



BID NUMBER: LDPWRI-B/20305

APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITIONS OF 12 PIT TOILETS, RENOVATIONS TO 20 ENVIROLOO TOILETS, 9 CLASSROOMS AND THE CONSTRUCTION OF MEDIUM ADMIN, 4 CLASSROOMS, 1 X 4 SEATER WATERBORNE TOILETS AND EXTERNAL WORKS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT

for

LIMPOPO DEPARTMENT OF EDUCATION (LDOE),

LIMPOPO PROVINCE

FRAMEWORK CATEGORY B (6GB AND ABOVE)

Issued by:

Limpopo Department of Public Works, Roads and Infrastructure
Works Towers Building
43 Church Street
Polokwane
0700

Contact Person: General Queries

Name : Mr NJ Motsopye,
Tel No. : 015 284 7126
Email : motsopyen@dpw.limpopo.gov.za

Technical: Technical Queries

Name : Mr K Modjadji
Tel No. : 083 673 5436
Email : ModjadjiM@dpw.limpopo.gov.za

Name of the Bidder :



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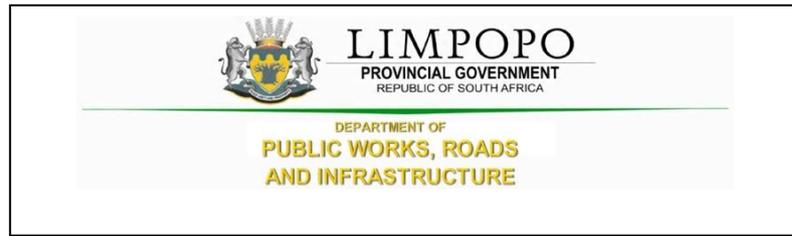
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CONTRACT No. LDPWRI-B/20305

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PART T1: TENDERING PROCEDURE

T1.1 Tender Notice and Invitation to Tender

The Limpopo Department of Public Works, Roads and Infrastructure invites tenderers from contractors appointed on the framework agreement on category A for **APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITIONS OF 12 PIT TOILETS, RENOVATIONS TO 20 ENVIROLOO TOILETS, 9 CLASSROOMS AND THE CONSTRUCTION OF MEDIUM ADMIN, 4 CLASSROOMS, 1 X 4 SEATER WATERBORNE TOILETS AND EXTERNAL WORKS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE)** for a period of 12 months. It is estimated that tenderers must have a CIDB contractor grading designation of **6 GB** or higher.

The conditions of the CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts **Gazette Notice No. 36190 of 25 February 2013** will be applicable on this project

Project Name	APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITIONS OF 12 PIT TOILETS, RENOVATIONS TO 20 ENVIROLOO TOILETS, 9 CLASSROOMS AND THE CONSTRUCTION OF MEDIUM ADMIN, 4 CLASSROOMS, 1 X 4 SEATER WATERBORNE TOILETS AND EXTERNAL WORKS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE) FOR A PERIOD OF 12 MONTHS	
Tender Number	LDPWRI- B/20305	
Tender documents availability	Limpopo Department of Public Works, Roads and Infrastructure website	
Address for submission of tenders	DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699.	
Closing date of the tender	As per Tender invite	
Closing time of the tender	As per Tender invite	
Compulsory briefing meeting (<i>Tenderers must sign the attendance register in the name of the tendering entity. Addenda (if any) will be issued only to those tendering entities appearing on the attendance register</i>)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
	Meeting venue	As per Tender invite
	Date	As per Tender invite
	Time:	As per Tender invite
Evaluation criteria	<ol style="list-style-type: none"> 1. Compliance with mandatory or compulsory requirements 2. Risk assessment on current projects 3. Price 4. Preference 	
Mandatory or Compulsory Requirements (<i>failure to submit or comply with these requirements will lead to automatic disqualification</i>)	Only tenderers who are appointed on category A registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations are eligible to have their tenders evaluated	
	Completed and signed Form of Offer	
	Priced Bills of Quantities	
	Record of addenda to tender documents	
	Proposed amendments and qualifications	
	Declaration on the status of Administration compliance	
	CIDB grading certificate (Valid CIDB)	
	Declaration of current projects	



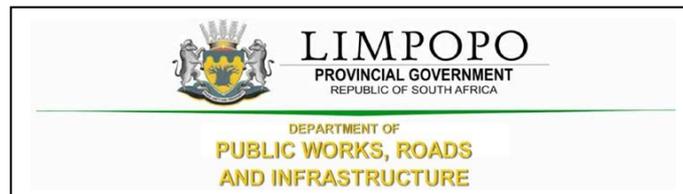
T1.2 Tender Data

Clause number	Tender Data
	<p>The conditions of tender are the Standard Conditions of Tender as contained in Annex C of Board Notice 423 of 2019 in Government Gazette No. 42622 of 08 August 2019, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of tenderers as an Annexure to this Tender Data.</p> <p>The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.</p> <p>The contractor shall achieve in the performance of the contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts Gazette Notice No. 36190 of 25 February 2013. In this case, contractor shall provide a minimum Contract Participation Goal (CPG) of 5% of the total project value and develop targeted enterprises stated under C3 of this document.</p> <p>The following variations, amendments and additions to the Standard Conditions of Tender as set out in the Tender Data below shall apply to this tender. Add the following to clauses in Standard Conditions of Tender:</p>
C.1.1	The Employer is the Department of Public Works, Roads and Infrastructure
C.1.2	<p>The Tender</p> <p>Part T1: Tendering procedures T1.1 Tender notice and invitation to tender T1.2 Tender data</p> <p>Part T2: Returnable documents T2.1 List of returnable documents T2.2 Returnable schedules</p> <p>The Contract Part C1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Joint Venture Agreement (If Applicable)</p> <p>The Contract Part C2: Pricing data C2.1 Pricing instructions C2.2 Bills of Quantities</p> <p>Part 3: Scope of work C3.1 Special Notes to Bidders C3.2 OHS Specifications</p> <p>Part 4: Site information C4 Drawings</p>

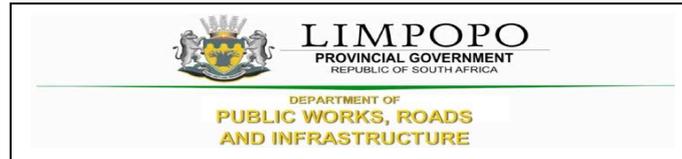
C.1.4	<p>The employer's representative is:</p> <p>Name : Mr K Modjadji Tel No. : 083 673 5436 Email : ModjadjiM@dpw.limpopo.gov.za</p> <p>However, all communications related to this bid should be directed to the persons indicated under Enquires on this tender document.</p> <p>Attention is also drawn to the fact that verbal information, given by the Employer's agent during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer. Only information issued formally by the Employer in writing to Tenderers will be regarded as amending the Tender Documents.</p>
C.1.5	The employer reserve to cancel the tender prior to the award of the tender.
C1.6.2	A competitive negotiation procedure will not be followed.
C1.6.3	A two-stage system will not be followed.
C.2.1	<p>Eligibility in respect of CIDB grading</p> <p>Only tenderers who are appointed on framework agreement category A and registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, are eligible to have their tenders evaluated.</p>
C2.2	<p>Cost of tendering</p> <p>The tenderer accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.</p>
C.2.7	<p>Compulsory site briefing</p> <p>A compulsory briefing meeting will be held as per Tender invite</p> <p>Failure to attend the site briefing will result in the bidders not being considered for the project</p> <p>Tenderers must sign the attendance list in the name of the tendering entity. Addenda (if any) will be issued only to those tendering entities appearing on the attendance list.</p>
C.2.11	<p>Alterations to the documents</p> <p>Bidders are required to not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations</p>
C.2.12	<p>Alternative tender offer</p> <p>No alternative tender offer is permitted in this tender.</p>
C.2.13.2	<p>Replace sub-clause C.2.13.2 with the following; Return all returnable documents to the employer after completing them in by writing in non-erasable black ink (Black pen)</p>
C.2.13.3	Parts of each tender offer communicated on paper shall be submitted as an original
C.2.13.4	The tender shall be signed by a person duly authorized to do so.

C.2.13.5	<p>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:</p> <p>Location of tender box: DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699 Identification details: Sealed Tender with Tender reference number, Title of Tender and the closing date and time of the tender.</p>
C.2.15.1	<p>The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p>
C.2.16.1	<p>The tender offer validity period is 120 days.</p>
C.2.16.2	<p>The tender accepts that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16.1 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).</p>
C.3.1	<p>The tenderer is required to indicate how they claim points for each preference point system and attached relevant supporting documents. The specific goals for claiming of preference points include the following:</p> <ul style="list-style-type: none"> - Persons who had no franchise in national elections prior to 1983 and 1993 - Women - Disabled persons - Promotion of SMMEs - Enterprises located in Limpopo Province - Promotion of youth - South African owned enterprises
	<p><i>CIDB Grading Certificate</i></p> <p>Tenders are required to provide proof of registration with the CIDB register of contractors indicating the category of registration, grading as well as the CRS number of the tenderer.</p> <p><i>Letter of Good Standing</i></p> <p>Tenderer's are required to submit, bound with the tender submission, a letter of good standing from the compensation commissioner indicating that the bidder is in good standing.</p>
C3.2	<p>Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.</p>
C.3.4.1	<p>Tenders will not be opened immediately after the closing time for tenders.</p>

C.3.11	<p>The tenderers will be evaluated in four stages</p> <ul style="list-style-type: none"> (i) Stage 1: Compliance with mandatory requirements as stated in Part T1.1 (ii) Stage 2: Risk assessment on current projects (iii) Stage 3: Price (iv) Stage 4: Preference <p>The technical capacity (functionality) of the contractors will not be evaluated any further during evaluation of the RFQ. However, the contractors will be required to declare the status of their key staff and any administrative compliance. In cases where there are changes in the key staff, the contractor should provide CVs and qualifications of the new staff to LDPWR&I. The new staff should have similar skills, qualifications and experience as the staff submitted during tender. Similarly, the contractors will be expected to provide an update on any changes in their administrative compliances – and should submit the required SBD document/forms in such cases.</p> <p>The award will only be issued to contractors with valid Tax Clearance certificates, active CIDB grading and the contractor who meets all the legislative requirement – this shall be verified by SCM in line with the departmental SCM Policy.</p> <p>The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade.¹</p> <ul style="list-style-type: none"> a) Stage 1: Administrative Compliance: The Compliance or compulsory documents and returnables are detailed in Section T.2.1 of this tender document. Failure to submit, complete or comply with these requirements will lead to automatic disqualification. b) Stage 2: Risk assessment on current projects <p>The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade. Should it exceed, the bidder will therefore not be appointed.</p>
	<p>Stage 3 and 4:</p> <p>The procedure for final evaluation of responsive tenders is Method 2 (Financial offer and preference). The total number of tender evaluation points (T_{EV}) shall be determined in accordance with the following formula.</p> $T_{EV} = N_{FO} + N_P$ <ul style="list-style-type: none"> a) N_{FO} is the number of tender evaluation points awarded for the financial offer made. The score for financial offer is calculated using the following formula: $P = A * \left(1 - \frac{(P_o - P_m)}{P_m}\right)$ <p>Where:</p> <p>A is 80 since the estimated financial value of works inclusive of VAT is equals or is less than R 50,000,000.00.</p> <p>P is the points awarded to the bid under consideration</p> <p>P_m is the lowest Comparative bid price</p> <p>P_o is the comparative price under consideration</p> b) N_P is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferencing Schedule in 3.18



PART T2: RETURNABLE DOCUMENTS



T2.1 : LIST OF RETURNABLE DOCUMENTS

The following documents will form part of the documents submitted to the Contractors as part of the Request for Proposals:

A -- MANDATORY REQUIREMENTS

- 2.1 Fully completed Form of Offer (Fully Completed and Signed Form of Offer)
- 2.2 Bills of Quantities (P&Gs are allowed to have a lump sum total in the P&Gs Summary Page and the rest of the Bill of Quantities trades must be completed in full (Rates and Amounts))
- 2.3 Record of Addenda to tender documents (Records of addendum must be captured in full, whether applicable or not)
- 2.5 Declaration on the status of Administration compliance (Fully completed, circled and signed)
- 2.6 CIDB grading certificate (Valid CIDB)
- 2.7 Declaration of current projects (Fully completed, circled and signed)

B – NON- MANDATORY REQUIREMENTS

- 2.8 SBD 1 (Fully Completed and Signed)
- 2.9 SBD 4 (Fully Completed and Signed). False declaration by the bidder will render the proposal non-responsive and will not be considered
- 2.9 SBD 6.1 (Failure on the part of a bidder to complete and submit proof or documentation required in terms of this tender to claim points for specific goals with tender, will be interpreted to mean that preference points for specific goals are not claimed)

SPECIFIC GOALS	REQUIRED ATTACHMENT
Persons who had no franchise in national elections prior to 1983 and 1993	Attach certified copy of South African ID as proof
Women	Attach Director's certified copy of South African ID as proof + company registration documents
Disabled Persons	Bidder with disability must attach medical certificate completed by registered medical practitioner which is registered with Health Professions Council of South Africa (HPCSA) as proof
Promotion of SMMEs	Attach latest financial statement as proof
Enterprises located in Limpopo Province	N.B: The physical address given in the SBD 1 will be used and it should be consistent or the same as the preferred address in the Central Supplier Database Report a) A Title deed, Letter from a Traditional Authority or Municipal Statement which must not be older than three (3) months; or b) A Formal Lease Agreement together with Lessor's Municipal Account or Letter from Traditional Authority
Promotion of Youth	Attach Director's certified copy of South African ID as proof
South African owned enterprises	Attach Director's certified copy of South African ID as proof + company registration documents

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2.10 Attach full CSD Report (For verification of the required attachments above)

2.11 Proposed amendments and qualifications (Proposed amendments and qualifications must be captured in full, whether applicable or not)

Failure by the service provider to submit or complete item 2.1, 2.2, 2.3, 2.5, 2.6, and 2.7 will render their proposal not responsive and will not be considered.

The bidder should also not appear on the National Treasury's list of black listed entities.

C -- SPECIAL NOTES TO BIDDERS AND DEPARTMENTAL RIGHTS

The following special conditions are for compliance and attention to bidders:

I.1 LDPWR&I reserve the right to call interviews with short-listed bidders before final selection.

I.2 LDPWR&I reserve the right to conduct supplier due diligence prior to final award or at any time during the contract period. This may include surprise site visits.

I.3 LDPWR&I reserves the right to appoint the bidder that proves to be fully capable and qualifies to handle and execute the job.

I.4 The proposals submitted must be in line with the detailed specification.

I.5 LDPWR&I reserve the right to cancel or withdraw this bid if:

- i. Due to changed circumstances, there is no longer a need for these services; or
- ii. Funds are no longer available to cover the total envisaged expenditure; or
- iii. No acceptable bids are received; or
- iv. There is a material irregularity in the Bid process.

1.6 In the case of sub-contracting or joint venture agreement, LDPWR&I will enter into a single contract with the principal bidder.

1.7 Bidders who are not registered on Central Supplier Database (CSD) must register before submission of bids.

1.8 Any completion of the bid document in pencil or erasable ink will not be acceptable and will automatically disqualify the submitted bid.

1.9 Successful bidder will be required to sign and enter into a formal contract upon the award.

1.10 Notwithstanding shortcomings and/or inconsistencies, if any, in this specification, which is only a minimum specification, a bidder shall make provision for a complete solution that will deliver the required service efficiently and cost-effectively.

1.11 Bid documents must be submitted physically to the closing address as reflected on the Request for Quotation/Tender.

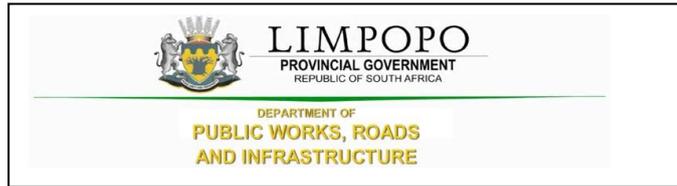
1.12 Quotations/Tenders received after the closing date and time will not be accepted for consideration.

1.13 This request for bid document contains confidential information about LDPWR&I, which has been provided to supply potential bidders with the data necessary to provide a holistic response.

1.14 No part of the contents may be used, copied, disclosed or conveyed in whole or in part to any party, in any manner whatsoever without the prior written permission of LDPWR&I.

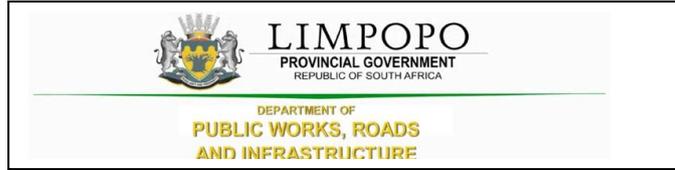
1.15 Any reproduction or transmission of information contained in this document except for the sole purpose of responding to this bid is strictly prohibited.

1.16 References to LDPWR&I must not be made in any literature, promotional material, and brochures or sales presentations without the express written consent of LDPWR&I



T 2.2: RETURNABLE SCHEDULE

	Document Name	Returnable document
1.	Fully completed Form of Offer	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.	Priced Bills of Quantities	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.	Record of Addenda to tender documents	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.	Proposed amendments and qualifications	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.	Proof of specific goals for award of the preference points	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.	SBD 1. Invitation to Tender	<input type="checkbox"/> Yes <input type="checkbox"/> No
7.	SBD 6.1: Reference Points claim form in terms of the Preferential Procurement Regulations 2022 or amended	<input type="checkbox"/> Yes <input type="checkbox"/> No
8.	Declaration on the status of Administration compliance.	<input type="checkbox"/> Yes <input type="checkbox"/> No
9.	Proof of CIDB class grading: 7GB or higher.	<input type="checkbox"/> Yes <input type="checkbox"/> No
10.	Full CSD Report	<input type="checkbox"/> Yes <input type="checkbox"/> No
11.	Declaration of current projects	<input type="checkbox"/> Yes <input type="checkbox"/> No



Declaration on the status of administrative compliance

Please indicate, by circling either **Yes** or **No**, whether the administrative information submitted with the original framework tender documents have changed or not. If yes, kindly provide the particulars below with any supporting documents.

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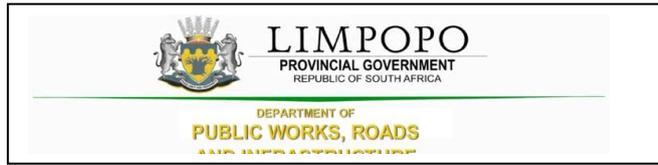
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Signed Date _____

Name Position _____

Enterprise



Record of Addenda to tender documents

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

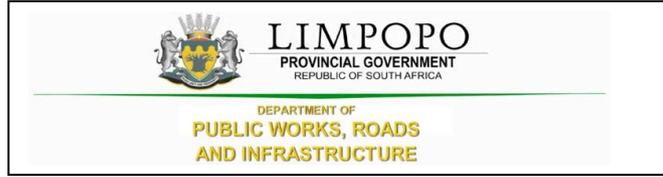
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed Date

Name Position

Tenderer



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.

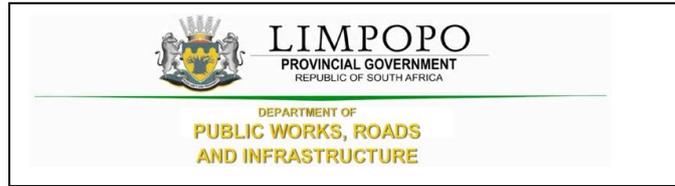
The Tenderer's attention is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

Page	Clause or item	Proposal

Signed _____ Date _____

Name _____ Position _____

Tenderer _____



SBD 1

PART A: INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE LIMPOPO DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE

BID NUMBER:	LDPWRI-B/20305	CLOSING DATE	As per Tender Advert	CLOSING TIME:	As per Tender Advert
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DESCRIPTION
REFURBISHMENT AND ADDITIONS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT

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

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE.

Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699.

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO

CONTACT PERSON: Mr. NJ Motsopye

TELEPHONE NUMBER	0152847126	E-MAIL ADDRESS	motsopyen@dpw.limpopo.gov.za
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CONTACT PERSON (TECHNICAL): Mr. K Modjadji

TELEPHONE NUMBER	083 673 5436	E-MAIL ADDRESS	ModjadjiM@dpw.limpopo.gov.za
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SUPPLIER INFORMATION

NAME OF BIDDER

POSTAL ADDRESS

STREET ADDRESS

TELEPHONE NUMBER	CODE	NUMBER
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CELLPHONE NUMBER

E-MAIL ADDRESS

VAT REGISTRATION NUMBER

SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:	OR	CENTRAL SUPPLIER DATABASE No:	MAAA
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QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
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QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	<input type="checkbox"/> YES <input type="checkbox"/> NO
DOES THE ENTITY HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	<input type="checkbox"/> YES <input type="checkbox"/> NO

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

PART B: TERMS AND CONDITIONS FOR BIDDING

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

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

SIGNATURE OF BIDDER:

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

DATE:

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 interest² 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 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.

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

2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ 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.

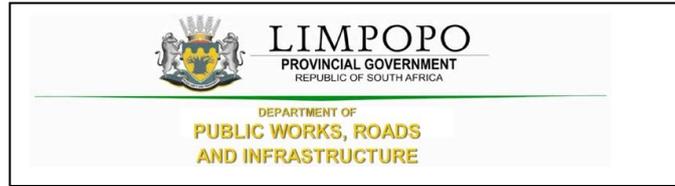
³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature Date

.....
Position Name of bidder



SBD 6.1

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) ~~The applicable preference point system for this tender is the 90/10 preference point system.~~
- b) The applicable preference point system for this tender is the **80/20** preference point system.
- c) Either the **90/10 or 80/20 preference point system** will be applicable in this tender. The lowest/highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

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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 OR 90/10 PREFERENCE POINT SYSTEMS

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \\ \mathbf{Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)} \end{array}$$

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:

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \\ \mathbf{Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

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

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

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

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Persons who had no franchise in national elections prior to 1983 and 1993	6	
Women	3	
Disabled persons	2	
Promotion of SMMEs	2	
Enterprises located in Limpopo Province	4	
Promotion of youth	1	
South African owned enterprises	2	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.4. Name of company/firm.....

4.5. Company registration number:

4.6. 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]

4.7. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the

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points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:
.....
.....
.....



DECLARATION OF CURRENT PROJECTS

Current value refers to current value of projects for both General Building (GB) and Civil Engineering (CE).

Please list the current projects which your company is busy executing in the table below.

If no projects at the moment the bidder must indicate/write on this table.

Misrepresentation of facts will render your bid non-responsive.

Table 1 List of current projects executed by the bidder

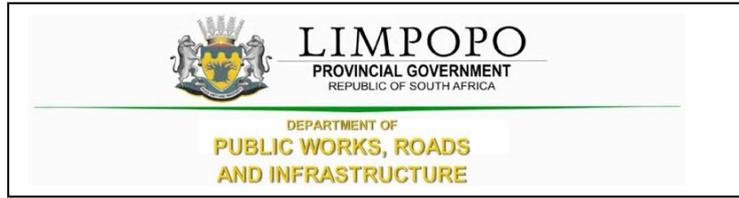
1. Do you have the current projects being executed Yes/No? (circle the correct answer)
2. Please note that it is compulsory to answer the question above and if the answer is yes, complete the table below. Failure by the service provider/bidder to answer the question above or complete the table below will render their proposal not responsive and will not be considered.

Project Description	Project Value	Start date	Planned end date	Client Name	Contact Person number

Signed _____ Date _____

Name _____ Position _____

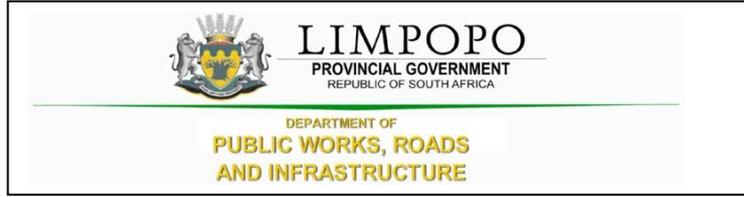
Enterprise _____



THE CONTRACT



PART C1: AGREEMENT AND CONTRACT DATA



C1.1. FORM OF OFFER AND ACCEPTANCE

Offer

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

REFURBISHMENT AND ADDITIONS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT.

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

By the representative of the tenderer, deemed to be duly authorized, signing this part of the 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 PRICE INCLUSIVE OF VALUE ADDED TAX IS (CONTRACT PRICE)

Rand (in words); R.....

.....

(in figures) R.....

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(s)

Name(s)

Capacity

For the tenderer:

Name & signature of witness

Date

Acceptance (To be completed by the employer – not the bidder)

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 Consultant 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 Form of Offer and Acceptance)
- Part C2 Pricing Data
- Part C3 Scope of Work

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

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the 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 two weeks of 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 *Consultant*) 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.

For the Employer

Signature

Name

Capacity

Name and address of organization

Signature and Name of Witness

Signature

Name

Capacity

Schedule of Deviations

- 1 Subject
- Details
-
-
-

- 2 Subject
- Details
-
-
-

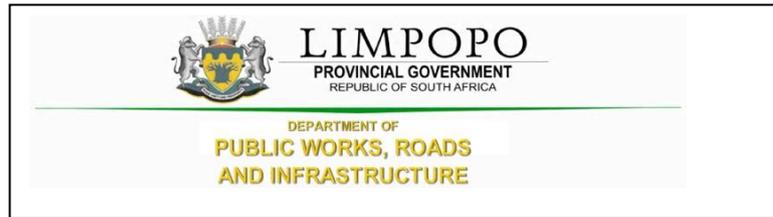
- 3 Subject
- Details
-
-
-

- 4 Subject
- Details
-
-
-

By the duly authorised representatives signing this agreement, the *Employer* and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the *Employer* during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

.....



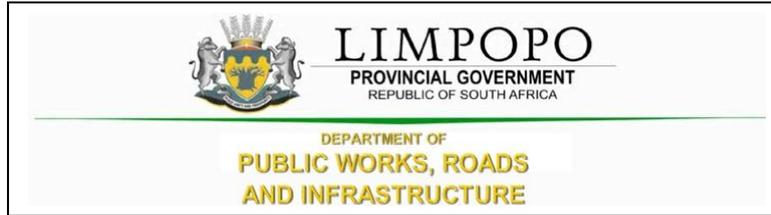
C2.1 CONTRACT DATA

The Conditions of Contract are clauses 1 to 41 of the **JBCC Series 2000 Principal Building Agreement (Edition 4.1 of March 2005)** published by the Joint Building Contracts Committee.

Copies of these conditions of contract may be obtained from the Association of South African Quantity Surveyors (011-3154140), Master Builders Association (011-205-9000; 057- 3526269) South African Association of Consulting Engineers (011-4632022) or South African Institute of Architects (051-4474909; 011-4860684; 053-8312003;)

The JBCC Principal Building Agreement makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities, and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the JBCC Principal Building Agreement.

The contractor shall achieve in the performance of the contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the **CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts Gazette Notice No. 36190 of 25 February 2013.**"



PART C2: PRICING DATA

C2.1 Pricing instruction

- The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work in accordance with the provisions of the Model Bills of Quantities or Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- The agreement is under the JBCC N/S Subcontractor Agreement for use with the JBCC PBA (Edition 4.1 code 2101 March 2005) form of contract with Preliminaries (Code 2103 May 2005) incorporating the State Provisions of cl 41.0.
- 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.
- The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
- An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- 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.
- 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.
- The bidder shall set aside a minimum of 5 % of the project value for sub-contractor/s and determine the amount to be paid for the Contract Participation Goal (CPG).



PART C2.2: BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 1</u>			
	<u>BILL NO. 1</u>			
	<u>PRELIMINARIES</u>			
	<u>NOTE</u>			
	i) The agreement is to be the JBCC Series 2000 Principal Building Agreement (Edition 4.1) prepared by the Joint Building Contracts Committee, March 2005			
	ii) The preliminaries are to be the JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee, March 2005 edition and shall be deemed to be incorporated herein			
	iv) Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading			
	iii) Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary			
	v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")			
	vi) If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time			
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

Brought Forward

R

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

SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT

Definitions (A1)

1 Definitions and interpretation (clause 1)

Clause 1.1 Definition of "**Agreement**" is amended by replacing it with the following:

Agreement means the agreement arising from the signing of the Form of Offer and Acceptance by the parties.

Clause 1.1 Definition of "**Bills of Quantities**" is amended by adding the following:

"...and the Pricing Instructions contained in the Pricing Data" after the word measuring system.

Clause 1.1 Definition of "**Contract Documents**" is amended by adding the following:

".....this Agreement and all other documents referenced therein.." after the word this document

Clause 1.1 Definition of "**Contract Drawings**" is amended by replacing it with the following:

Contract Drawings means the drawings upon which the tender was accepted and used in preparing the bills of quantities and are available for viewing at the offices of the Principal Agent at the time of tender

Clause 1.1 Definition of "**Contract Sum**" is amended by replacing it with the following:

Contract Sum means the total of prices in the Form of Offer and Acceptance.

Carried Forward

R

Section No. 1
 PRELIMINARIES
 Bill No. 1
 PRELIMINARIES
CLUSTER G

Brought Forward		R
<p>Clause 1.1 Definition of "Schedule" is amended by adding the following:</p> <p>".....and in the Contract Data". at the end on the sentence ending with agreement</p> <p>Clause 1.1 Definition of "Commencement Date" is added:</p> <p>"Commencement date" means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect</p> <p>Clause 1.1 Definition of "Construction Guarantee" is amended by replacing it with the following:</p> <p>"Construction guarantee" means guarantee at call obtained by the contractor from an institution approved by the employer in terms of the employer's construction guarantee form as selected in the schedule</p> <p>Clause 1.1 Definition of "Construction Period" is amended by replacing it with the following:</p> <p>"Construction period" means the period commencing on the commencement date and ending on the date of practical completion</p> <p>Clause 1.1 Definition of "Corrupt Practice" is added:</p> <p>"Corrupt Practice" means the offering , giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution</p> <p>Clause 1.1 Definition of "Fraudulent Practice" is added:</p> <p>"Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open</p>		
Carried Forward		R
<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>		

<p style="text-align: center;">Brought Forward</p> <p>competition.</p> <p>Clause 1.1 Definition of "Interest" is amended by replacing it with the following:</p> <p>"Interest" means 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).</p> <p>Clause 1.1 Definition of "Principal Agent" is amended by replacing it with the following:</p> <p>"Principal Agent" means the person or entity appointed by the employer and named in the schedule. 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 a representative of the employer as named in the schedule.</p> <p>Clause 1.1 Definition of "Security" is amended by replacing it with the following:</p> <p>Security" means the form of security provided by the employer or contractor, as stated in the schedule, from which the contractor or employer may recover expense or loss</p> <p>1.6 Any notice given may be delivered by hand, sent by prepaid registered post or telefax. Notice shall be presumed to have been duly given when:</p> <p>1.6.4 No clause</p>			R	
<p>Fixed</p> <p>Value Related</p>		<p>Item</p> <p>Item</p>		
Carried Forward			R	
<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>				

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
 MAKGOPELE PRIMARY SCHOOL
 LDPWRI-B20305

	Brought Forward			R
	Time Related	Item		
	<u>Objective and Preparation (A2 - A14)</u>			
2	Offer, acceptance and performance (clause 2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
3	Documents (clause 3)			
	Clause 3.2.1 is amended by replacing "14.1" with "14.0"			
	Clause 3.7 is amended by the addition of the following:			
	The contractor shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site , to which the employer, principal agent and agents shall have access at all times.			
	Clause 3.10 is amended by replacing the second reference to " principal agent " with the word " employer "			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
4	Design responsibility (clause 4)			
	Contractor is permitted to design the prefabricated building to the satisfaction or written approval from the client			
	Fixed	Item		
	Value Related	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
 MAKGOPELE PRIMARY SCHOOL
 LDPWRI-B20305

	Brought Forward			R
	Time Related	Item		
5	Employer's agents (clause 5)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
6	Contractor's site representative (clause 6)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
7	Compliance with laws and regulations (clause 7)			
	Note: A separate clause has been included in Section C: Specific Preliminaries of the bills of quantities for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
8	Works risk (clause 8)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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	Brought Forward		R	
9	<p>Indemnities (clause 9)</p> <p>Clause 9.0 is amended by adding Clause 9.1.4:</p> <p>The contractor indemnifies and holds harmless the employer against all liability, losses, claims, damages, penalties, actions, proceedings or judgments (collectively referred to as "Losses") arising from any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of the equipment of part thereof otherwise than in accordance with the provisions of the specification. All payments and royalties payable in one sum or by installments or otherwise shall be included by the contractor in the price and shall be paid by him to those to whom they may be payable. The contractor shall reimburse the employer for all legal and other costs and expenses, including without limitation attorney's fees on attorney-client scale incurred by the employer in connection with investigation, defending or settling any Losses in connection with pending or threatening litigation in which the employer is a party.</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
10	<p>Works insurances (clause 10)</p> <p>Clause 10.0 is amended by the addition of the following clauses</p> <p>10.5 Damage to the Works</p> <p>(a) Without in any way limiting the contractor's obligations in terms of the contract, 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</p>	<p>Item</p> <p>Item</p> <p>Item</p>		
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	Brought Forward		R
<p>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</p> <p>b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works</p> <p>(c) The employer shall carry the risk of damage to or destruction of the works and material paid for by the employer that is the result of the excepted risks as set out in 10.6</p> <p>(d) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof</p> <p>10.6 Injury to Persons or loss of or damage to Properties</p> <p>(a) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable</p> <p>(b) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable 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, arising out of or in the course of or by reason of the execution of the works unless due to any</p>			
	Carried Forward		R
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<p style="text-align: center;">Brought Forward</p> <p>act or neglect of any person for whose actions the employer is legally liable</p> <p>(c) The contractor shall, upon receiving a contract instruction from the principal agent, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the employer shall be entitled to cause it to be made good and to recover the cost thereof from the contractor or to deduct the same from amounts due to the contractor</p> <p>(d) The contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the employer for the purpose of executing the works until the issue of the certificate of practical completion</p> <p>(e) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the contractor shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the works has been completed</p> <p>(f) The contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the works</p> <p>10.7 High risk insurance</p> <p>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 subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:</p>	R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>	R	

Brought Forward			R
<p>10.7.1 Damage to the works</p> <p>The contractor shall, from the commencement date of the works 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</p> <p>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.</p> <p>10.7.2 Injury to persons or loss of or damage to property</p> <p>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</p> <p>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 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</p> <p>10.7.3 It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the contractor's obligations in terms of the</p>			
Carried Forward			R
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	contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works , submit to the employer proof of such insurance policy, if requested to do so			
	10.7.4 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 10.7.1; 10.7.2 and 10.7.3. 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			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
11	Liability insurances (clause 11)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
12	Effecting insurances (clause 12)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
13	No clause (clause 13)			
		Item		
14	Security (clause 14)			
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14.0 Replace the entire clause 14.0 with the following:			
14.0 Security			
14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)			
14.1.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(A)			
14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor			
14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule . Such security shall be provided to the employer within twenty-one (21) calendar days from commencement date . Should the contractor fail to select the security to be provided or should the contractor fail to provide the employer with the selected security within twenty-one (21) calendar days from commencement date , the security in terms of 14.7 shall be deemed to have been selected.			
14.3 Where the security as a cash deposit of ten per cent (10%) of the contract sum (excluding VAT) has been selected:			
14.3.1 The contractor shall furnish the employer with a cash deposit equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date .			
14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer			
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<p>shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT), and refund the balance to the contractor.</p> <p>14.3.3 Within twenty-one (21) calendar days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor.</p> <p>14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor.</p> <p>14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor.</p> <p>14.3.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party.</p> <p>14.4 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:</p> <p>14.4.1 The contractor shall furnish the employer with an acceptable variable construction guarantee equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date</p> <p>14.4.2 The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form included in the invitation to tender</p> <p>14.4.3 The employer shall return the variable construction guarantee to the contractor within fourteen (14) calendar days of it expiring</p> <p>14.4.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer</p>		
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shall issue a written demand in terms of the variable construction guarantee			
14.5 Where security as a fixed construction guarantee of five per cent (5%) of the contract sum (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the payment certificate (excluding VAT) has been selected:			
14.5.1 The contractor shall furnish a fixed construction guarantee to the employer equal in value to five per cent (5%) of the contract sum (excluding VAT)			
14.5.2 The fixed construction guarantee shall come into force on the date of issue and shall expire on the date of the last certificate of practical completion			
14.5.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of it expiring			
14.5.4 The payment reduction of the value certified in a payment certificate shall be in terms of 31.8(A) and 34.8			
14.5.5 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer shall be entitled to issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or may do both			
14.6 Where security as a cash deposit of five per cent (5%) of the contract sum (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT) has been selected:			
14.6.1 The contractor shall furnish the employer with a cash deposit equal in value to five per cent (5%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date			
14.6.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall refund the cash deposit in total to the contractor			
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14.6.3 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(A)				
14.6.4 Where the employer has a right of recovery against the contractor in terms of 33.0, the employer may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both				
14.7 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected:				
14.7.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(B)				
14.7.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the contractor				
14.8 Payments made by the guarantor to the employer in terms of the fixed or variable construction guarantee shall not prejudice the rights of the employer or contractor in terms of this agreement				
14.9 Should the contractor fail to furnish the security in terms of 14.2 the employer , in his sole discretion, and without notification to the contractor , is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT), where after 14.7 shall be applicable				
Fixed		Item		
Value Related		Item		
Time Related		Item		
Carried Forward				R
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	Brought Forward		R
	<u>Execution (A15 - A23)</u>		
15	Preparation for and execution of the works (clause 15) Clause 15.1.1 is amended by replacing it with: No clause Clause 15.1.2 is amended by replacing it with: The security selected in terms of 14.0 Clause 15.1 is amended by the addition of the following clause: 15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) or latest edition, revision and ammendments, within twenty-one (21) calendar days of commencement date Clause 15.2.1 is amended by replacing it with the following clause: Give the contractor possession of the site within ten (10) working days of the contractor complying with the terms of 15.1.	Fixed Item Value Related Item Time Related Item	
16	Access to the works (clause 16)	Fixed Item Value Related Item Time Related Item	
	Carried Forward		R
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	Brought Forward			R
17	Contract instructions (clause 17)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
18	Setting out of the works (clause 18)			
	<i>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 encroachments</i>			
	<i>The contractor shall perform tolerance control checks regularly throughout the contract period and report on this at regular interval to the Principal Agent in the approved format. Should the contractor fail to comply with this requirement to the satisfaction of the the Principal Agent, progressively as the structure is being constructed, the Employer will commission a Registered Land Surveyor to do so on the Contractor's behalf and at the Contractor's Expense.</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
19	Assignment (clause 19)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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20	Nominated sub-contractors (clause 20)			
	Clause 20.0			
	Clause 20.1.3 is amended by replacing it with the following:			
	No Clause			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
21	Selected sub-contractors (clause 21)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
22	Employer's direct contractors (clause 22)			
	<i>The Contractor shall allow the direct contractors and employers agents access to the work, allocate reasonable space in the building for storage of their materials, tools and equipment, all to the satisfaction of the Principal Agent. The contractor shall also allow the direct contractors, etc. free of charge, use of their ablution facilities and water and power supply to the and shall in no way hinder or prevent the execution of their works. Attendance may be priced against the relevant specified items in the bills of quantities.</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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	Brought Forward			R
23	Contractor's domestic sub-contractors (Clause 23)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>COMPLETION</u>			
	<u>Completion (A24-A30)</u>			
24	Practical completion (clause 24)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
25	Works completion (clause 25)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
26	Final completion (clause 26)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
27	Latent defects liability period (clause 27)			
	Fixed	Item		
	Value Related	Item		
	Carried Forward			R
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	Brought Forward			R
	Time Related	Item		
28	Sectional completion (clause 28)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
29	Revision of date of practical completion (clause 29)			
	Clause 29.1.1 shall be deemed to be omitted and replaced by the following:			
	Inclement weather shall be defined as weather in excess of the average rainfall (volume and period) for each calendar month over the past ten (10) years as recorded by the nearest commonly recognised weather bureau in the region of the project			
	It shall be deemed that the contractor has adequately allowed in his programme and tendered rates for expenses which might result from delays due to average or below rainfall as described above			
	Add Clause 29.9 as follows:			
	Revision to the date for practical completion shall only be considered when work on the critical path of the agreed programme for the works is delayed.”			
	Add Clause 29.10 as follows:			
	Clause 29.10 - Acceleration			
	Clause 29.10.1 Irrespective of whether or not the principal agent rules that the contractor is entitled to an extension of time or a revision of the date for practical completion , the principal agent shall nevertheless, at any time, be entitled to instruct the contractor in writing to accelerate the			
	Carried Forward			R
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	<p>progress of the remaining works to ensure that the works are completed by the original date for practical completion or revised date as the case may be.</p> <p>Clause 29.10.2 Upon receipt of such instruction, the contractor shall take all necessary steps to ensure that the works are completed timeously including the provision by him of additional resources, plant, manpower, etc and the working overtime or additional overtime beyond that contemplated at the time of tender (at all times adhering to the regulations and requirements of all authorities) and by all other adequate and proper means and methods. The contractor shall prove that such steps are being taken if called upon to do so.</p> <p>Clause 29.10.3 The contractor's entitlement to compensation arising out of or in respect of any revision to the date for practical completion that may have been granted by the principal agent or alternatively where the principal agent has instructed the contractor to accelerate, shall be adjudicated strictly in terms of clause 32.</p>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
30	<p>Penalty for non-completion (clause 30)</p> <p>Clause 30 is amended by replacing reference to 36.3 at end of sentence with 36.0</p> <p>The penalty per calender day shall be calculated at 0.05% of contract sum excluding contingency allowance and CPAP</p>			
	Fixed	Item		
	Value Related	Item		
	Carried Forward			R
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	Brought Forward		R
	Time Related	Item	
	<u>Payment (A31 - A35)</u>		
31	<p>31.5.2 Security adjustments in terms of 14.0 or 31.8</p> <p>31.8 Amend as follows:</p> <p>31.8(A) Where a security is selected in terms of 14.1; 14.5 or 14.6, the value of the works in terms of 31.4.1 and of the materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:</p> <p style="padding-left: 40px;">31.8(A).1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion</p> <p style="padding-left: 40px;">31.8(A).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</p> <p style="padding-left: 40px;">31.8(A).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 34.6</p> <p style="padding-left: 40px;">31.8(A).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 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.</p> <p>31.8(B) Where security is a payment reduction in term of 14.7 has been selected the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:</p> <p style="padding-left: 40px;">31.8(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion</p>		
	Carried Forward		R
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	Brought Forward		R
	<p>31.8(B).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</p> <p>31.8(B).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 34.6</p> <p>31.8(B).4 One hundred per cent (100%) of such value in the final payment certificate in terms of 34.6 except were 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</p> <p>Clause 31.9 is amended by replacing "seven (7) calender days" with "thirty (30) calender days" and by deleting the words "subject to the contractor giving the employer a tax invoice for the amount due</p> <p>31.12 Delete the following: "Payment shall be subject to the employer giving the contractor a tax invoice for the amount due."</p>		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
32	<p>Adjustment to the contract value (clause 32)</p> <p>Clause 32.0</p> <p>Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:</p> <p>"due to no fault of the contractor"</p>		
	Fixed	Item	
	Carried Forward		R
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	Brought Forward			R
	Value Related	Item		
	Time Related	Item		
33	Recovery of expense and loss (clause 33)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
34	Final account and final payment (clause 34)			
	Clause 34.0			
	Clause 34.2 is amended by inserting # next to 34.2			
	Clause 34.8 is amended by replacing with " The principal agent shall certify one hundred per cent (100%) of the amount of the final account in the final payment certificate ."			
	Clause 34.13 is amended by replacing "seven (7) calendar days " with "thirty (30) calendar days " and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
35	Payment to other parties (clause 35)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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	Brought Forward		R
	<u>Cancellation (A36-A39)</u>		
36	<p>Cancellation by employer - contractor's default (clause 36)</p> <p>Clause 36.1 is amended by the additions of the following clauses:</p> <p>36.1.3 refuses or neglects to comply strictly with any of the conditions of contract</p> <p>36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa</p> <p>36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract</p> <p>Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "principal agent" with "employer"</p> <p>Clause 36.0 is amended by the addition of the following clause:</p> <p>Clause 36.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p>		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
	Carried Forward		R
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	Brought Forward		R	
37	<p>Cancellation by employer - loss and damage (clause 37)</p> <p>Clause 37.3.5 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"</p> <p>Clause 37.0 is amended by the addition of the following clause:</p> <p>37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
38	<p>Cancellation by contractor - employer's default (clause 38)</p> <p>Clause 38.5.4 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"</p> <p>Clause 38.0 is amended by the addition of the following clause:</p> <p>Clause 38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p style="text-align: right;">Fixed</p>			
	Carried Forward		R	
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	Brought Forward			R
	Value Related	Item		
	Time Related	Item		
39	Cancellation - cessation of the works (clause 39)			
	Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one-hundred and twenty (120) working days of completion of such report"			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>Dispute Settlement (A40)</u>			
40	Disputes Settlement (clause 40)			
	Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"			
	Clause 40.6 is amended by removing the reference to:			
	No clause			
	Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:			
	Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>State Provision (A41)</u>			
41	State Substitutions (clause 41)			
	Carried Forward			R
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Brought Forward	R
<p>Delete in the Substitute Provisions (41.0 State Clauses) clauses 40.2.1, 40.2.2, 40.3, 40.4, 40.5 and 40.6 and replace with the following:</p> <p>40.1 Should any dispute between the employer, his agents or principal agent on the one hand and the contractors on the other arise out of this agreement, such dispute shall be referred to adjudication.</p> <p>40.2 Adjudication shall be conducted in accordance with the edition of the JBCC Rules for Adjudication current at the time when the dispute is declared. The party, which raises the dispute, shall select three adjudicators from the panel of adjudicators published by the South African Institution of Civil Engineering or Association of Arbitrators (Southern Africa), determine their hourly fees and confirm that these adjudicators are available to adjudicate the dispute in question. The other party shall then select within 7 days one of the three nominated adjudicators, failing which the chairman for the time being of the Association of Arbitrators (Southern Africa) shall nominate an adjudicator. The adjudicator shall be appointed in terms of the Adjudicators Agreement set out in C1.4 .</p> <p>40.3 If provided in the schedule, a dispute shall be finally settled by a single Arbitrator to be agreed on between the parties or, failing such agreement within 28 days after referring the dispute to Arbitration, an Arbitrator nominated by the chairman for the time being of the Association of Arbitrators (Southern Africa). Any such reference shall be deemed to be a submission to the arbitration of a single arbitrator in terms of the Arbitration Act (Act No 42 of 1965, as amended), or any legislation passed in substitution therefore. In the absence of any other agreed procedure, the arbitration shall take place in accordance with the Rules for the Conduct of Arbitrations issued</p>	R
<p style="text-align: center;">Carried Forward</p> <p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>	R

	Brought Forward		R	
	by the Association of Arbitrators (Southern Africa) which are current at the time of the referral to arbitration. The Arbitrator shall, in his award, set out the facts and the provisions of the contract on which his award is based.			
	40.4 If the schedule provides for court proceedings to finally resolve disputes, disputes shall be determined by court proceedings.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>Contract Variables (A41)</u>			
42	The Schedule (clause 42)			
	<i>Tenderers are referred to the Contract Data and Notes to Tenderes for variable pertaining to this contract</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>SECTION B: PRELIMINARIES</u>			
	<u>Definition and interpretation (B1)</u>			
43	Definition and interpretation			
	See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section			
	Fixed	Item		
	Value Related	Item		
	Carried Forward		R	
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	Brought Forward			R
	Time Related		Item	
	<u>Documents (B2)</u>			
44	Checking of documents (B2.1)			
	<i>These bills of quantities:</i>			
	<i>(1) contain pages and annexes as indexed, and;</i>			
	<i>(2) are in multiple procurement format, i.e. all trades are fully measured with minor budgetary allowances</i>			
	<i>Items in these bills of quantities are to be read and priced in conjunction with and the descriptions regarded as amplified by the Model Preambles for Trades, 2008 edition, as recommended and published by the Association of South African Quantity Surveyors and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained</i>			
	Fixed		Item	
	Value Related		Item	
	Time Related		Item	
45	Provisional bills of quantities (B2.2)			
	Yes			
	Fixed		Item	
	Value Related		Item	
	Time Related		Item	
	Carried Forward			R
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	Brought Forward			R
46	Availability of construction documentation (B2.3) <i>The minor budgetary allowances included in this document will be separately procured, based on multiple procurement of selected sub-contractors during the construction period</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
47	Interests of agents (B2.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
48	Priced documents (B2.5)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
49	Tender submission (B2.6) <i>Notwithstanding anything contained in this clause tenders shall be valid for a period of ninety (90) days from the closing date of tenders</i> <i>Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance C1.1"</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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	Brought Forward			R
	<u>The site (B3)</u>			
50	Defined works area (B3.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
51	Geotechnical investigation (B3.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
52	Inspection of the site (B3.3)			
	<i>Tenderers are instructed to familiarise themselves before submission of their tender with regard to the relevant local site conditions, site accessibility, the nature of operations required, availability of labour and any conditions pertaining thereto, together with conditions relating to unloading, carting and storage of materials, equipment and tools required for the works.</i>			
	<i>No claims for extras arising from the contractor having failed to comply with this clause will be entertained</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
53	Existing premises occupied (B3.4)			
	Fixed	Item		
	Carried Forward			R
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	Brought Forward			R
	Value Related	Item		
	Time Related	Item		
54	Previous work - dimensional accuracy (B3.5)			
	<i>Work executed under a previous contract and the extent thereof will be pointed out to the contractor by the principal agent on handing over of the site</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
55	Previous work - defects (B3.6)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
56	Services - known (B3.7)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
57	Services - unknown (B3.8)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
58	Protection of trees, etc (B3.9)			
	Fixed	Item		
	Carried Forward			R
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		Brought Forward		R
		Value Related	Item	
		Time Related	Item	
59	Articles of value (B3.10)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
60	Inspection of adjoining properties, etc (B3.11)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
	<u>Management of contract (B4)</u>			
61	Management of the works (B4.1)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
		Value Related	Item	
		Time Related	Item	
62	Progress meetings (B4.3)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
		Carried Forward		R
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	Brought Forward			R
63	Technical meetings (B4.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
64	Labour and plant records (B4.5)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>Samples, shop drawings and manufacturer's instructions (B5)</u>			
65	Samples of materials (B5.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
66	Workmanship samples (B5.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
67	Shop drawings (B5.3)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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	Brought Forward			R
68	Compliance with manufacturer's instructions (B5.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>Temporary works and plant (B6)</u>			
69	Deposits and fees (B6.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
70	Enclosure of the works (B6.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
71	Advertising (B6.3)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
72	Plant, equipment, sheds and offices (B6.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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		Brought Forward		R
73	Main notice board (B6.5)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
74	Subcontractors notice board (B6.6)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
	<u>Temporary services (B7)</u>			
75	Location (B7.1)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
76	Water (B7.2)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
77	Electricity (B7.3)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
		Carried Forward		R
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	Brought Forward			R
78	Telecommunication facilities (B7.4)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
79	Ablution facilities (B7.5)			
	Fixed	Item		
	Value Related	Item		
80	Time Related	Item		
	<u>Prime cost amounts (B8)</u>			
81	Responsibility for prime cost amounts (B8.1)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>Attendance on nominated and selected subcontractors (B9)</u>			
82	General attendance (B9.1)			
	The schedule rates providing for attendance on nominated subcontractors and other contractors , will be adjusted only if the scope of the work has changed			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
83	Special attendance (B9.2)			
	Fixed	Item		
	Carried Forward			R
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				R
	Brought Forward			
	Value Related	Item		
	Time Related	Item		
84	Commissioning - Fuel, water and electricity (B9.3)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>Financial aspects (B10)</u>			
85	Statutory taxes, duties and levies (B10.1)			
	<i>Provision is made in the summary of these bills of quantities for the inclusion of Value Added Tax (VAT)</i>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
86	Payment of preliminaries (B10.2)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
87	Adjustment of preliminaries (B10.3)			
	Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) working days of taking possession of the site " with "when submitting his priced bills of quantities "			
	Fixed	Item		
	Carried Forward			R
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		Brought Forward		R
		Value Related	Item	
		Time Related	Item	
88	Payment certificate cash flow (B10.4)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
	<u>General (B11)</u>			
89	Protection of works (B11.1)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
90	Protection/isolation of existing/sectionally occupied works(B11.2)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
91	Site security (B11.3)			
		Fixed	Item	
		Value Related	Item	
		Time Related	Item	
92	Notice before covering work (B11.4)			
		Fixed	Item	
		Carried Forward		R
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		Brought Forward		R
		Value Related	Item	
		Time Related	Item	
93	Disturbance (B11.5)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
94	Enviromental disturbance (B11.6)	Fixed	Item	
		Time Related	Item	
		Value Related	Item	
95	Works cleaning and clearing (B11.7)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
96	Vermin (B11.8)	Fixed	Item	
		Value Related	Item	
		Time Related	Item	
97	Overhand work (B11.9)	Fixed	Item	
		Value Related	Item	
		Carried Forward		R
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	Brought Forward			R
	Time Related	Item		
98	Instruction manuals and guarantees (B11.10)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
99	As built information (B11.11)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
100	Tenant installations (B11.12)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	<u>Schedule of variables (B12)</u>			
101	Pre-tender information (B12.1)			
	This schedule contains all variables referred to in this document and is divided into pretender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries .			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
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	Brought Forward		R
12.1.1 Provisional bills of quantities (B12.1.1) The quantities are provisional: Yes			
12.1.2 Availability of construction documentation (B12.1.2) Construction documentation is complete: Yes			
12.1.3 Interest of agents (B12.1.3) No			
12.1.4 Defined works area (B12.1.4) <i>The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent on handing over of the site</i>			
12.1.5 Geotechnical investigation (B12.1.5) The geotechnical report is available for viewing at the offices of the Principal Agent No			
12.1.6 Existing premises occupied (B12.1.6) [3.4] Specific requirements: The contractor shall execute the works with as little noise and disturbance as possible			
12.1.6 Existing premises occupied [3.4] Specific requirements: The contractor shall execute the works with as little noise and disturbance as possible			
	Carried Forward		R
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	Brought Forward		R
12.1.7 Previous work - Dimensional accuracy (B12.1.7) [3.5] Details: No additional details			
	No		
12.1.8 Previous work - defects			
[3.6] Details: No additional details			
12.1.9 Services - known (B12.1.9)			
Existing services and points of connection are shown on the site plan and/or will be pointed out on site by the principal agent			
12.1.10 Protection of trees			
[3.9] Specific requirements: No trees to be damaged or removed except those specifically designated in writing by the Architect			
12.1.11 Inspection of adjoining properties			
[3.11] Specific requirements: None			
12.1.12 Enclosure of the works			
[6.2] Specific requirements: Areas where work is taking place shall at all times be blocked off by appropriate means			
	Carried Forward		R
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	Brought Forward		R
<p>12.1.13 Offices</p> <p>[6.4.3] Specific requirements: The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.</p> <p>12.1.14 Main notice board</p> <p>[6.5] Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering.</p> <p>12.1.15 Subcontractors' notice board</p> <p>[6.6] A notice board is required (yes/no) NO Specific requirements:</p> <p>12.1.16 Water</p> <p>[7.2] Option A (by contractor) (yes/no) YES</p>			
	Carried Forward		R
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	Brought Forward	
12.1.17 Electricity		R
[7.3] Option A (by contractor) YES	(yes/no)	
12.1.18 Telecommunications		
[7.4] Telephone YES	(yes/no)	
YES Facsimile	(yes/no)	
YES E-mail	(yes/no)	
12.1.19 Ablution facilities		
[7.5] Option A (by contractor) YES	(yes/no)	
NO Option B (by employer)	(yes/no)	
12.1.20 Protection of existing/sectionally occupied works		
[11.2] Protection is required YES	(yes/no)	
	Carried Forward	R
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	Brought Forward			R
	<p>12.1.21 Special attendance</p> <p>The contractor must obtain information from all subcontractors at tender stage regarding special attendance that might be required and make allowance for each and every subcontract that requires special attendance</p> <p>[9.2] Subcontractor (1) Details:</p> <p>Subcontractor (2) Details:</p> <p>Subcontractor (3) Details:</p> <p>12.1.22 Protection of the works</p> <p>[11.1] Specific requirements: All work that requires protection during construction must be adequately protected up to practical completion by the contractor</p> <p>12.1.23 Disturbance</p> <p>[11.5] Specific requirements: The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent</p> <p>12.1.24 Environmental disturbance</p> <p>[11.6] Specific requirements: None</p>			
102	<p>Post-tender information (B12.2)</p> <p>All post-tender information for this section will be determined once tender is awarded</p> <p style="text-align: right;">Fixed</p>	Item		
	Carried Forward			R
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	Brought Forward			R
	Value Related		Item	
	Time Related		Item	
	12.2.1 Payment of preliminaries			
	[10.2] Option A (prorated) (yes/no)			
	YES			
	Option B (calculated) (yes/no)			
	NO			
	12.2.2 Adjustment of preliminaries			
	[10.3] Option A (three categories) (yes/no)			
	YES			
	Option B (detailed breakdown) (yes/no)			
	NO			
	12.2.3 Additional agreed preliminaries items			
	Details:			
	None			
103	Other post tender information (B12.3)			
	All post-tender information for this section will be determined once tender is awarded			
	Fixed		Item	
	Value Related		Item	
	Time Related		Item	
	<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
	Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item			
	Carried Forward			R
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	Brought Forward			R
104	<p>Clause C1 - Contract drawings</p> <p>The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed</p> <p>Should any part of the drawings not be clearly understood by the the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
		Item		
		Item		
		Item		
105	<p>Clause C2 - General Preambles</p> <p>The "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the trades is deemed to be included herein and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
		Item		
		Item		
		Item		
	Carried Forward			R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

	Brought Forward			R
106	<p>Clause C3 - Site instructions</p> <p>All site instructions issued on site shall be recorded in writing within seven (7) calendar days in site instruction book (A4 size and triplicate carbon format), which is to be provided and maintained by the contractor. The said site instruction book shall be kept on site at all times for the exclusive use of recording site instructions only</p> <p>Site instructions may be issued by the architect or any of the consultants only. Copies of the site instructions are to be submitted to the architect and quantity surveyor within seven (7) calendar days of such recording in the site instruction book</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
		Item		
		Item		
		Item		
107	<p>Clause C4 - Trade Names</p> <p>Wherever a trade name for any product has been described in the bills of quantities, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders</p> <p>If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
		Item		
		Item		
		Item		
	Carried Forward			R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

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	Brought Forward			R
108	Clause C5 - Overtime			
	Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorized and indicated in writing, prior to the execution thereof, that costs for such overtime will to be borne by the employer			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
109	Clause C6 - As-built drawings			
	The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
110	Clause C5 - Labour record			
	At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward			R
111	<p>Clause C6 - Plant record</p> <p>At the end of each calendar week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
		Item		
		Item		
		Item		
112	<p>Clause C7 - Cession of monies</p> <p>The contractor may cede his rights or claims to any monies due or to become due to him under this contract with written approval from the employer</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
		Item		
		Item		
		Item		
	Carried Forward			R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

Brought Forward	R
<p>Clause C8 - Occupational Health and Safety Act</p> <p>The contractor shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), as well as all new occupational health and safety acts requirement regarding the compliance of Covid 19</p> <p>It is required of the contractor to thoroughly study the latest Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document.</p> <p>The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.</p> <p>Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.</p> <p>PART A-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY - Construction health & safety documentation</p>	<p>R</p>
<p>Carried Forward</p> <p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>	<p>R</p>

	Brought Forward			R
113	Clause C8.1.1 - Prepare and compile H&S plan as per site specification Health and safety Specifications (Section C3, Scope of Work), OHS Act & Regulations			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
114	Clause C8.1.2 - Allow for the preparation and compilation of the site specific health and safety file, and a health and safety working file			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
115	Clause C8.1.3 - Appointment of a Registered Construction health and safety officer for the duration of the Contract as per Section 8(5) of the Construction Regulations 2014			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	PART B-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY - Personal Protective Clothing & Equipment			
116	Clause C8.2.1 - Foot protection (steel toe cap, gum boots, etc)			
	Fixed	Item		
	Value Related	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

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	Brought Forward			R
	Time Related	Item		
117	Clause C8.2.2 - Clothing (Overalls Depicting Contractors Company name/identification)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
118	Clause C8.2.3 - Glove (leather, PVC, Acid Resistant, etc) Item			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
119	Clause C8.2.4 - Head Protection: Hardhats with air vents Colour Coded - Supervisory (Red) Labour (Green)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
120	Clause C8.2.5 - Ear protection (earmuffs with 30% protective value) Item			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
121	Clause C8.2.6 - Eye Protection (Face Shield, Goggles, Spectacles, etc)			
	Fixed	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

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	Brought Forward			R
	Value Related	Item		
	Time Related	Item		
122	Clause C8.2.7 - Visibility (luminous high visibility safety vests/ jackets/ bibs/ etc)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
123	Clause C8.2.8 - Harness(double stranded safety harness with pylon hooks)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
124	Clause C8.2.9 - Portable ladders A-frame, extendable, length, material, etc.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
125	Clause C8.2.9 - Portable ladders A-frame, extendable, length, material, etc.			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward		R	
126	Clause C8.2.10 - Barricading/ Demarcation (Supply, Install & Removal) Demarcation perimeter (fence, shade netting, corrugated iron, shutter board, hard Barricade etc)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward			R
	PART C-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY - Occupational medical surveillance			
127	Clause C8.3.1 - Entry Medical Examinations by a SASOHN registered Occupational Health Nurse or a SASOM registered Occupational Medical Practitioner			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
128	Clause C8.3.2 - Exit Medical Examination			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
129	Clause C8.3.3 -Provision of a first aid kit			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
130	Clause C8.3.4 - Provision of a fire-fighting measures			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward		R	
	PART D-OHS ACT COMPLIANCE-IMPLEMENTATION OF THE HEALTH AND SAFETY Education, training, signage			
131	Clause C8.4.1 - Health and safety induction site access cards			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
132	Clause C8.4.2 - Basic First Aid training level one			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
133	Clause C8.4.3 - Health and Safety representative			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
134	Clause C8.4.4 - Construction (fire fighting. General information, prohibitory, mandatory, warning, hazchem, photo luminescent, etc)			
	Fixed	Item		
	Value Related	Item		
	Carried Forward		R	
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward			R
	Time Related	Item		
135	Clause C8.4.5 - Health and Safety information display board in site office (emergency evacuation flow diagram, emergency contact numbers, electrical, general, etc)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
136	Clause C8.4.6 -Health and safety charts (OHS Act, Basic Conditions of Employment Act)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	PART E - OHS AC COMPLIANCE - IMPLEMENTATION OF THE HEALTH AND SAFETY Covid-19 Compliance management			
137	Clause C8.5.1 - Covid - 19 related signage and posters			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward			R
138	Clause C8.5.2- 2 x 3ply cloth masks			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
139	Clause C8.5.2- hand sanitizers with 70% alcohol content			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
140	Clause C8.5.3 Decontamination agent / surface sanitizers			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
141	Clause C8.5.4 Surgical Gloves (for security and cleaning team)			
	Fixed	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward			R
	Value Related	Item		
	Time Related	Item		
142	Clause C8.5.5 Non-contact thermometers			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
143	Clause C8.5.6 Physical barriers to ensure social distancing (Compliance to Section 22 of the Covid-19 OHS Directive)			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
144	Clause C9 - Viewing of the school areas			
	The site is situated in a school area and the tenderer must arrange with the responsible school staff to obtain permission to enter the site for tendering purposes			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
	Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G			

	Brought Forward			R
145	<p>Clause C10 - Commencement of Works in School Areas</p> <p>As the works falls within a school area the contractor must give the responsible staff member notice before commencement of the works. Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractor's account</p>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
146	<p>Clause C11 - Entrance Permits to School Areas</p> <p>As the works falls within a school area the contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Principal, or chief security officer</p>			
	Fixed	Item		
	Value Related	Item		
	Time Related	Item		
	Carried Forward			R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

	Brought Forward		R	
147	<p>Clause C12 - Security Check of Personnel</p> <p>The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified</p> <p>In the event of the principal agent requesting the removal of a person or persons from the works for security reasons, the contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the works and the site and/or to any document or information relating to the works</p> <p style="text-align: right; margin-right: 100px;">Fixed Value Related Time Related</p>			
	Carried Forward		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

	Brought Forward			R
148	<p>Clause C13 - HIV/Aids Awareness</p> <p>It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the bills of quantities. Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained</p> <p>The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of Clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment</p>			
	Fixed		Item	
	Value Related		Item	
	Time Related		Item	
149	<p>Clause C13.1 - Awareness Champion</p> <p>Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification</p>			
	Fixed		Item	
	Value Related		Item	
	Time Related		Item	
	Carried Forward			R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

	Brought Forward			R
150	<p>Clause C13.2 - Awareness Workshop</p> <p>Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
	Item			
	Item			
	Item			
151	<p>Clause C13.3 - Posters, booklets, videos, etc.</p> <p>Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
	Item			
	Item			
	Item			
152	<p>Clause C13.4 - Access to Condoms</p> <p>Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification</p> <p style="text-align: right;">Fixed</p> <p style="text-align: right;">Value Related</p> <p style="text-align: right;">Time Related</p>			
	Item			
	Item			
	Item			
	Carried Forward			R
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

	Brought Forward		R	
153	<p>Clause C13.5- Monitoring</p> <p>Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification</p> <p style="text-align: right; margin-right: 100px;">Fixed</p> <p style="text-align: right; margin-right: 100px;">Value Related</p> <p style="text-align: right; margin-right: 100px;">Time Related</p>			
	Carried to Final Summary		R	
	<p>Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES CLUSTER G</p>			

Item No		Quantity	Rate	Amount
	<p><u>SECTION 2</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO 1</u></p> <p><u>DEMOLITIONS</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades as well as Engineering Specifications attached to these documents.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>User note</u></p> <p><u>Note:</u></p> <p>All usable material from the demolitions should be kept safety and handed over to the end user who shall sign for all material received.</p> <p><u>View site</u></p> <p><u>Demolishing and removing</u></p> <p>Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained</p>			
	Carried Forward		R	
	<p>Section No. 2 DEMOLITIONS OF 3 X 4 SEATER PIT TOILETS Bill No. 1 Demolitions CLUSTER G</p>			

	Brought Forward				R
	<p><u>Explosives</u></p> <p>No explosives whatsoever may be used for demolition purposes unless otherwise stated</p> <p><u>General</u></p> <p>Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent</p> <p>Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site</p> <p><u>Breaking up and removing</u></p>				
1	<p>Single storey existing 3 x 4 seater pit toilet block with mono pitched roof comprising toilet pit structure, concrete surface bed, one brick external walls, one brick and half brick internal walls and corrugated roof covering on prefabricated timber trusses including backfilling to toilet pit and compaction (hand over usable items to school)</p>	No	3		
	Carried to Final Summary				R
	<p>Section No. 2 DEMOLITIONS OF 3 X 4 SEATER PIT TOILETS Bill No. 1 Demolitions CLUSTER G</p>				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.3</u></p> <p><u>BILL NO. 1</u></p> <p><u>ALTERATIONS</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><u>REMOVAL OF EXISTING WORK:</u></p> <p>NATURE OF WORK: Tenderers are advised to visit the site and to satisfy themselves as to the nature and extent of the work to be done and provide in their tenders any items not specifically mentioned which they may deem necessary for the proper completion of the work.</p> <p>DIMENSIONS The Contractor is advised to take all dimensions affecting the existing buildings on the site, as he will be held solely responsible for all new work being of the correct size.</p> <p>PIPES, ETC Special care is to be taken not to interfere unnecessarily with any supply pipes or other piping that may be met with and found necessary to disconnect or cut, are to be effectively stopped off and any new connections that may be necessary are to be made with proper fittings and to the satisfaction of the Principal Agent to whom due notice must be given of any alterations to the existing services.</p> <p>PROTECTION In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the buildings. The Contractor must also protect all work not removed such as walls, floors, doors, windows or other joinery, loose and fixed fittings and electrical appliances, etc. from damage during the progress of the work and provide all necessary materials for doing so. The Contractor will be held solely responsible for any damage to persons or property and for the safety of the structure throughout the whole of this Contract and must</p>			
	Carried Forward		R	
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 1 Alterations CLUSTER G</p>			

Brought Forward				R
<p>make good at his own expense any damage that may occur.</p> <p>OLD USABLE MATERIALS from the alterations/demolitions are to become the property of the Client. Old materials for re-use are to be carefully removed, stored and protected from injury including making good any damaged or defective parts as required before fixing. Old reusable materials are to be handed over to the Client are to be carefully removed and neatly stacked on site where directed. The remainder of the old materials and all rubbish to be immediately carted away and the site left clean and unencumbered. The Contractor should allow for removing of rubble from site on daily basis, failing which the client might stop the construction until the site has been cleaned. None of the old stock bricks from the pulling down are to be re-used for any new work. Materials to be handed over to the Client should be kept safely and handed over to the School Governing Body or the school principal who shall sign for all materials received.</p> <p>MATERIALS, ETC The materials to be used and work to be done to be similar in all respects to that described for new work insofar as they concur. All work in making good is to be properly jointed to the existing.</p> <p>Unless otherwise stated, all usable material from the demolitions should be kept safely and handed over to the school governing body or the school principal who shall sign for all material received.</p> <p><u>TEMPORARY BARRICADES, SCREENS, ETC</u></p> <p><u>Temporary barricades, screens, roofs, etc including removal</u></p>				
1	Dust screen 1800mm high between construction sites and school facilities with suitable timber framing with 375 micron polyethylene sheeting stapled on one side, including corners, ends, etc		Item	
	Carried Forward			R
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 1 Alterations CLUSTER G</p>			

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Brought Forward			R
<u>REMOVAL OF EXISTING WORK</u>			
2	85mm thick apron	m2	210
3	85mm Thick surface bed	m2	634
<u>Breaking down and removing brickwork etc</u>			
4	Half brick wall in beamfilling	m2	204
<u>Take out and remove sundry ironmongery and replace with new</u>			
5	Writing board size 4800 x 1200mm high	No	9
<u>Taking out and removing doors, windows, etc from brickwork to be demolished</u>			
6	Timber single door 813 x 2032mm high	No	9
<u>Taking out and removing doors, windows, etc, including thresholds, sills, etc and building up openings in brick walls, including making good cement plaster on ? side(s) (making good paintwork elsewhere)</u>			
7	Door frame 813 x 2032m high overall from 230mm brick wall	No	1
<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
8	Corrugated iron roof covering including timber purlins	m2	826
9	Double pitched roof including bracing, gangboarding, purlins, bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for 3 classroom block 168m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	3
10	Ceilings including branderings and cornices	m2	779
11	75mm Coved cornice in patches	m	262
12	Fibre cement fascias, barge boards, etc.	m	286
Carried Forward			R
Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 1 Alterations CLUSTER G			

Brought Forward			R
<u>SERVICING OF DOORS AND WINDOWS</u>			
13	Replace window stays, handles and pegs	No	72
<u>MAKING GOOD OF FINISHES ETC</u>			
14	Walls in patches	m2	150
Carried Forward to Summary of Section No. 3			R
Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 1 Alterations CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.1</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p>			
	Carried Forward		R	
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G</p>			

	Brought Forward			R
	<u>Formwork</u>			
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use			
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described			
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described			
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"			
	<u>UNREINFORCED CONCRETE</u>			
	<u>20MPa/19mm concrete</u>			
1	Surface beds	m3	12	
2	Surface beds cast in panels on waterproofing.	m3	45	
3	Aprons cast in panels to falls	m3	12	
	Carried Forward			R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			

	Brought Forward				R
4	Ramps	m3	2		
5	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	110		
	<u>CONCRETE SUNDRIES</u>				
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
6	Surface beds, slabs, etc	m2	634		
7	Ramp to falls	m2	21		
8	Aprons to falls	m2	135		
	<u>FORMWORK</u>				
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
	<u>Rough formwork to sides</u>				
9	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	75		
	<u>REINFORCEMENT (PROVISIONAL)</u>				
	<u>Fabric reinforcement</u>				
10	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m ² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	634		
	Carried Forward to Summary of Section No. 3				R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 2</u></p> <p><u>MASONRY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Linings to concrete</u></p> <p>Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties</p> <p><u>Hollow walls etc</u></p> <p>Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p> <p><u>Reinforced brick lintels</u></p> <p>Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous</p>			
	Carried Forward		R	
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 3 Masonry CLUSTER G</p>			

	Brought Forward				
	<u>Face bricks</u>				R
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	<u>Pointing</u>				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	<u>SUPERSTRUCTURE</u>				
	<u>Brickwork of NFP bricks in class II mortar</u>				
1	Half brick walls in beamfilling.	m2	49		
	<u>Brickwork reinforcement</u>				
2	75mm Wide reinforcement built in horizontally	m	338		
	<u>SUPERSTRUCTURE</u>				
	<u>Brickwork of NFP bricks in class II mortar</u>				
3	L-shaped piers	m3	2		
	Carried Forward to Summary of Section No. 3				R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 3 Masonry CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.3</u></p> <p><u>ROOF COVERINGS ETC</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched</p> <p>Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use</p> <p><u>Sizes</u></p> <p>All items are measured net unless otherwise described</p> <p><u>Flashings, trimming plates, etc.</u></p> <p>Prices to include for all cutting and waste and relevant fixing material, unless otherwise described</p> <p>All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable</p> <p>All items are unless otherwise described measured net</p>			
	Carried Forward		R	
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 4 Roof Coveringss, etc CLUSTER G</p>			

Brought Forward				R
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>				
<u>0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions</u>				
1	Roof covering with pitch not exceeding 50 degrees	m2	824	
2	Ridge capping 550mm girth	m	87	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5				
Bill No. 4				
Roof Coveringss, etc				
CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.4</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Particle board:</u></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SABS 1300 Particle board: exterior and flooring type</p> <p>b) SABS 1301 Particle board: interior type</p> <p><u>Joinery:</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
	Carried Forward		R	
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 5 Capentry and Joinery CLUSTER G</p>			

Brought Forward	R	
<p><u>Decorative laminate finish:</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>PREFABRICATED ROOF TRUSSES</u></p> <p><u>Pre-fabricated metal connected timber roof trusses</u></p> <p>All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction</p> <p><u>Timber</u></p> <p>Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460</p> <p><u>Bolts</u></p> <p>Bolts shall be in accordance with BS 4190 or SABS 135</p> <p><u>Shear plates, tooth connectors and split rings</u></p> <p>Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"</p> <p><u>Washers</u></p> <p>Square or round washers of the following dimensions shall be used with all bolts:</p> <p>1 Bolts up to 8mm diameter: Washers shall be minimum 25mm wide of minimum 2,50mm thickness</p>	R	
Carried Forward	R	
<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 5 Capentry and Joinery CLUSTER G</p>		

	Brought Forward		R
<p>2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness</p> <p>3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness</p> <p><u>Metal connector plates</u></p> <p>Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel</p> <p>The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m² commercial class hot dipped galvanising as per SABS 934 before stamping</p> <p>All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report</p> <p><u>Truss construction</u></p> <p>Trusses shall be constructed in jigs specially designed to ensure the correct profile, overhangs and cambers</p> <p>Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint</p> <p><u>Truss design</u></p> <p>All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")</p> <p><u>Truss spacing</u></p> <p>The truss centres shall be less than or equal to that as described in this bill for each respective truss</p>			
	Carried Forward		R
<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 5 Carpentry and Joinery CLUSTER G</p>			

Brought Forward			R
<p><u>Truss pitch</u></p> <p>The truss pitch shall be as described in this bill for each respective truss type</p> <p><u>Truss loading</u></p> <p>Trusses shall be designed for a live load of 0,50kN/m² and dead load as specified under the sub-heading "Specific load specifications for roof trusses"</p> <p><u>Shop drawings, design and erection guarantee certificates</u></p> <p>It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified</p> <p><u>Dimensions</u></p> <p>All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences</p> <p><u>Erection</u></p> <p>All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer</p> <p><u>Design system</u></p> <p>The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system</p>			
Carried Forward			R
<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 5 Capentry and Joinery CLUSTER G</p>			

Brought Forward				R
<p>However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent</p> <p><u>Specific specifications for roof trusses</u></p> <p>Unless otherwise described, the following specifications will apply:</p> <p>1 All trusses to be with a 10° pitch</p> <p>2 The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres</p> <p><u>ROOFS</u></p> <p><u>The following in plate nailed timber roof truss construction</u></p> <p><u>The following is applicable in respect of roof trusses</u></p> <p>The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes</p> <p>Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)</p> <p><u>Allow for the preparation and submission of the following documents in respect of all buildings</u></p> <p>1 Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication</p> <p>2 Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc.</p>				
	Item			
	Item			
Carried Forward				R
<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 5 Capentry and Joinery CLUSTER G</p>				

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	Brought Forward			R
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item	
	<u>Sawn softwood</u>			
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for 3 classroom block 278m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	3	
	<u>Sawn softwood grade 4</u>			
5	38 x 114mm Wall plates	m	203	
	<u>Sundries</u>			
6	Two coats creosote on sawn timbers	m2	15	
	<u>EAVES, VERGES, ETC</u>			
	<u>"Everite FC77" pressed fibre-cement</u>			
7	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	284	
	<u>SKIRTINGS</u>			
	<u>Wrought meranti</u>			
8	19 x 76mm Skirting including 19mm quadrant bead nailed	m	158	
	<u>DOORS, ETC</u>			
	<u>Wrought meranti doors hung to steel frames</u>			
9	813 x 2032 x 44 mm thick heavy duty exterior quality horizontally slatted double sided saligna door fitted to comply with sabs 545 exterior grade or latest revision.	No	15	
	Carried Forward			R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 5 Capentry and Joinery CLUSTER G			

	Brought Forward			R
10	<p><u>Semi solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame</u></p> <p>813 x 2032 x 44 mm thick interior grade flush hollow core single timber door with 3 mm ply on both sides with 2 consolidated edges fitted to comply with sabs 545 in pressed steel frame. all painted to architect's colour schedule</p>	No	24	
Carried Forward to Summary of Section No. 3				
Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 5 Capentry and Joinery CLUSTER G				R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.5</u></p> <p><u>CEILING , ETC.</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions:</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <p><u>CEILING CONSTRUCTION, CORNICES, ETC.</u></p> <p><u>Insulation</u></p>			
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	m2	504	
	<u>Sawn softwood</u>			
2	38 x 114mm Ceiling joists (Provisional)	m	675	
	Carried Forward			R
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 6 Ceilings, Partitions and Access Flooring CLUSTER G</p>			

	Brought Forward				R
	<u>"Rhino" gypsum plasterboard cornices</u>				
3	75mm Coved cornices	m	158		
	<u>NAILED UP AND SCREWED UP CEILINGS</u>				
	<u>6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints</u>				
4	Ceilings including 38 x 38mm branderling at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	504		
5	Sloping ceilings including 38 x 38mm sawn softwood branderling at 450mm centres	m2	157		
6	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	9		
	Carried Forward to Summary of Section No. 3				R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 6 Ceilings, Partitions and Access Flooring CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.6</u></p> <p><u>IRONMONGERY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs</p> <p><u>Finishes to ironmongery</u></p> <p>Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded</p> <p><u>CATCHES,CABIN HOOKS, ETC</u></p> <p><u>"Solid"</u></p>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No 27		
	<p><u>LOCKS</u></p> <p style="text-align: right;">Carried Forward</p>		R	
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 7 Ironmongery CLUSTER G</p>			

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	Brought Forward				R
	<u>"Solid" or similar approved</u>				
2	"Code 630" padlock	No	15		
3	"Code 2252-76SC" three lever upright lockset	No	12		
4	"Code 460/313" Blesbok four lever lockset	No	15		
	<u>DOOR CLOSERS AND FLOOR SPRINGS</u>				
	<u>"Dorma" or similar approved</u>				
	<u>SUNDRIES</u>				
	<u>"Solid" or similar approved</u>				
5	Dorma "Code 255" door stop plugged	No	15		
6	Chromium plated toilet roll holder plugged to brickwork	No	12		
	<u>STEEL CUPBOARDS</u>				
	<u>Approved steel lockers with standard baked enamel finish</u>				
7	G10 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork	No	9		
	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>				
	<u>"Vitrex" or similar approved</u>				
8	Pinning boards 4000 x 1200mm high fixed to brickwork	No	6		
9	2000 x 1300 mm White Porcelain magnetic marker board	No	9		
	Carried Forward to Summary of Section No. 3				R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 7 Ironmongery CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.7</u></p> <p><u>METALWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as"holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p><u>Drawings</u></p> <p>Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Gates to external doors</u></p>			
1	Gate and frame 900 x 2100mm high complete (G1)	No	15	
	<p><u>PRESSED STEEL DOOR FRAMES</u></p>			
	Carried Forward			R
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 8 Metalwork CLUSTER G</p>			

	Brought Forward			R
	<u>Standard 1.6 mm in double rebate pressed mild steel door frame with wall matching profile in compliance with sabs 1129 or the latest version complete with lugs & fixtures to accommodate 813 x 2032mm door leaf suitable for half brick walls including 3 no. stainless steel medium duty butt hinges</u>			
2	Frame for door 813 x 2032mm high	No	4	
	<u>Standard 1.6 mm in double rebate pressed mild steel door frame with wall matching profile in compliance with sabs 1129 or the latest version complete with lugs & fixtures to accommodate 813 x 2032mm door leaf suitable for one brick walls including 3 no. stainless steel medium duty butt hinges</u>			
3	Frame for door 813 x 2032mm high	No	2	
	<u>STEEL WINDOWS, DOORS, ETC</u>			
	<u>"Nty" or similar approved steel residential windows with burglar bars to all sashes</u>			
4	500 x 600mm standard "standard type" galvanised mild steel window frame. manufactured to comply with sabs 727. frames to be factory primed with zinc phosphate primer to comply with sabs 1319	No	6	
5	1000 x 600mm standard "standard type" galvanised mild steel window frame. manufactured to comply with sabs 727. frames to be factory primed with zinc phosphate primer to comply with sabs 1319	No	8	
	Carried Forward to Summary of Section No. 3			R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 8 Metalwork CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 8</u></p> <p><u>PLASTERING</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>GRANOLITHIC</u></p> <p><u>Untinted granolithic on concrete</u></p> <p><u>SCREEDS</u></p> <p><u>Screeds on concrete</u></p>			
1	30mm Thick on floors	m2	363	
	Carried Forward to Summary of Section No. 3			R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 9 Plastering CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 9</u></p> <p><u>TILING</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding</p> <p><u>WALL TILING</u></p> <p><u>Glazed ceramic wall tiles (PC R110,00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere)</u></p>			
1	On walls	m2	122	
	<p><u>FLOOR TILING</u></p> <p><u>300 x 300 x 11,5mm Ceramic floor tiles (PC R120,00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u></p>			
2	On floors and landings	m2	504	
	Carried Forward			R
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 10 Tiling CLUSTER G</p>			

	Brought Forward				
3	Skirting formed of ceramic tile cut to 300 x 75mm high	m	474		R
Carried Forward to Summary of Section No. 3 Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 10 Tiling CLUSTER G					R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 10</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>SANITARY FITTINGS (PROVISIONAL)</u></p>			
1	450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts	No	6	
	Carried Forward			R
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 11 Plumbing and Drainage CLUSTER G</p>			

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	Brought Forward			R
2	600mm x 500mm inset washtrough, manufactured from grade 18/10 ss, stainless steel with radiused internal corners and provision for a 40mm diameter. outlet. fitted with approved 2no.plain extended chrome plated, complete with sliding wall flanges, un-slotted sink waste with back nut, plug with stirrup, chain a. sink installation height = 900mm affl. cut out size 535 x 425mm	No	6	
3	Cobra Watertech exposed urinal chrome plated Junior Flushmaster flushvalve (code: FJ6-000) with non-hold open feature, wall flange and 20mm "Ball-o-Stop" control inlet.	No	6	
	<u>WASTE UNIONS, ETC</u>			
4	32mm "301CP" Basin waste union	No	6	
	<u>TRAPS, ETC</u>			
	<u>"Marley"</u>			
5	32 x 50mm Deep seal "P" or "S" trap	No	12	
	<u>TAPS, VALVES, ETC</u>			
	<u>"Cobra Watertech or Similar and approved"</u>			
6	Cobra Ref 1111-15 CP "Stella" pillar tap	No	12	
7	" Cobra watertech" 15mm chrome plated pillar tap(Code: NM-502-21R) with red indice and elbow action lever	No	12	
	<u>Extra over class 0 copper pipes for capillary fittings</u>			
8	15mm Fittings	No	25	
9	22mm Fittings	No	21	
	<u>WATER SUPPLIES</u>			
	Carried Forward			R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 11 Plumbing and Drainage CLUSTER G			

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	Brought Forward				R
	<u>Class 0 copper pipes</u>				
10	15mm Pipes	m	66		
11	22mm Pipes	m	63		
12	28mm Pipes	m	78		
	<u>Extra over class 0 copper pipes for capillary fittings</u>				
13	15mm Fittings	No	15		
14	22mm Fittings	No	21		
15	28mm Fittings	No	28		
	<u>PVC gulley</u>				
16	110mm Gulley trap with O, P, Q or S outlet, plain gulley head and grating, jointed to 110mm PVC pipe, including excavated for, bedding on and encasing in concrete 15 MPa / 19mm, not exceeding 0.75m deep to invert	No	3		
	<u>Sundries</u>				
17	300 x 300 x 50mm Precast concrete inspection eye marker slab set in ground	No	3		
18	100mm Cast iron "ABC" cleaning eye	No	3		
19	Type 3B cast iron valve box	No	3		
	<u>TESTING</u>				
20	Provide all necessary apparatus, water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Project Manager, replace any defective work free of charge and leave perfect			Item	
	Carried Forward				R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 11 Plumbing and Drainage CLUSTER G				

		Brought Forward			
	<u>Enviroloo Unit</u>				R
21	Replace existing ventilation extraction unit including the outlet vent pipe	No	12		
	<u>Cleaning of existing enviroloo system</u>				
22	Clean and remove waste on the enviroloo bucket using approved chemicals without damaging the toilet system	No	12		
	Carried Forward to Summary of Section No. 3				R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 11 Plumbing and Drainage CLUSTER G				

Item No		Quantity	Rate	Amount
	<u>SECTION NO.4</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO. 11</u>			
	<u>GLAZING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>GLAZING TO STEEL WITH PUTTY</u>			
	<u>4mm Clear float glass</u>			
1	Panes exceeding 0,5m2 and not exceeding 2m2	m2	40	
	<u>4mm Rough cast glass</u>			
2	Panes exceeding 0,1m2 and not exceeding 0,5m2	m2	15	
	Carried Forward to Summary of Section No. 3			R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 12 Glazing CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.4</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 12</u></p> <p><u>PAINTWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>DESCRIPTIONS</u></p> <p>Descriptions of paintwork shall be deemed to include for all cutting in</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Plascon-Evans" specifications</p> <p style="text-align: center;">-----</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>ON SMOOTH CONCRETE</u></p> <p><u>Prepare surfaces and remove all loose material, and rinse. Apply flexible crackfiller to holes and cracks, one coat plaster primer and two coats Plascon Professional Copolymer Acrylic paint</u></p> <p><u>ON FIBRE-CEMENT</u></p>			
	Carried Forward		R	
	<p>Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 13 Paintwork CLUSTER G</p>			

Brought Forward				R
	<u>Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.</u>			
1	On fascias and barge boards	m2	54	
	<u>ON METAL</u>			
	<u>Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.</u>			
2	On door frames	m2	32	
3	On windows with burglar bars	m2	86	
4	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area)	m2	49	
	<u>ON WOOD</u>			
	Carried Forward			R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 13 Paintwork CLUSTER G			

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	Brought Forward			R
	<u>Apply 3no. clear eggshell varnish for interior to comply with sabs 887 type 01, thin down first coat with mineral turpentine as per manufacturer instructions, allowing each coat to dry overnight, apply wood preservative to exposed exterior wood to saturate the surface, with each coat soaking in before further coats, apply until no further soaking takes place</u>			
5	On doors	m2	21	
6	On skirtings, rails, cornices etc not exceeding 300 mm girth	m	158	
Carried Forward to Summary of Section No. 3				
Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 Bill No. 13 Paintwork CLUSTER G				R

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Section No. 3

RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 X 4 SEATER ENVIROLOO TOIL

SECTION SUMMARY - RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND

Bill No		Page No	Amount
1	Alterations	73	
2	Concrete, Formwork and Reinforcement	76	
3	Masonry	78	
4	Roof Coveringss, etc	80	
5	Capentry and Joinery	87	
6	Ceilings, Partitions and Access Flooring	89	
7	Ironmongery	91	
8	Metalwork	93	
9	Plastering	94	
10	Tiling	96	
11	Plumbing and Drainage	100	
12	Glazing	101	
13	Paintwork	104	
	Carried to Final Summary		R
	Section No. 3 RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 CLUSTER G		

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.1</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.1</u></p> <p><u>FOUNDATIONS</u></p> <p><u>EARTHWORKS</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"</p> <p><u>Excavation for working space in rock</u></p> <p>Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 1 Foundations CLUSTER G</p>			

	Brought Forward			R
	<u>Filling</u>			
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material			
	<u>Soil poisoning</u>			
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent			
	<u>SITE CLEARANCE, ETC.</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	562	
	<u>REMOVAL TREES, ETC.</u>			
	<u>Taking out and removing, grubbing up roots and filling holes.</u>			
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	4	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	34	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
4	Soft rock	m3	3	
	Carried Forward			R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 1 Foundations CLUSTER G			

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	Brought Forward				R
5	Hard rock	m3	2		
	<u>Extra over all excavations for carting away</u>				
6	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	34		
	<u>Risk of collapse of excavations</u>				
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	232		
	<u>Keeping excavations free of water</u>				
8	Keeping excavations free of all water other than subterranean water		Item		
	<u>Approved G6 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density</u>				
9	Under floors, steps, paving etc.	m3	45		
	<u>Compaction of surfaces</u>				
10	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	297		
	<u>Prescribed density tests on filling</u>				
	<u>SOIL POISONING</u>				
	<u>Soil insecticide</u>				
11	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	297		
12	To bottoms and sides of trenches etc	m2	287		
	Carried Forward				R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 1 Foundations CLUSTER G				

Brought Forward			R
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
<u>15MPa/19mm concrete</u>			
13	Blinding	m3	0.4
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
<u>25MPa/19mm concrete</u>			
14	Foundation beams	m3	34
15	Surface beds on waterproofing	m3	33
<u>REINFORCEMENT</u>			
<u>High tensile steel reinforcement to structural concrete work</u>			
16	10mm Diameter bars	t	2.24
17	12mm Diameter bars	t	0.38
18	20mm Diameter bars	t	1.51
<u>TEST CUBES</u>			
19	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	5.0
<u>BRICKWORK</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
20	Half brick walls	m2	45
Carried Forward			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 1 Foundations CLUSTER G			

				R
	Brought Forward			
	<u>BRICKWORK SUNDRIES</u>			
	<u>Joint forming material in movement joints:</u>			
	<u>Brickwork reinforcement</u>			
21	75mm wide reinforcement built in horizontally.	m	248	
	<u>FACE BRICKWORK</u>			
	<u>Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>			
22	Extra over brickwork for face brickwork	m2	21	
	<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>			
23	Coping on top of one brick wall	m	13	
	Carried Forward to Summary of Section No. 4			R
	Section No. 4			
	MEDIUM ADMIN BLOCK			
	Bill No. 1			
	Foundations			
	CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G</p>			

	Brought Forward			R
	<u>Formwork</u>			
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use			
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described			
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described			
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"			
	<u>UNREINFORCED CONCRETE</u>			
	<u>20MPa/19mm concrete</u>			
1	Aprons cast in panels to falls	m3	12	
2	Ramps	m3	1	
3	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	102	
	Carried Forward			R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			

Brought Forward				R
<u>REINFORCED CONCRETE</u>				
<u>15MPa/19mm concrete</u>				
4	150mm Concrete wall	m3	4	
<u>25MPa/19mm concrete</u>				
5	Slabs including beams and inverted beams	m3	6	
<u>CONCRETE SUNDRIES</u>				
<u>Finishing top surfaces of concrete smooth with a wood float</u>				
6	Aprons to falls	m2	122	
<u>FORMWORK</u>				
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
<u>Rough formwork to sides</u>				
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	89	
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>				
<u>Smooth formwork to soffits</u>				
8	Slabs	m2	6	
<u>Permanent formwork to soffits</u>				
<u>TEST CUBES</u>				
9	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	10.0	
Carried Forward				R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

Brought Forward			R
<u>MOVEMENT JOINTS ETC</u>			
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces</u>			
<u>Saw cut joints</u>			
10	Saw cut joints in top of concrete	m	5
<u>REINFORCEMENT</u>			
<u>High tensile steel reinforcement to structural concrete work</u>			
11	12mm Diameter	t	3.50
12	10mm Diameter bars	t	2.80
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
13	Type 245 fabric reinforcement in concrete slabs etc	m2	236
14	Type 311 fabric reinforcement in concrete walls etc	m2	27
Carried Forward to Summary of Section No. 4			R
Section No. 4			
MEDIUM ADMIN BLOCK			
Bill No. 2			
Concrete, Formwork and Reinforcement			
CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Linings to concrete</u></p> <p>Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties</p> <p><u>Hollow walls etc</u></p> <p>Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G</p>			

	Brought Forward			R
	<u>Reinforced brick lintels</u>			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	<u>Face bricks</u>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<u>Pointing</u>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<u>SUPERSTRUCTURE</u>			
	<u>Brickwork of NFP bricks in class II mortar</u>			
1	Piers	m3	3	
2	L-shaped piers	m3	0.5	
3	Half brick walls	m2	265	
4	Half brick walls in beamfilling.	m2	27	
5	One brick walls	m2	409	
	<u>Joint forming material in movement joints:</u>			
	<u>Brickwork reinforcement</u>			
6	75mm Wide reinforcement built in horizontally	m	853	
7	150mm Wide reinforcement built in horizontally	m	1,282	
	<u>Turning pieces</u>			
8	230mm Wide turning piece to lintels etc	m	69	
	Carried Forward			R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G			

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Brought Forward			R
<u>"Allied Concrete" prestressed fabricated lintels</u>			
9	110 x 75mm Lintels in lengths not exceeding 3m	m	15
<u>Galvanised wire ties etc</u>			
10	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	56
<u>FACE BRICKWORK</u>			
<u>Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>			
11	Extra over brickwork for face brickwork	m2	355
12	Extra over for facing in piers, including bonding and pointed with recesses joints on all exposed faces	m2	6
13	Extra over for facings in beamfilling for face brickwork	m2	75
<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>			
14	Extra over brickwork for brick-on-edge header course lintel	m	28
<u>Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>			
15	220mm Wide sill set sloping and slightly protecting outside	m	19
16	Coping on top of one brick wall	m	8
<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u>			
Carried Forward			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G			

	Brought Forward				
17	<p><u>Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.</u></p> <p>15mm x 150mm Wide sills set flat and slightly projecting</p>	m	45	R	
<p>Carried Forward to Summary of Section No. 4</p> <p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 3 Masonry CLUSTER G</p>					
				R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.4</u></p> <p><u>WATERPROOFING</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Waterproofing</u></p> <p>Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><u>DAMP-PROOFING OF WALLS AND FLOORS</u></p> <p><u>One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u></p>			
1	Under surface beds and trenches	m2	529	
	<p><u>JOINT SEALANTS ETC</u></p> <p><u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u></p>			
2	6 x 10mm In expansion joints including raking out of expansion joint filler as necessary	m	233	
	Carried Forward to Summary of Section No. 4			R
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 4 Waterproofing CLUSTER G</p>			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.5</u></p> <p><u>ROOF COVERINGS ETC</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched</p> <p>Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use</p> <p><u>Sizes</u></p> <p>All items are measured net unless otherwise described</p> <p><u>Flashings, trimming plates, etc.</u></p> <p>Prices to include for all cutting and waste and relevant fixing material, unless otherwise described</p> <p>All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable</p> <p>All items are unless otherwise described measured net</p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G</p>			

Brought Forward			R
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
<u>0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions</u>			
1	Roof covering with pitch not exceeding 50 degrees	m2	354
2	Ridge capping 550mm girth	m	38
3	Hip capping 550mm girth	m	42
4	Gable trim 550mm girth	m	24
<u>STEEL LOUVRES</u>			
<u>"NTY Steelworks" or similar approved</u>			
5	Triangular steel louvre size 3000x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	4
Carried Forward to Summary of Section No. 4			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Particle board:</u></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SABS 1300 Particle board: exterior and flooring type</p> <p>b) SABS 1301 Particle board: interior type</p> <p><u>Joinery:</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>			

Brought Forward			R
<p><u>Decorative laminate finish:</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>PREFABRICATED ROOF TRUSSES</u></p> <p><u>Pre-fabricated metal connected timber roof trusses</u></p> <p>All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction</p> <p><u>Timber</u></p> <p>Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460</p> <p><u>Bolts</u></p> <p>Bolts shall be in accordance with BS 4190 or SABS 135</p> <p><u>Shear plates, tooth connectors and split rings</u></p> <p>Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"</p> <p><u>Washers</u></p> <p>Square or round washers of the following dimensions shall be used with all bolts:</p> <p>1 Bolts up to 8mm diameter: Washers shall be minimum 25mm wide of minimum 2,50mm thickness</p>			
Carried Forward			R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Carpentry and Joinery CLUSTER G</p>			

	Brought Forward		R
<p>2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness</p> <p>3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness</p> <p><u>Metal connector plates</u></p> <p>Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel</p> <p>The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m² commercial class hot dipped galvanising as per SABS 934 before stamping</p> <p>All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report</p> <p><u>Truss construction</u></p> <p>Trusses shall be constructed in jigs specially designed to ensure the correct profile, overhangs and cambers</p> <p>Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint</p> <p><u>Truss design</u></p> <p>All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")</p> <p><u>Truss spacing</u></p> <p>The truss centres shall be less than or equal to that as described in this bill for each respective truss</p>			
	Carried Forward		R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Carpentry and Joinery CLUSTER G</p>			

	Brought Forward		R
<p><u>Truss pitch</u></p> <p>The truss pitch shall be as described in this bill for each respective truss type</p> <p><u>Truss loading</u></p> <p>Trusses shall be designed for a live load of 0,50kN/m² and dead load as specified under the sub-heading "Specific load specifications for roof trusses"</p> <p><u>Shop drawings, design and erection guarantee certificates</u></p> <p>It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified</p> <p><u>Dimensions</u></p> <p>All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences</p> <p><u>Erection</u></p> <p>All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer</p> <p><u>Design system</u></p> <p>The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system</p>			
	Carried Forward		R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Carpentry and Joinery CLUSTER G</p>			

Brought Forward				R
<p>However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent</p> <p><u>Specific specifications for roof trusses</u></p> <p>Unless otherwise described, the following specifications will apply:</p> <p>1 All trusses to be with a 10° pitch</p> <p>2 The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres</p> <p><u>ROOFS</u></p> <p><u>The following in plate nailed timber roof truss construction</u></p> <p><u>The following is applicable in respect of roof trusses</u></p> <p>The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes</p> <p>Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)</p> <p><u>Allow for the preparation and submission of the following documents in respect of all buildings</u></p> <p>1 Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication</p> <p>2 Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc.</p>				
	Item			
	Item			
Carried Forward				R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>				

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
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	Brought Forward			R
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item	
	<u>Sawn softwood</u>			
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for adminstration block approximately 355m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	1	
	<u>Sawn softwood grade 4</u>			
5	38 x 114mm Wall plates	m	88	
	<u>Sundries</u>			
6	Two coats creosote on sawn timbers	m2	24	
	<u>EAVES, VERGES, ETC</u>			
	<u>"Everite FC77" pressed fibre-cement</u>			
7	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	86	
	<u>SKIRTINGS</u>			
	<u>Wrought meranti</u>			
8	19 x 76mm Skirting including 19mm quadrant bead nailed	m	325	
	<u>DOORS, ETC</u>			
	Carried Forward			R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
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	Brought Forward		R	
	<u>Wrought meranti doors hung to steel frames</u>			
9	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	2	
	<u>Solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame</u>			
10	40mm Door 813 x 2032mm high	No	10	
	<u>FITTINGS</u>			
	<u>The following in four wrot Meranti slatted benches in waiting area:</u>			
11	32 x 69 mm Twice chamfered slat screwed from underside to steel supports with and including steel brackets.	m	44	
	<u>Joinery Fittings, etc.</u>			
12	Provide the amount of R250,000.00 (Two Hundred Fifty Thousand Rand) for the supply and installation of Joinery Fittings by Specialists		Item	250,000.00
13	Allow for giving every facility to Specialists as described		Item	
14	Allow for profit on above if required		Item	
	<u>Admin Furniture, etc.</u>			
15	Provide the amount of R250 000.00 (Two Hundred Fifty Thousand Rand) for the supply and installation of admin furniture by Specialists		Item	250,000.00
16	Allow for giving every facility to Specialists as described		Item	
17	Allow for profit on above if required		Item	
	Carried Forward to Summary of Section No. 4		R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 6 Capentry and Joinery CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.7</u></p> <p><u>CEILING , ETC.</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions:</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <p><u>CEILING CONSTRUCTION, CORNICES, ETC.</u></p> <p><u>Insulation</u></p>			
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	m2	297	
	<u>Sawn softwood</u>			
2	38 x 114mm Ceiling joists (Provisional)	m	85	
	Carried Forward			R
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G</p>			

	Brought Forward				R
	<u>"Rhino" gypsum plasterboard cornices</u>				
3	75mm Coved cornices	m	325		
	<u>NAILED UP AND SCREWED UP CEILINGS</u>				
	<u>6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints</u>				
4	Ceilings including 38 x 38mm branderling at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	297		
5	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	8		
	Carried Forward to Summary of Section No. 4				R
	Section No. 4				
	MEDIUM ADMIN BLOCK				
	Bill No. 7				
	Ceilings, Partitions and Access Flooring				
	CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.8</u></p> <p><u>IRONMONGERY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs</p> <p><u>Finishes to ironmongery</u></p> <p>Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded</p> <p><u>CATCHES,CABIN HOOKS, ETC</u></p> <p><u>"Solid"</u></p> <p><u>LOCKS</u></p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 8 Ironmongery CLUSTER G</p>			

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	Brought Forward				R
	<u>"Solid" or similar approved</u>				
1	"Code 630" padlock	No	2		
2	"Code 460/313" Blesbok four lever lockset	No	12		
	<u>DOOR CLOSERS AND FLOOR SPRINGS</u>				
	<u>"Dorma" or similar approved</u>				
3	Dorma TS91/EN3 slide channel door closer - Non hold open (Silver)	No	4		
4	Dorma DPH301C 150 x 19mm stainless steel "D" shaped straight bolt-through pull handle (St/Steel)	No	4		
	<u>SUNDRIES</u>				
	<u>"Solid" or similar approved</u>				
5	Dorma "Code 255" door stop plugged	No	16		
	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>				
	<u>"Vitrex" or similar approved</u>				
6	Pinning boards 2400 x 1200mm high fixed to brickwork	No	2		
7	Pinning boards 3000 x 1200mm high fixed to brickwork	No	4		
	<u>LETTERS, NAMEPLATES, ETC</u>				
	<u>"Union" or similar approved</u>				
8	150 x 150mm Stainless steel plate engraved with "female" sign (St/Steel)	No	1		
9	150 x 150mm Stainless steel plate engraved with "male" sign (St/Steel)	No	1		
	Carried Forward				R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 8 Ironmongery CLUSTER G				

Brought Forward			R
10	150 x 150mm Stainless steel plate engraved with electrical symbol (St/Steel)	No	2
11	150 x 150mm Stainless steel plate engraved with "running man RH" sign (St/Steel)	No	4
12	150 x 150mm Stainless steel plate engraved with a "Fire Hose Reel" sign (St/Steel)	No	1
13	150 x 150mm Stainless steel plate engraved with "Fire Extinguisher" sign (St/Steel)	No	6
14	150 x 150mm Stainless steel plate engraved with a "Arrow sign" sign (St/Steel)	No	11
15	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "KITCHEN"	No	1
16	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "STAFF ROOM"	No	1
17	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "STATIONERY STORE"	No	1
18	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "RECEPTION"	No	1
19	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "SICK ROOM"	No	1
20	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "PRINCIPAL"	No	1
21	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "PRINT ROOM"	No	1
22	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "VICE PRINCIPAL"	No	1
23	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "GENERAL OFFICE"	No	1
Carried Forward			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 8 Ironmongery CLUSTER G			

	Brought Forward				
24	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "WAITING AREA"	No	1		R
25	300 x 75 x 3mm Thick perspex plate with 40mm high engraved and paint letters to read "STRONG ROOM"	No	1		
<u>BATHROOM FITTINGS</u>					
<u>"Buchel" or similar approved</u>					
26	19mm Diameter chromium plated towel rail 600mm long including end brackets	No	2		
<u>"Kimberly-Clark" or similar approved</u>					
27	Kimberly-Clark® Professional MR2 Satin finish Stainless Steel toilet tissue dispenser (code: SA426130), overall size 130 x 135 x 256mm high, installed by a Kimberly Clark® installation team.	No	2		
28	Kimberly-Clark® Professional Reflex® MK2 Stainless Steel hand towel dispenser (code: SA426125), overall size 310 x 280 x 400mm high, installed by a Kimberly Clark® installation team.	No	2		
29	Kimberly-Clark® Professional Foam soap dispenser colour stainless steel, overall size 134 x 120 x 250mm high, installed by a Kimberly Clark® installation team.	No	2		
<u>"Nampak" or similar approved</u>					
30	Vandal resistant 2 roll holder complete fitments or similar approved	No	2		
<u>VERTICAL BLINDS</u>					
<u>"Luxaflex" or similar approved</u>					
31	Vertical blind system, not exceeding 2000mm high, consisting of 70mm wide vanes, powder coated aluminium headrail 44.8 x 26.5mm high, fitted with wheeled runners, connected by grey acetal spacer links with and including all necessary components to manufacturer's specifications	m	56		
Carried Forward to Summary of Section No. 4					R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 8 Ironmongery CLUSTER G					

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as"holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p><u>Drawings</u></p> <p>Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Gates to external doors</u></p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Double rebated frames suitable for one brick walls</u></p>			
1	<p>Frame for door 813 x 2032mm high and fixed fanlight 305mm high</p>	No 10		
	Carried Forward			R
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G</p>			

	Brought Forward			R
	<u>STEEL WINDOWS, DOORS, ETC</u>			
	<u>"Nty" or similar approved steel residential windows with burglar bars to all sashes</u>			
2	Window type SWE 418, size 1511 x 1264mm high	No	14	
3	Window type SWE 37S, size 1022 x 949mm high	No	3	
4	Window type SWE 31S, size 533 x 949mm high	No	5	
5	Window type SWE 47, size 2000 x 1264mm high	No	1	
	<u>STEEL STRONGROOM DOORS, VENTILATORS, ETC</u>			
	<u>"Gunnebo SA" or similar approved strongroom doors etc. suitable for 230mm walls fixed to brickwork or concrete</u>			
6	Mutual Austen Safes DS50/2/HD SABS Category 2 (Heavy Duty) left hand strongroom with 2 x 7-lever security keylock, overall size 850 x 1860mm high with and including powder coated finish	No	1	
7	Double ended strongroom ventilator	No	1	
	<u>STEEL ROLLER SHUTTERS ETC</u>			
	<u>"Wispeco" or similar approved roller shutters fixed to brickwork or concrete</u>			
	<u>ALUMINIUM WINDOWS, DOORS, ETC</u>			
	<u>Doors, windows, etc to be manufactured by an approved firm of specialists, to be of the best quality and design truly squared and unless otherwise described, prepared to receive galzing beads from the outside. All opening portions must fit perfectly on all faces and be so hung as to open and close freely without binding at any point. Wherever possible, all angles and intersections to be welded by electric welding, argon or arc welding. A sample window is to be submitted to the Architect for approval before the work is put in hand.</u>			
	Carried Forward			R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G			

Brought Forward		R
<p><u>The frames generally are to be suitable for brickwork, blockwork, or concrete reveals. They are to be fitted with fixing lugs of 2,8mm aluminium 13mm wide x 100mm long welded to framing, one near each corner and intermediately not more than 300mm apart to sides top and bottom. Where concrete reveals, etc the frames are to be countersunk holed for and fitted with the necessary screws at the centres as for the lugs above.</u></p> <p><u>Immediately after the windows, doors, etc, have been delivered on to site, they are to be thoroughly overhauled, and all necessary adjustment or repairs made before they are fixed in position. Where they come into contact with brickwork, blockwork, concrete, steel, etc, the framing is to be treated with bituminuos paint in an approved manner. The windows, doors, etc, are to be placed in their positions for building in and adjusted to open and close properly and are to be securely structured to prevent distortion whilst the brickwork and lintols, are being built.</u></p> <p><u>On completion of all other work the windows, doors, are to be adjusted as necessary and rendered in a complete and satisfactory state of repair and in working order.</u></p> <p><u>General. All rates for doors, windows, shopfronts etc , should include for all galzing as specified.</u></p> <p><u>Glazing beads: All door, etc to be fitted with galzing beads, unless otherwise described, mitred at angles and screwed on.</u></p> <p><u>Glass and Glazing: All functional glass must be delivered to site cut to size and ready for installation and must be classified to indicate grade and thickness. Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter an insurance letter will follow absolving the contractor of responsibilty.</u></p>		
Carried Forward		R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G</p>		

	Brought Forward		R
<p><u>AAAMSA guide</u></p> <p>All windows, doors, etc shall comply with and meet the minimum recommended performance requirements as set out in the General Specification for Architectural Aluminium and Glass Products (Third Edition) as published by the Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA)</p> <p>The following specifications are to be complied with:</p> <p>Aluminium alloy extrusion: BS 1474 Aluminium alloy sheets: SANS 903 Anodising: SANS 999 Neoprene performed seals and gaskets: SATM C542 Powder coat finishing: SANS 1274</p> <p><u>Finish</u></p> <p>The windows, doors, etc shall be natural anodised to a thickness of 25 micron and shall comply with SABS 999 and 1407</p> <p><u>Glass</u></p> <p>Glazing to be with patent rubber gaskets with glazing beads and comply with BS 952. Thickness of glass shall be in accordance with table 1 (Part N : Glazing). Safety glass shall comply with SABS 1263. The National Building Regulations shall be observed with regard to the specification of safety glass</p> <p><u>Design indemnity</u></p> <p>The contractor is to submit with his tender the "Form of Indemnity", annexed to this document, fully completed and signed</p> <p><u>Drawings</u></p> <p>Tenderers are referred to architect's drawings annexed to these bills of quantities for full details of windows, doors, etc</p>			
	Carried Forward		R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G</p>			

	Brought Forward			R
	<u>Pricing.</u>			
	All window prices should include aluminium louvres as shown			
	<u>General</u>			
	Workshop drawings to be approved by the architect before manufacture			
	<u>Ironmongery</u>			
	Prices for windows shall allow for two standard stainless steel side/top hung friction hinges and one bronze anodised aluminium handle per opening sash. Prices for doors shall allow for two pairs of standard flush bolts to double doors and one-and-a-half pairs of standard hinges per door leaf.			
	<u>Natural anodised series 340 aluminium windows, doors, etc including sub-frames, fixing, silicone sealant all round, ironmongery and glazed with 6,38mm clear laminated safetyglass unless otherwise stated</u>			
8	Purpose made aluminium viewing panel size 2000 x 1110mm high in two equal fixed panes	No	1	
9	Purpose made sliding viewing panel size 2000 x 1110mm high in three equal leafs (W6 & W5)	No	2	
10	Purpose made aluminium double door in two equal leafs size 1575 x 2100mm high overall (D1)	No	2	
	Carried Forward to Summary of Section No. 4			R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 9 Metalwork CLUSTER G			

Item No		Quantity	Rate	Amount
	<u>SECTION NO.5</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
1	25mm Thick on floors and landings	m2	68	
	<u>SCREEDS</u>			
	<u>Screeds on concrete</u>			
2	30mm Thick on floors	m2	229	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
3	On walls	m2	821	
4	On narrow widths	m2	35	
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>			
	Carried Forward		R	
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 10 Plastering CLUSTER G			

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		Brought Forward			R
5	<u>Brass</u> 3 x 32mm Flat section brass dividing strips between different floor finishes		m	13	
Carried Forward to Summary of Section No. 4					
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 10 Plastering CLUSTER G					R

Item No		Quantity	Rate	Amount
	<u>SECTION NO.5</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO.11</u>			
	<u>TILING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>WALL TILING</u>			
	<u>Glazed ceramic wall tiles (PC R110,00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere)</u>			
1	On walls	m2	122	
2	On narrow widths	m2	5	
	<u>FLOOR TILING</u>			
	Carried Forward			R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 11 Tiling CLUSTER G			

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	Brought Forward			R
	<u>300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u>			
3	On floors and landings	m2	354	
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	26	
 Carried Forward to Summary of Section No. 4				
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 11 Tiling CLUSTER G				R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.12</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>"Polylink" polypropylene pipes:</u></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>			

Brought Forward	R
<p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p> <p>Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same</p> <p>All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>Concrete pipes:</u></p> <p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings</p> <p><u>Vitrified clay pipes:</u></p> <p>Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid</p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pipes and fittings:</u></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p>	
Carried Forward	R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>	

Brought Forward	R
<p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>Copper pipes:</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Lead pipes and fittings</u></p> <p>All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel</p>	
Carried Forward	R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>	

	Brought Forward		R
<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Septic tanks</u></p> <p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions</p> <p><u>Exposed concrete surfaces</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling</p> <p>"Soft rock" and "hard rock" shall be as defined in "Earthworks"</p>			
	Carried Forward		R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>			

Brought Forward		R
<p><u>Laying, backfilling, bedding, etc. of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steelbasins, sinks, wash troughs, urinals, etc.</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>Steel sectional water tanks</u></p> <p>Tanks shall comply with SABS CKS 114</p> <p><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described</p>		
Carried Forward		R
<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>		

Brought Forward			R
Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc			
<u>RAINWATER DISPOSAL</u>			
<u>0,6mm Galvanised sheet iron with "Chromadek" finish on one side</u>			
1	100 x 125mm Eaves gutters with beaded front edge	m	66
2	Extra over eaves gutter for angle	No	8
3	Extra over eaves gutter for stopped end	No	2
4	Extra over eaves gutter for outlet for 100mm diameter pipe	No	8
5	100mm Diameter rainwater pipes	m	25
6	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	8
7	Extra over rainwater pipe for shoe	No	8
<u>STORMWATER CHANNELS</u>			
<u>15 MPa/20 mm concrete</u>			
<u>SOIL DRAINAGE</u>			
<u>uPVC pipes</u>			
8	110mm Pipes vertically or ramped to cleaning eye etc (no excavation)	m	6
9	110mm Pipes laid in and including trenches not exceeding 1m deep	m	150
Carried Forward			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

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Brought Forward			R
<u>Extra over uPVC pipes for fittings</u>			
10	110mm Access bend	No	4
11	110mm Access junction	No	3
12	110mm Bend	No	3
13	110mm Junction	No	3
14	110mm uPVC rodding eye cover in end of pipe	No	2
<u>Pre-cast concrete gulleys</u>			
15	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	1
<u>Concrete pipes:</u>			
<u>Inspection chambers (covers elsewhere)</u>			
16	Inspection chamber 450 x 600mm x exceeding 750mm and not exceeding 1000mm deep internally	No	1
<u>Covers, etc</u>			
17	450 x 600mm x 74kg Type 8A cast iron double seal manhole cover and frame	No	1
<u>Sundries</u>			
18	100mm Cast iron "ABC" cleaning eye	No	3
19	Precast concrete inspection eye marker slab set in ground	No	4
20	110mm Rodding eye	No	3
21	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	2
Carried Forward			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

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Brought Forward							
22	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3		2			R
<u>SANITARY FITTINGS</u>							
<u>"Vaal" or similar approved</u>							
23	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code : 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 8448Z0).	No		3			
24	Vaal Sanitaryware Hibiscus White vitreous china close coupled washdown suite comprising 90° outlet open rim pan (product code 772600) and matching 6/3 litre front dual flush cistern (product code 710539) including "PARKER AVANT" toilet seat	No		2			
<u>WASTE UNIONS ETC</u>							
<u>"Cobra Watertech" or similar approved</u>							
25	38mm "Cobra 316" unslotted waste and plug with chain	No		3			
<u>TRAPS ETC</u>							
<u>"Marley" or similar approved</u>							
26	40mm Flexi butyl rubber trap with reseal "P" trap	No		1			
<u>Chromium plated</u>							
27	32 x 40mm Bottle trap	No		3			
<u>CATCH PITS ETC</u>							
<u>The following in stormwater catchpits, junction boxes and inlet manholes</u>							
<u>TAPS, VALVES, ETC</u>							
Carried Forward							R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G							

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Brought Forward			R
<u>"Cobra Watertech" or similar approved</u>			
28	Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	1
29	Cobra Watertech 15mm chrome plated hi-waste elbow action pillartap with blue indicator for cold water (Code: 504-21B), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No	6
30	Cobra Watertech 15mm compression type angle regulating valve with 10mm bendable copper outlet tube service connection (Code: 232/350).	No	8
<u>SANITARY PLUMBING</u>			
<u>uPVC pipes</u>			
31	50mm Pipes	m	9
32	50mm Pipes laid in and including trenches not exceeding 1m deep	m	16
33	110mm Pipes	m	65
<u>Extra over uPVC pipes for fittings</u>			
34	50mm Bend	No	6
35	50mm Access bend	No	4
36	50mm BSP adaptor	No	2
37	50mm "GI Two-way" vent valve	No	1
38	110mm Bend	No	4
39	110mm Access bend	No	2
40	110mm Pan Connector	No	2
41	110mm "GI Two-way" vent valve	No	1
Carried Forward			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

	Brought Forward				R
	<u>Sundries</u>				
	<u>WATER SUPPLIES</u>				
	<u>Class 16 uPVC pressure pipes with solvent welded joints</u>				
42	32mm Pipes laid in and including trenches not exceeding 1m deep	m	30		
43	50mm Pipes laid in and including trenches not exceeding 1m deep	m	25		
	<u>Extra over class 16 uPVC pressure pipes for fittings with solvent welded joints</u>				
44	32mm Bend	No	3		
45	32mm Reducer	No	2		
46	32mm Tee	No	4		
47	50mm Bend	No	3		
48	50mm Tee	No	2		
49	35 x 50 x 35mm Junction	No	1		
	<u>Class 0 copper pipes</u>				
50	15mm Pipes	m	85		
51	22mm Pipes	m	65		
	<u>Extra over class 0 copper pipes for capillary fittings</u>				
52	15mm Fittings	No	44		
53	22mm Fittings	No	37		
	<u>Brass</u>				
54	15mm Fullway gate valve	No	1		
	Carried Forward				R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G				

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	Brought Forward				R
55	22mm Fullway gate valve	No	1		
	<u>Rainwater Tanks</u>				
56	Provide a sum of R125 000,00 (One Hundred and Twenty Five Thousand Rand) for the supply and installation of Rainwater tanks complete by Specialists		Item		125,000.00
57	Allow for giving every facility to Specialists as described		Item		
58	Allow for profit on above if required		Item		
	<u>Sundries</u>				
	<u>ELECTRIC WATER HEATERS</u>				
	<u>"Kwikot" or similar approved</u>				
59	Kwikot 150 Litre Slimline 600 Dual electric water heater (Code : ESG-100) complying with SABS 151-2002, overall size 990 x 480mm high, operating at 400kPa with temperature and pressure safety relief valve including 20mm female draincock with inlet compression. Geyser to be installed horizontally in roof space with 1160 x 560mm wide polyethylene drip tray with union and back nut connected to 20mm PVC overflow pipe taken out at eaves (Code : GSTP-1200) and 15mm pipe work including two 15mm vacuum breakers (Code : KHN4.150CX) installed on hot and cold water supply. Installation to include a 15mm 400kPa Kwikot Mono control and expansion relief valve (Code : KHN3.104), all in accordance with SANS 10254, connected to single phase electrical power supply with isolator 1m away from connection on geyser.	No	1		
	<u>FIRE APPLIANCES ETC</u>				
	Carried Forward				R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G				

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	Brought Forward			R
	<u>'Chubb' or similar approved</u>			
60	9kg Dry chemical powder fire extinguisher, including standard hard wood backing plugged and backing finished with one coat dark stain and two coats clear suede polyurethane varnish	No	6	
61	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	1	
Carried Forward to Summary of Section No. 4				R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G				

Item No		Quantity	Rate	Amount
	<u>SECTION NO.5</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO. 13</u>			
	<u>GLAZING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>GLAZING TO STEEL WITH PUTTY</u>			
	<u>4mm Clear float glass</u>			
1	Panes exceeding 0,1m2 and not exceeding 0,5m2	m2	3	
2	Panes exceeding 0,5m2 and not exceeding 2m2	m2	22	
	<u>4mm Rough cast glass</u>			
3	Panes exceeding 0,5m2 and not exceeding 2m2	m2	4	
	<u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u>			
	<u>4 mm Silvered float glass copper backed mirrors with 10 mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</u>			
4	Mirror 400 x 600mm high with four (4) screws	No	3	
	Carried Forward to Summary of Section No. 4			
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 13 Glazing CLUSTER G			R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.5</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>DESCRIPTIONS</u></p> <p>Descriptions of paintwork shall be deemed to include for all cutting in</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Plascon-Evans" specifications</p> <p style="text-align: center;">-----</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>ON FLOATED PLASTER</u></p>			
	Carried Forward		R	
	<p>Section No. 4 MEDIUM ADMIN BLOCK Bill No. 14 Paintwork CLUSTER G</p>			

Brought Forward			R
	<u>Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.</u>		
1	On internal walls	m2	699
<u>ON SMOOTH CONCRETE</u>			
<u>Prepare surfaces and remove all loose material, and rinse. Apply flexible crackfiller to holes and cracks, one coat plaster primer and two coats Plascon Professional Copolymer Acrylic paint</u>			
2	On ceilings, beams, walls and columns	m2	12
<u>ON FIBRE-CEMENT</u>			
<u>One coat primer, one coat universal undercoat and two coats super acrylic PVA paint</u>			
3	On ceilings and cornices	m2	285
<u>Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.</u>			
4	On fascias and barge boards	m2	53
Carried Forward			R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 14 Paintwork CLUSTER G			

Brought Forward			R
	<u>Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.</u>		
5	On window sills not exceeding 300 mm girth	m	99
	<u>ON METAL</u>		
	<u>Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.</u>		
6	On door frames	m2	23
7	On strong room doors	m2	5
8	On windows with burglar bars	m2	69
9	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area)	m2	28
10	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	99
	<u>ON WOOD</u>		
	Carried Forward		R
	Section No. 4 MEDIUM ADMIN BLOCK Bill No. 14 Paintwork CLUSTER G		

	Brought Forward			R
	<u>Plascon Velvaglo Satin to interior new wood (NW 571). Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.</u>			
11	On doors	m2	35	
	<u>Three coats matt varnish</u>			
12	On doors	m2	11	
13	On skirtings, rails, cornices etc not exceeding 300 mm girth	m	325	
Carried Forward to Summary of Section No. 4				R
Section No. 4 MEDIUM ADMIN BLOCK Bill No. 14 Paintwork CLUSTER G				

Section No. 4

MEDIUM ADMIN BLOCK

SECTION SUMMARY - MEDIUM ADMIN BLOCK

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	Section No. 4 MEDIUM ADMIN BLOCK CLUSTER G		

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.1</u></p> <p><u>FOUNDATIONS</u></p> <p><u>EARTHWORKS</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"</p> <p><u>Excavation for working space in rock</u></p> <p>Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
	Carried Forward		R	
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 1 Foundations CLUSTER G</p>			

	Brought Forward			R
	<u>Filling</u>			
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material			
	<u>Soil poisoning</u>			
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent			
	<u>SITE CLEARANCE, ETC.</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	360	
	<u>REMOVAL TREES, ETC.</u>			
	<u>Taking out and removing, grubbing up roots and filling holes.</u>			
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	4	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	52	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
4	Soft rock	m3	5	
	Carried Forward			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 1 Foundations CLUSTER G			

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
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Brought Forward			R
5	Hard rock	m3	3
	<u>Extra over all excavations for carting away</u>		
6	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	52
	<u>Risk of collapse of excavations</u>		
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	380
	<u>Keeping excavations free of water</u>		
8	Keeping excavations free of all water other than subterranean water		Item
	<u>Approved G6 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density</u>		
9	Under floors, steps, paving etc.	m3	54
	<u>Compaction of surfaces</u>		
10	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	363
	<u>Prescribed density tests on filling</u>		
11	"Modified AASHTO Density" test	No	10
	<u>SOIL POISONING</u>		
	<u>Soil insecticide</u>		
12	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	363
Carried Forward			R
Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 1 Foundations CLUSTER G			

	Brought Forward			R
13	To bottoms and sides of trenches etc	m2	478	
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>15MPa/19mm concrete</u>			
14	Blinding	m3	0.4	
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>25MPa/19mm concrete</u>			
15	Foundation beams	m3	52	
16	Surface beds on waterproofing	m3	40	
	<u>REINFORCEMENT</u>			
	<u>High tensile steel reinforcement to structural concrete work</u>			
17	10mm Diameter bars	t	0.95	
18	12mm Diameter bars	t	1.39	
19	20mm Diameter bars	t	2.05	
	<u>TEST CUBES</u>			
20	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	10.0	
	<u>BRICKWORK</u>			
	Carried Forward			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 1 Foundations CLUSTER G			

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Brought Forward			R
	<u>Brickwork of NFP bricks in class II mortar</u>		
21	Half brick walls	m2	54
	<u>BRICKWORK SUNDRIES</u>		
	<u>Joint forming material in movement joints:</u>		
22	12mm Fibre board built in vertically between brick skins.	m2	10
	<u>Brickwork reinforcement</u>		
23	75mm Wide reinforcement built in horizontally	m	159
	<u>FACE BRICKWORK</u>		
	<u>Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>		
24	Extra over brickwork for face brickwork	m2	25
	<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>		
25	Coping on top of one brick wall	m	29
	Carried Forward to Summary of Section No. 5		R
	Section No. 5		
	1 X 4 CLASSROOM BLOCK		
	Bill No. 1		
	Foundations		
	CLUSTER G		

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p>			
	Carried Forward		R	
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G</p>			

	Brought Forward			R
	<u>Formwork</u>			
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use			
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described			
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described			
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"			
	<u>UNREINFORCED CONCRETE</u>			
	<u>20MPa/19mm concrete</u>			
1	Aprons cast in panels to falls	m3	4	
2	Ramps	m3	3	
3	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	76	
	Carried Forward			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			

Brought Forward				R
<u>REINFORCED CONCRETE</u>				
<u>25MPa/19mm concrete</u>				
<u>CONCRETE SUNDRIES</u>				
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>				
4	Surface beds, slabs, etc	m2	360	
5	Ramp to falls	m2	8	
<u>Finishing top surfaces of concrete smooth with a wood float</u>				
6	Surface beds, slabs, etc	m2	52	
7	Aprons to falls	m2	91	
<u>FORMWORK</u>				
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
<u>Rough formwork to sides</u>				
8	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	30	
<u>TEST CUBES</u>				
9	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	10.0	
<u>MOVEMENT JOINTS ETC</u>				
Carried Forward				R
Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G				

Brought Forward			R
	<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces</u>		
10	15mm Joints exceeding 300mm high	m	10
	<u>Saw cut joints</u>		
11	Saw cut joints in top of concrete	m	62
	<u>REINFORCEMENT (PROVISIONAL)</u>		
	<u>Fabric reinforcement</u>		
12	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m ² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m ²	360
Carried Forward to Summary of Section No. 5			
Section No. 5			R
1 X 4 CLASSROOM BLOCK			
Bill No. 2			
Concrete, Formwork and Reinforcement			
CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Linings to concrete</u></p> <p>Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties</p> <p><u>Hollow walls etc</u></p> <p>Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p> <p><u>Reinforced brick lintels</u></p> <p>Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous</p>			
	Carried Forward		R	
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 3 Masonry CLUSTER G</p>			

Brought Forward			R
<u>Face bricks</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<u>SUPERSTRUCTURE</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
1	L-shaped piers	m3	2
2	One brick walls	m2	401
<u>Joint forming material in movement joints:</u>			
3	12mm Bitumen impregnated fibre board built in vertically between brick skins not exceeding 300mm wide.	m2	82
<u>Brickwork reinforcement</u>			
4	150mm Wide reinforcement built in horizontally	m	1,180
<u>Turning pieces</u>			
5	230mm Wide turning piece to lintels etc	m	32
<u>"Allied Concrete" prestressed fabricated lintels</u>			
6	110 x 75mm Lintels in lengths not exceeding 3m	m	3
<u>Galvanised wire ties etc</u>			
7	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	46
<u>FACE BRICKWORK</u>			
Carried Forward			R
Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 3 Masonry CLUSTER G			

Brought Forward			R
	<u>Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>		
8	Extra over brickwork for face brickwork	m2	354
9	Extra over for facing in piers, including bonding and pointed with recesses joints on all exposed faces	m2	12
10	Extra over for facings in beamfilling for face brickwork	m2	40
	<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>		
11	Extra over brickwork for brick-on-edge header course lintel	m	32
	<u>Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>		
12	220mm Wide sill set sloping and slightly protecting outside	m	32
13	Coping on top of one brick wall	m	29
	<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u>		
	<u>Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.</u>		
14	15mm x 150mm Wide sills set flat and slightly projecting	m	32
Carried Forward to Summary of Section No. 5			R
Section No. 5			
1 X 4 CLASSROOM BLOCK			
Bill No. 3			
Masonry			
CLUSTER G			

Item No		Quantity	Rate	Amount
	<u>BUILDING WORK</u>			
	<u>BILL NO.4</u>			
	<u>WATERPROOFING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Waterproofing</u>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
1	Under surface beds and trenches	m2	743	
	<u>JOINT SEALANTS ETC</u>			
	<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>			
2	6 x 10mm In expansion joints including raking out of expansion joint filler as necessary	m	62	
	Carried Forward to Summary of Section No. 5			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 4 Waterproofing CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.5</u></p> <p><u>ROOF COVERINGS ETC</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched</p> <p>Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use</p> <p><u>Sizes</u></p> <p>All items are measured net unless otherwise described</p> <p><u>Flashings, trimming plates, etc.</u></p> <p>Prices to include for all cutting and waste and relevant fixing material, unless otherwise described</p> <p>All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable</p> <p>All items are unless otherwise described measured net</p>			
	Carried Forward		R	
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G</p>			

	Brought Forward			R
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions</u>			
1	Roof covering with pitch not exceeding 50 degrees	m2	364	
2	Ridge capping 550mm girth	m	26	
3	Hip capping 550mm girth	m	32	
4	Gable trim 550mm girth	m	8	
	<u>STEEL LOUVRES</u>			
	<u>"NTY Steelworks" or similar approved</u>			
5	Triangular steel louvre size 3000x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	2	
	Carried Forward to Summary of Section No. 5			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Particle board:</u></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SABS 1300 Particle board: exterior and flooring type</p> <p>b) SABS 1301 Particle board: interior type</p> <p><u>Joinery:</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
	Carried Forward		R	
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>			

	Brought Forward		R
<p><u>Decorative laminate finish:</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>PREFABRICATED ROOF TRUSSES</u></p> <p><u>Pre-fabricated metal connected timber roof trusses</u></p> <p>All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction</p> <p><u>Timber</u></p> <p>Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460</p> <p><u>Bolts</u></p> <p>Bolts shall be in accordance with BS 4190 or SABS 135</p> <p><u>Shear plates, tooth connectors and split rings</u></p> <p>Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"</p> <p><u>Washers</u></p> <p>Square or round washers of the following dimensions shall be used with all bolts:</p> <p>1 Bolts up to 8mm diameter: Washers shall be minimum 25mm wide of minimum 2,50mm thickness</p>			
	Carried Forward		R
<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>			

	Brought Forward		R
<p>2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness</p> <p>3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness</p> <p><u>Metal connector plates</u></p> <p>Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel</p> <p>The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m² commercial class hot dipped galvanising as per SABS 934 before stamping</p> <p>All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report</p> <p><u>Truss construction</u></p> <p>Trusses shall be constructed in jigs specially designed to ensure the correct profile, overhangs and cambers</p> <p>Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint</p> <p><u>Truss design</u></p> <p>All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")</p> <p><u>Truss spacing</u></p> <p>The truss centres shall be less than or equal to that as described in this bill for each respective truss</p>			
	Carried Forward		R
<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 6 Carpentry and Joinery CLUSTER G</p>			

	Brought Forward		R
<p><u>Truss pitch</u></p> <p>The truss pitch shall be as described in this bill for each respective truss type</p> <p><u>Truss loading</u></p> <p>Trusses shall be designed for a live load of 0,50kN/m² and dead load as specified under the sub-heading "Specific load specifications for roof trusses"</p> <p><u>Shop drawings, design and erection guarantee certificates</u></p> <p>It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified</p> <p><u>Dimensions</u></p> <p>All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences</p> <p><u>Erection</u></p> <p>All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer</p> <p><u>Design system</u></p> <p>The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system</p>			
	Carried Forward		R
<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>			

Brought Forward				R
<p>However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent</p> <p><u>Specific specifications for roof trusses</u></p> <p>Unless otherwise described, the following specifications will apply:</p> <p>1 All trusses to be with a 10° pitch</p> <p>2 The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres</p> <p><u>ROOFS</u></p> <p><u>The following in plate nailed timber roof truss construction</u></p> <p><u>The following is applicable in respect of roof trusses</u></p> <p>The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes</p> <p>Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)</p> <p><u>Allow for the preparation and submission of the following documents in respect of all buildings</u></p> <p>1 Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication</p> <p>2 Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc.</p>				
	Item			
	Item			
Carried Forward				R
<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>				

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	Brought Forward			R
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item	
	<u>Sawn softwood</u>			
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for 4 classroom block 370m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	1	
	<u>Sawn softwood grade 4</u>			
5	38 x 114mm Wall plates	m	76	
6	50 x 220mm Timber Beam	m	26	
	<u>Sundries</u>			
7	Two coats creosote on sawn timbers	m2	23	
	<u>EAVES, VERGES, ETC</u>			
	<u>"Everite FC77" pressed fibre-cement</u>			
8	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	74	
	<u>SKIRTINGS</u>			
	<u>Wrought meranti</u>			
9	19 x 76mm Skirting including 19mm quadrant bead nailed	m	167	
	<u>DOORS, ETC</u>			
	Carried Forward			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 6 Carpentry and Joinery CLUSTER G			

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	Brought Forward			R
	<u>Wrought meranti doors hung to steel frames</u>			
10	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	8	
	<u>FITTINGS</u>			
	<u>Shelving to various stores</u>			
	<u>"Novalam" particle board with white melamine laminated finish on one side</u>			
11	16mm Tops, shelves, sides, divisions, etc	m2	189	
	<u>Classroom School Furnitures, etc</u>			
12	Provide the sum of R200 000,00 (Two Hundred Thousand Rands) for classroom school furniture by Specialists		Item	200,000.00
13	Allow for giving every facility to Specialists as described		Item	
14	Allow for profit on above if required		Item	
	Carried Forward to Summary of Section No. 5			R
	Section No. 5			
	1 X 4 CLASSROOM BLOCK			
	Bill No. 6			
	Capentry and Joinery			
	CLUSTER G			

Item No		Quantity	Rate	Amount
	<u>SECTION NO.6</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO.7</u>			
	<u>CEILING , ETC.</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions:</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere			
	<u>CEILING CONSTRUCTION, CORNICES, ETC.</u>			
	<u>Insulation</u>			
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	m2	286	
	<u>Sawn softwood</u>			
2	38 x 114mm Ceiling joists (Provisional)	m	521	
	Carried Forward			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G			

Brought Forward				R
	<u>"Rhino" gypsum plasterboard cornices</u>			
3	75mm Coved cornices	m	386	
<u>NAILED UP AND SCREWED UP CEILINGS</u>				
	<u>6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints</u>			
4	Ceilings including 38 x 38mm branderling at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	286	
5	Sloping ceilings including 38 x 38mm sawn softwood branderling at 450mm centres	m2	69	
6	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	4	
Carried Forward to Summary of Section No. 5				
Section No. 5				
1 X 4 CLASSROOM BLOCK				
Bill No. 7				
Ceilings, Partitions and Access Flooring				
CLUSTER G				
				R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.8</u></p> <p><u>IRONMONGERY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs</p> <p><u>Finishes to ironmongery</u></p> <p>Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded</p> <p><u>CATCHES,CABIN HOOKS, ETC</u></p> <p><u>"Solid"</u></p>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	4	
	<p><u>LOCKS</u></p>			
	Carried Forward			R
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 8 Ironmongery CLUSTER G</p>			

	Brought Forward			R
	<u>"Solid" or similar approved</u>			
2	"Code 630" padlock	No	4	
3	"Code 460/313" Blesbok four lever lockset	No	8	
	<u>DOOR CLOSERS AND FLOOR SPRINGS</u>			
	<u>"Dorma" or similar approved</u>			
	<u>SUNDRIES</u>			
	<u>"Solid" or similar approved</u>			
4	Dorma "Code 255" door stop plugged	No	8	
	<u>"Algoran Shelvit" with standard epoxy powder coated finish</u>			
5	Double slot wall bands plugged	m	58	
6	457mm Shelf bracket	No	158	
	<u>STEEL CUPBOARDS</u>			
	<u>Aproved steel lockers with standard baked enamel finish</u>			
7	G10 Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork	No	4	
	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>			
	<u>"Vitrex" or similar approved</u>			
8	Pinning boards 4000 x 1200mm high fixed to brickwork	No	8	
9	2000 x 1300 mm White Porcelain magnetic marker board	No	4	
	<u>LETTERS, NAMEPLATES, ETC</u>			
	Carried Forward			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 8 Ironmongery CLUSTER G			

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		Brought Forward		R
	<u>"Union" or similar approved</u>			
10	150 x 150mm Stainless steel plate engraved with a "Fire Hose Reel" sign (St/Steel)	No	1	
11	150 x 150mm Stainless steel plate engraved with "Fire Extinguisher" sign (St/Steel)	No	4	
12	150 x 150mm Stainless steel plate engraved with a "Arrow sign" sign (St/Steel)	No	4	
Carried Forward to Summary of Section No. 5				R
Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 8 Ironmongery CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as"holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p><u>Drawings</u></p> <p>Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc</p> <p><u>SUNDRY METALWORK</u></p> <p><u>The following in identical steel support columns</u></p>			
1	Bolts, complete with nuts and two washers each	kg	250	
2	76 x 76 x 3mm Tubular section columns 3050mm high	No	15	
	Carried Forward			R
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 9 Metalwork CLUSTER G</p>			

	Brought Forward			R
3	75 x 6mm Flat section fixing plate 120mm, twice holed for bolt and welded to top end of tubular section column (Provisional)	No	15	
4	200 x 200 x 5mm Thick Base plate, with four holes for bolts and welded to bottom end of tubular section column	No	15	
5	12mm Diameter x 75mm long sleeved masonry anchor	No	15	
<u>WELDED SCREENS, GATES, ETC</u>				
<u>Gates to external doors</u>				
6	Gate and frame 900 x 2100mm high complete (G1)	No	4	
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1,2mm Double rebated frames suitable for one brick walls</u>				
7	Frame for door 813 x 2032mm high	No	4	
<u>STEEL WINDOWS, DOORS, ETC</u>				
<u>"Nty" or similar approved steel residential windows with burglar bars to all sashes</u>				
8	NTY Standard School type window "Code 5/2" size 1143 x 1272mm high (W1)	No	36	
9	NTY Standard School type window "Code 5/2" size 1143 x 859mm high (W2)	No	4	
Carried Forward to Summary of Section No. 5				R
Section No. 5				
1 X 4 CLASSROOM BLOCK				
Bill No. 9				
Metalwork				
CLUSTER G				

Item No		Quantity	Rate	Amount
	<u>SECTION NO.6</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
1	25mm Thick on floors and landings	m2	68	
	<u>SCREEDS</u>			
	<u>Screeds on concrete</u>			
2	30mm Thick on floors	m2	255	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
3	On walls	m2	343	
4	On narrow widths	m2	19	
	Carried Forward to Summary of Section No. 5			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 10 Plastering CLUSTER G			

Item No		Quantity	Rate	Amount
	<u>SECTION NO.6</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO.11</u>			
	<u>TILING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>FLOOR TILING</u>			
	<u>300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u>			
1	On floors and landings	m2	297	
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	95	
	Carried Forward to Summary of Section No. 5			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 11 Tiling CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.12</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>RAINWATER DISPOSAL</u></p> <p><u>0,6mm Galvanised sheet iron with "Chromadek" finish on one side</u></p>			
1	100 x 125mm Eaves gutters with beaded front edge	m	88	
2	Extra over eaves gutter for angle	No	4	
	Carried Forward			R
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>			

	Brought Forward			R
3	Extra over eaves gutter for outlet for 100mm diameter pipe	No	4	
4	100mm Diameter rainwater pipes	m	16	
5	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	4	
6	Extra over rainwater pipe for shoe	No	4	
<u>STORMWATER CHANNELS</u>				
<u>15 MPa/20 mm concrete</u>				
7	Stormwater channel cast in panels	m3	38	
<u>FIRE APPLIANCES ETC</u>				
<u>'Chubb' or similar approved</u>				
8	9kg Dry chemical powder fire extinguisher, including standard hard wood backing plugged and backing finished with one coat dark stain and two coats clear suede polyurethane varnish	No	4	
9	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	1	
Carried Forward to Summary of Section No. 5				R
Section No. 5				
1 X 4 CLASSROOM BLOCK				
Bill No. 12				
Plumbing and Drainage				
CLUSTER G				

Item No		Quantity	Rate	Amount
	<u>SECTION NO.6</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO. 13</u>			
	<u>GLAZING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>GLAZING TO STEEL WITH PUTTY</u>			
	<u>4mm Clear float glass</u>			
1	Panes exceeding 0,5m2 and not exceeding 2m2	m2	43	
	<u>4mm Rough cast glass</u>			
2	Panes exceeding 0,1m2 and not exceeding 0,5m2	m2	22	
	Carried Forward to Summary of Section No. 5			R
	Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 13 Glazing CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.6</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>DESCRIPTIONS</u></p> <p>Descriptions of paintwork shall be deemed to include for all cutting in</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Plascon-Evans" specifications</p> <p style="text-align: center;">-----</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>ON FLOATED PLASTER</u></p>			
	Carried Forward		R	
	<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G</p>			

Brought Forward			R
1	<p><u>Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.</u></p> <p>On internal walls</p>	m2	343
<u>ON FIBRE-CEMENT</u>			
2	<p><u>One coat primer, one coat universal undercoat and two coats super acrylic PVA paint</u></p> <p>On ceilings and cornices</p>	m2	355
3	<p><u>Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.</u></p> <p>On fascias and barge boards</p>	m2	74
4	<p><u>Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.</u></p> <p>On window sills not exceeding 300 mm girth</p>	m	92
Carried Forward			R
<p>Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G</p>			

Brought Forward			R
<u>ON METAL</u>			
<u>Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.</u>			
5	On door frames	m2	10
6	On windows with burglar bars	m2	115
7	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area)	m2	15
8	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	88
<u>ON WOOD</u>			
<u>Plascon Velvaglo Satin to interior new wood (NW 571).Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.</u>			
9	On doors	m2	28
Carried Forward			R
Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G			

	Brought Forward			R
	<u>Three coats matt varnish</u>			
10	On doors	m2	28	
11	On skirtings, rails, cornices etc not exceeding 300 mm girth	m	167	
 Carried Forward to Summary of Section No. 5				
Section No. 5 1 X 4 CLASSROOM BLOCK Bill No. 14 Paintwork CLUSTER G				R

Section No. 5

1 X 4 CLASSROOM BLOCK

SECTION SUMMARY - 1 X 4 CLASSROOM BLOCK

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	Carried to Final Summary		R
	Section No. 5 1 X 4 CLASSROOM BLOCK CLUSTER G		

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.1</u></p> <p><u>FOUNDATIONS</u></p> <p><u>EARTHWORKS</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"</p> <p><u>Excavation for working space in rock</u></p> <p>Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be</p> <p><u>Carting away of excavated material</u></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site</p>			
	Carried Forward		R	
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G</p>			

	Brought Forward			R
	<u>Filling</u>			
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material			
	<u>Soil poisoning</u>			
	Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent			
	<u>SITE CLEARANCE, ETC.</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	59	
	<u>REMOVAL TREES, ETC.</u>			
	<u>Taking out and removing, grubbing up roots and filling holes.</u>			
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	2	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	6	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
4	Soft rock	m3	1	
	Carried Forward			R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G			

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Brought Forward			R
5	Hard rock	m3	0.3
	<u>Extra over all excavations for carting away</u>		
6	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	6
	<u>Risk of collapse of excavations</u>		
7	Sides of trench and hole excavations not exceeding 1,5m deep	m2	31
	<u>Keeping excavations free of water</u>		
8	Keeping excavations free of all water other than subterranean water		Item
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>		
9	Under floors, steps, paving, etc	m3	9
	<u>Approved G6 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density</u>		
10	Backfilling to trenches, holes, etc	m3	28
11	Under floors, steps, paving etc.	m3	9
	<u>Compaction of surfaces</u>		
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	59
	<u>Prescribed density tests on filling</u>		
13	"Modified AASHTO Density" test	No	5
Carried Forward			R
Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G			

	Brought Forward			R
	<u>SOIL POISONING</u>			
	<u>Soil insecticide</u>			
14	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	29	
15	To bottoms and sides of trenches etc	m2	42	
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>15MPa/19mm concrete</u>			
16	Blinding	m3	1	
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>25MPa/19mm concrete</u>			
17	Foundation beams	m3	6	
18	Surface beds on waterproofing	m3	3	
	<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
19	Surface beds, slabs, etc	m2	29	
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
	Carried Forward			R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 1 Foundations CLUSTER G			

	Brought Forward				R
	<u>Rough formwork to sides</u>				
20	Edges, risers, ends and reveals exceeding 300mm not exceeding 700mm high or wide	m	19		
	<u>REINFORCEMENT</u>				
	<u>High tensile steel reinforcement to structural concrete work</u>				
21	10mm Diameter bars	t	0.09		
22	12mm Diameter bars	t	0.07		
23	20mm Diameter bars	t	0.22		
	<u>TEST CUBES</u>				
24	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	10.0		
	<u>BRICKWORK</u>				
	<u>Brickwork of NFP bricks in class II mortar</u>				
25	Half brick walls	m2	10		
	<u>BRICKWORK SUNDRIES</u>				
	<u>Brickwork reinforcement</u>				
26	75mm Wide reinforcement built in horizontally	m	37		
	<u>FACE BRICKWORK</u>				
	<u>Face bricks (Purchase price of R 4 000,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>				
27	Extra over brickwork for face brickwork	m2	10		
	Carried Forward to Summary of Section No. 6				R
	Section No. 6				
	1 X 4 WATERBORNE TOILET BLOCK				
	Bill No. 1				
	Foundations				
	CLUSTER G				

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.2</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Cost of tests</u></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p>			
	Carried Forward		R	
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G</p>			

	Brought Forward			R
	<u>Formwork</u>			
	Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use			
	The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself			
	Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described			
	Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described			
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"			
	<u>UNREINFORCED CONCRETE</u>			
	<u>20MPa/19mm concrete</u>			
1	Aprons cast in panels to falls	m3	3	
2	Ramps	m3	1	
3	Extra over concrete for thickening size 150mm deep 200mm top and tapering to 100mm at bottom including all excavation to 100mm backfilling etc.	m	28	
	Carried Forward			R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
4	Surface beds, slabs, etc	m2	29
5	Ramp to falls	m2	3
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
6	Aprons to falls	m2	35
<u>FORMWORK</u>			
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Rough formwork to sides</u>			
7	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	31
<u>TEST CUBES</u>			
8	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	5.0
<u>MOVEMENT JOINTS ETC</u>			
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces</u>			
<u>Saw cut joints</u>			
9	Saw cut joints in top of concrete	m	14
<u>REINFORCEMENT</u>			
Carried Forward			R
Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			

	Brought Forward			R
	<u>REINFORCEMENT (PROVISIONAL)</u>			
	<u>Fabric reinforcement</u>			
10	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m ² with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	22	
	Carried Forward to Summary of Section No. 6			
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 2 Concrete, Formwork and Reinforcement CLUSTER G			R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 3</u></p> <p><u>MASONRY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><u>Linings to concrete</u></p> <p>Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties</p> <p><u>Hollow walls etc</u></p> <p>Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole</p> <p><u>Reinforced brick lintels</u></p> <p>Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous</p>			
	Carried Forward		R	
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 3 Masonry CLUSTER G</p>			

Brought Forward			R
<u>Face bricks</u>			
Bricks shall be ordered timeously to obtain uniformity in size and colour			
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<u>SUPERSTRUCTURE</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
1	Half brick walls	m2	46
2	One brick walls	m2	77
<u>Brickwork reinforcement</u>			
3	75mm Wide reinforcement built in horizontally	m	134
4	150mm Wide reinforcement built in horizontally	m	226
<u>Turning pieces</u>			
5	230mm Wide turning piece to lintels etc	m	2
<u>"Allied Concrete" prestressed fabricated lintels</u>			
6	110 x 75mm Lintels in lengths not exceeding 3m	m	2
<u>Galvanised wire ties etc</u>			
7	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	12
<u>FACE BRICKWORK</u>			
Carried Forward			R
Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 3 Masonry CLUSTER G			

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	Brought Forward			R
	<u>Face bricks (Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>			
8	Extra over brickwork for face brickwork	m2	77	
9	Extra over for facings in beamfilling for face brickwork	m2	7	
	<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R4 700,00 / 1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>			
10	Extra over brickwork for brick-on-edge header course lintel	m	2	
	<u>Brick-on-edge header course copings, sills, etc of face bricks(Purchase price of R4 700,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>			
11	220mm Wide sill set sloping and slightly protecting outside	m	2	
12	Coping on top of one brick wall	m	4	
	<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u>			
	<u>Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.</u>			
13	15mm x 150mm Wide sills set flat and slightly projecting	m	2	
	Carried Forward to Summary of Section No. 6			R
	Section No. 6			
	1 X 4 WATERBORNE TOILET BLOCK			
	Bill No. 3			
	Masonry			
	CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.4</u></p> <p><u>WATERPROOFING</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Waterproofing</u></p> <p>Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee by an approved applicator. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><u>DAMP-PROOFING OF WALLS AND FLOORS</u></p> <p><u>One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course</u></p>			
1	In walls	m2	7	
	<p><u>One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u></p>			
2	Under surface beds	m2	29	
	Carried Forward to Summary of Section No. 6			R
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 4 Waterproofing CLUSTER G</p>			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.5</u></p> <p><u>ROOF COVERINGS ETC</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>General</u></p> <p>All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched</p> <p>Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use</p> <p><u>Sizes</u></p> <p>All items are measured net unless otherwise described</p> <p><u>Flashings, trimming plates, etc.</u></p> <p>Prices to include for all cutting and waste and relevant fixing material, unless otherwise described</p> <p>All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable</p> <p>All items are unless otherwise described measured net</p>			
	Carried Forward		R	
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G</p>			

	Brought Forward			R
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,5mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to steel purlins or rails and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions</u>			
1	Roof covering with pitch not exceeding 50 degrees	m2	56	
	<u>STEEL LOUVRES</u>			
	<u>"NTY Steelworks" or similar approved</u>			
2	Triangular steel louvre size 1500x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc	No	2	
	Carried Forward to Summary of Section No. 6			R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 5 Roof Coveringss, etc CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.6</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Particle board:</u></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SABS 1300 Particle board: exterior and flooring type</p> <p>b) SABS 1301 Particle board: interior type</p> <p><u>Joinery:</u></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p>			
	Carried Forward		R	
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>			

	Brought Forward		R
<p><u>Decorative laminate finish:</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><u>PREFABRICATED ROOF TRUSSES</u></p> <p><u>Pre-fabricated metal connected timber roof trusses</u></p> <p>All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction</p> <p><u>Timber</u></p> <p>Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460</p> <p><u>Bolts</u></p> <p>Bolts shall be in accordance with BS 4190 or SABS 135</p> <p><u>Shear plates, tooth connectors and split rings</u></p> <p>Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses"</p> <p><u>Washers</u></p> <p>Square or round washers of the following dimensions shall be used with all bolts:</p> <p>1 Bolts up to 8mm diameter: Washers shall be minimum 25mm wide of minimum 2,50mm thickness</p>			
	Carried Forward		R
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>			

	Brought Forward		R
<p>2 Bolts up to 12mm diameter: Washers shall be minimum 36mm wide of minimum 4,00mm thickness</p> <p>3 Bolts up to 20mm diameter: Washers shall be minimum 60mm wide of minimum 5,00mm thickness</p> <p><u>Metal connector plates</u></p> <p>Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel</p> <p>The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m² commercial class hot dipped galvanising as per SABS 934 before stamping</p> <p>All connector plates shall have been tested by the CSIR and be of a size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR report</p> <p><u>Truss construction</u></p> <p>Trusses shall be constructed in jigs specially designed to ensure the correct profile, overhangs and cambers</p> <p>Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint</p> <p><u>Truss design</u></p> <p>All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")</p> <p><u>Truss spacing</u></p> <p>The truss centres shall be less than or equal to that as described in this bill for each respective truss</p>			
	Carried Forward		R
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 6 Carpentry and Joinery CLUSTER G</p>			

Brought Forward			R	
<p><u>Truss pitch</u></p> <p>The truss pitch shall be as described in this bill for each respective truss type</p> <p><u>Truss loading</u></p> <p>Trusses shall be designed for a live load of 0,50kN/m² and dead load as specified under the sub-heading "Specific load specifications for roof trusses"</p> <p><u>Shop drawings, design and erection guarantee certificates</u></p> <p>It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified</p> <p><u>Dimensions</u></p> <p>All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences</p> <p><u>Erection</u></p> <p>All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer</p> <p><u>Design system</u></p> <p>The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system</p>				
Carried Forward			R	
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>				

Brought Forward				R
<p>However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent</p> <p><u>Specific specifications for roof trusses</u></p> <p>Unless otherwise described, the following specifications will apply:</p> <p>1 All trusses to be with a 10° pitch</p> <p>2 The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres</p> <p><u>ROOFS</u></p> <p><u>The following in plate nailed timber roof truss construction</u></p> <p><u>The following is applicable in respect of roof trusses</u></p> <p>The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes</p> <p>Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)</p> <p><u>Allow for the preparation and submission of the following documents in respect of all buildings</u></p> <p>1 Detailed shop drawings indicating truss sizes, truss positions, bracings, details, etc. to be submitted for approval prior the commencement of any fabrication</p> <p>2 Design certificate indicating the licensed programme used, SANS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc.</p>				
	Item			
	Item			
Carried Forward				R
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 6 Capentry and Joinery CLUSTER G</p>				

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	Brought Forward			R
3	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Principal Agent		Item	
	<u>Sawn softwood</u>			
4	Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves purlins, hipped end, rafters etc. for waterborne toilet block approximately 22m2 on plan (Refer to architect's drawings attached to these bills of quantities)	No	1	
	<u>Sawn softwood grade 4</u>			
5	38 x 114mm Wall plates	m	28	
	<u>Sundries</u>			
6	Two coats creosote on sawn timbers	m2	6	
	<u>EAVES, VERGES, ETC</u>			
	<u>"Everite FC77" pressed fibre-cement</u>			
7	15 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	28	
	<u>DOORS, ETC</u>			
	<u>Wrought meranti doors hung to steel frames</u>			
8	44mm Framed and ledged batten door 813 x 2032mm high of 44 x 100mm top rail and stiles, 22 x 100mm middle and bottom rails, covered on both sides with 6mm plywood with veneer (D3)	No	2	
	Carried Forward to Summary of Section No. 6			R
	Section No. 6			
	1 X 4 WATERBORNE TOILET BLOCK			
	Bill No. 6			
	Capentry and Joinery			
	CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.7</u></p> <p><u>CEILING , ETC.</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions:</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <p><u>CEILING CONSTRUCTION, CORNICES, ETC.</u></p> <p><u>Insulation</u></p>			
1	100mm glass fibre insulation blanket to manufacturer's specification, laid on ceiling.	m2	29	
	<u>Sawn softwood</u>			
2	38 x 114mm Ceiling joists (Provisional)	m	7	
	Carried Forward			R
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 7 Ceilings, Partitions and Access Flooring CLUSTER G</p>			

	Brought Forward			R
	<u>"Rhino" gypsum plasterboard cornices</u>			
3	75mm Coved cornices	m	28	
	<u>NAILED UP AND SCREWED UP CEILINGS</u>			
	<u>6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints</u>			
4	Ceilings including 38 x 38mm branderling at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	29	
5	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	1	
	Carried Forward to Summary of Section No. 6			R
	Section No. 6			
	1 X 4 WATERBORNE TOILET BLOCK			
	Bill No. 7			
	Ceilings, Partitions and Access Flooring			
	CLUSTER G			

Item No	Quantity	Rate	Amount
<u>SECTION NO.7</u>			
<u>BUILDING WORK</u>			
<u>BILL NO.8</u>			
<u>IRONMONGERY</u>			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Descriptions</u>			
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs			
<u>Finishes to ironmongery</u>			
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded			
<u>CATCHES,CABIN HOOKS, ETC</u>			
<u>"Solid"</u>			
1	100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	6
<u>LOCKS</u>			
Carried Forward			R
Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 8 Ironmongery CLUSTER G			

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	Brought Forward			R
	<u>"Solid" or similar approved</u>			
2	"Code 630" padlock	No	2	
3	"Code 460/313" Blesbok four lever lockset	No	2	
4	293/E41 WC indicator bolt with keep fixed to metal	No	4	
	<u>LETTERS, NAMEPLATES, ETC</u>			
	<u>"Union" or similar approved</u>			
5	150 x 150mm Stainless steel plate engraved with "female" sign (St/Steel)	No	2	
6	150 x 150mm Stainless steel plate engraved with "male" sign (St/Steel)	No	1	
	<u>BATHROOM FITTINGS</u>			
	<u>"Nampak" or similar approved</u>			
7	Vandal resistant 2 roll holder complete fittings or similar approved	No	4	
	Carried Forward to Summary of Section No. 6			R
	Section No. 6			
	1 X 4 WATERBORNE TOILET BLOCK			
	Bill No. 8			
	Ironmongery			
	CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 9</u></p> <p><u>METALWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as"holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p><u>Drawings</u></p> <p>Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Gates to external doors</u></p>			
1	Gate and frame 900 x 2100mm high complete (G1)	No	2	
	<p><u>PRESSED STEEL DOOR FRAMES</u></p>			
	Carried Forward			R
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 9 Metalwork CLUSTER G</p>			

Item No		Quantity	Rate	Amount
	<u>SECTION NO.7</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO. 10</u>			
	<u>PLASTERING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic on concrete</u>			
	<u>SCREEDS</u>			
	<u>Screeds on concrete</u>			
1	30mm Thick on floors	m2	29	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
2	On walls	m2	210	
	Carried Forward to Summary of Section No. 6			
	Section No. 6			
	1 X 4 WATERBORNE TOILET BLOCK			
	Bill No. 10			
	Plastering			
	CLUSTER G			
				R

Item No		Quantity	Rate	Amount
	<u>SECTION NO.7</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO.11</u>			
	<u>TILING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Descriptions</u>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>FLOOR TILING</u>			
	<u>300 x 300 x 11,5mm Ceramic floor tiles (PC R120.00/m2 VAT excl.) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound</u>			
1	On floors and landings	m2	29	
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	38	
	Carried Forward to Summary of Section No. 6			R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 11 Tiling CLUSTER G			

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO.12</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p style="text-align: center;">-----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>"Polylink" polypropylene pipes:</u></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>			R

Brought Forward	R
<p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p> <p>Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same</p> <p>All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>Concrete pipes:</u></p> <p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings</p> <p><u>Vitrified clay pipes:</u></p> <p>Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid</p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pipes and fittings:</u></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p>	
Carried Forward	R
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>	

Brought Forward	R
<p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints</p> <p><u>Copper pipes:</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Lead pipes and fittings</u></p> <p>All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel</p>	
<p>Carried Forward</p>	<p>R</p>
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>	

Brought Forward		R
<p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Wire gratings</u></p> <p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings</p> <p><u>Septic tanks</u></p> <p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions</p> <p><u>Exposed concrete surfaces</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling</p> <p>"Soft rock" and "hard rock" shall be as defined in "Earthworks"</p>		
Carried Forward		R
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>		

Brought Forward		R
<p><u>Laying, backfilling, bedding, etc. of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steelbasins, sinks, wash troughs, urinals, etc.</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>Steel sectional water tanks</u></p> <p>Tanks shall comply with SABS CKS 114</p> <p><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described</p>		
Carried Forward		R
<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>		

	Brought Forward				R
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
	<u>RAINWATER DISPOSAL</u>				
	<u>0,6mm Galvanised sheet iron with "Chromadek" finish on one side</u>				
1	100 x 125mm Eaves gutters with beaded front edge	m	28		
2	Extra over eaves gutter for angle	No	4		
3	Extra over eaves gutter for stopped end	No	2		
4	Extra over eaves gutter for outlet for 100mm diameter pipe	No	4		
5	100mm Diameter rainwater pipes	m	16		
6	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	4		
7	Extra over rainwater pipe for shoe	No	4		
	<u>SOIL DRAINAGE</u>				
	<u>uPVC pipes</u>				
8	110mm Pipes vertically or ramped to cleaning eye etc (no excavation)	m	10		
9	110mm Pipes laid in and including trenches not exceeding 1m deep	m	70		
	<u>Extra over uPVC pipes for fittings</u>				
10	110mm Access bend	No	4		
11	110mm Access junction	No	4		
	Carried Forward				R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G				

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
 MAKGOPELE PRIMARY SCHOOL
 LDPWRI-B20305

Brought Forward			R
12	110mm Bend	No	8
13	110mm Junction	No	2
14	110mm uPVC rodding eye cover in end of pipe	No	4
<u>Sundries</u>			
15	100mm Cast iron "ABC" cleaning eye	No	1
16	Precast concrete inspection eye marker slab set in ground	No	1
17	110mm Rodding eye	No	1
18	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	2
19	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3	2
<u>SANITARY FITTINGS</u>			
<u>"Vaal" or similar approved</u>			
20	Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (Code : 7023) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 8448Z0).	No	3
21	Vaal Sanitaryware Hibiscus White vitreous china close coupled washdown suite comprising 90° outlet open rim pan (product code 772600) and matching 6/3 litre front dual flush cistern (product code 710539) including "PARKER AVANT" toilet seat	No	2
<u>WASTE UNIONS ETC</u>			
<u>"Cobra Watertech" or similar approved</u>			
22	38mm "Cobra 316" unslotted waste and plug with chain	No	2
Carried Forward			R
Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

	Brought Forward			R
	<u>TRAPS ETC</u>			
	<u>"Marley" or similar approved</u>			
	<u>Chromium plated</u>			
23	32 x 40mm Bottle trap	No	3	
	<u>CATCH PITS ETC</u>			
	<u>The following in stormwater catchpits, junction boxes and inlet manholes</u>			
	<u>TAPS, VALVES, ETC</u>			
	<u>"Cobra Watertech" or similar approved</u>			
24	Cobra Watertech 15mm chrome plated hi-waste elbow action pillartap with blue indicator for cold water (Code: 504-21B), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No	4	
25	Cobra Watertech 15mm compression type angle regulating valve with 10mm bendable copper outlet tube service connection (Code: 232/350).	No	4	
	<u>SANITARY PLUMBING</u>			
	<u>uPVC pipes</u>			
26	50mm Pipes	m	10	
27	50mm Pipes laid in and including trenches not exceeding 1m deep	m	26	
28	110mm Pipes	m	12	
	<u>Extra over uPVC pipes for fittings</u>			
29	50mm Bend	No	40	
30	50mm Access bend	No	4	
	Carried Forward			R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G			

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
 MAKGOPELE PRIMARY SCHOOL
 LDPWRI-B20305

Brought Forward			R
31	50mm BSP adaptor	No	2
32	50mm "GI Two-way" vent valve	No	1
33	110mm Bend	No	4
34	110mm Access bend	No	4
35	110mm Pan Connector	No	4
36	110mm "GI Two-way" vent valve	No	1
	<u>Sundries</u>		
	<u>WATER SUPPLIES</u>		
	<u>Class 16 uPVC pressure pipes with solvent welded joints</u>		
37	32mm Pipes laid in and including trenches not exceeding 1m deep	m	23
	<u>Extra over class 16 uPVC pressure pipes for fittings with solvent welded joints</u>		
38	32mm Bend	No	4
	<u>Class 0 copper pipes</u>		
39	15mm Pipes	m	24
40	22mm Pipes	m	23
	<u>Extra over class 0 copper pipes for capillary fittings</u>		
41	15mm Fittings	No	34
42	22mm Fittings	No	25
	<u>Brass</u>		
43	15mm Fullway gate valve	No	1
	Carried Forward		R
	Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G		

		Brought Forward			
44	22mm Fullway gate valve	No	1	R	
<p>Carried Forward to Summary of Section No. 6</p> <p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 12 Plumbing and Drainage CLUSTER G</p>					R

Item No		Quantity	Rate	Amount
	<u>SECTION NO.7</u>			
	<u>BUILDING WORK</u>			
	<u>BILL NO. 13</u>			
	<u>GLAZING</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			

	<u>GLAZING TO STEEL WITH PUTTY</u>			
	<u>4mm Clear float glass</u>			
1	Panes exceeding 0,5m2 and not exceeding 2m2	m2	43	
	<u>4mm Rough cast glass</u>			
2	Panes exceeding 0,1m2 and not exceeding 0,5m2	m2	2	
	<u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u>			
	<u>4 mm Silvered float glass copper backed mirrors with 10 mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete</u>			
3	Mirror 400 x 600mm high with four (4) screws	No	2	
	Carried Forward to Summary of Section No. 6			
	Section No. 6			
	1 X 4 WATERBORNE TOILET BLOCK			
	Bill No. 13			
	Glazing			
	CLUSTER G			
			R	

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.7</u></p> <p><u>BUILDING WORK</u></p> <p><u>BILL NO. 14</u></p> <p><u>PAINTWORK</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>DESCRIPTIONS</u></p> <p>Descriptions of paintwork shall be deemed to include for all cutting in</p> <p><u>PAINT SPECIFICATIONS</u></p> <p>All painting shall be done in accordance with "Plascon-Evans" specifications</p> <p style="text-align: center;">-----</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>ON FLOATED PLASTER</u></p>			
	Carried Forward		R	
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 14 Paintwork CLUSTER G</p>			

	Brought Forward			R
1	<p><u>Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.</u></p> <p>On internal walls</p>	m2	168	
	<u>ON FIBRE-CEMENT</u>			
2	<p><u>One coat primer, one coat universal undercoat and two coats super acrylic PVA paint</u></p> <p>On ceilings and cornices</p>	m2	29	
3	<p><u>Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.</u></p> <p>On fascias and barge boards</p>	m2	4	
	<p><u>Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.</u></p> <p><u>ON METAL</u></p>			
	Carried Forward			R
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 14 Paintwork CLUSTER G</p>			

	Brought Forward			R
	<p><u>Plascon Velvaglo Satin to exterior new mild steel (NW 683). Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3 of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.</u></p>			
4	On door frames	m2	5	
5	On windows with burglar bars	m2	2	
6	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area)	m2	4	
7	On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	56	
	<u>ON WOOD</u>			
	<p><u>Plascon Velvaglo Satin to interior new wood (NW 571). Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.</u></p>			
8	On doors	m2	13	
	Carried Forward			R
	<p>Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 14 Paintwork CLUSTER G</p>			

	Brought Forward				R
9	<u>Three coats matt varnish</u> On doors	m2	8		
Carried Forward to Summary of Section No. 6 Section No. 6 1 X 4 WATERBORNE TOILET BLOCK Bill No. 14 Paintwork CLUSTER G					R

Section No. 6

1 X 4 WATERBORNE TOILET BLOCK

SECTION SUMMARY - 1 X 4 WATERBORNE TOILET BLOCK

Bill No		Page No	Amount
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4	Waterproofing	213	
5	Roof Coverings, etc	215	
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7	Ceilings, Partitions and Access Flooring	223	
8	Ironmongery	225	
9	Metalwork	227	
10	Plastering	228	
11	Tiling	229	
12	Plumbing and Drainage	239	
13	Glazing	240	
14	Paintwork	244	
	Carried to Final Summary		R
	Section No. 6		
	1 X 4 WATERBORNE TOILET BLOCK		
	CLUSTER G		

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO. 8</u></p> <p><u>EXTERNAL WORK</u></p> <p><u>BILL NO. 1</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades as well as Engineering Specifications attached to these documents.</p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>NOTE</u></p> <p>All earthworks shall comply with the requirements of the latest relevant SABS 1200 Specifications: 1200C; 1200D;1200DM</p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with soft rock</p> <p><u>Specific Requirements of imported G6 material</u></p> <p>The imported material must conform to the following criteria:</p> <p>(1) Minimum CBR at 93% Mod. AASHTO Density: 15 (2) Minimum swell at 100% Mod. AASHTO Density: 1,5% (3) Maximum PI: 12 (4) Maximum size particles in material: 63mm (5) Grading modulus: $2,7 \geq GM \geq 0,75$</p>			
	Carried Forward		R	
	<p>Section No. 7 EXTERNAL WORKS Bill No. 1 Bulk Earthworks CLUSTER G</p>			

	Brought Forward			R
	<u>Carting away of excavated material</u>			
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site			
	<u>BULK EXCAVATION, FILLING, ETC</u>			
	<u>Excavations</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	585	
	<u>Open face excavation in earth over sloping site</u>			
2	Open face excavation	m3	339	
	<u>Extra over bulk excavation in earth for excavation in</u>			
3	Soft rock	m3	34	
4	Hard rock	m3	17	
	<u>Extra over all excavations for carting away</u>			
5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	90	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavations not exceeding 1 500mm deep	m2	120	
	<u>Keeping excavations free of water</u>			
7	Keeping excavations free of all water other than subterranean water		Item	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 1 Bulk Earthworks CLUSTER G			

	Brought Forward			R
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
8	Earth filling obtained from excavations compacted to 95% Mod AASHTO density	m3	88	
	<u>Earth filling supplied by the contractor compacted to 95% Mod AASHTO density</u>			
	The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.			
	Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit			
9	150mm Imported C4 material with and including 3% 32,50 BV cement and consolidated to 97% mod. AASHTO density	m3	76	
10	150mm Imported G6 material compacted to 95% mod. AASHTO density	m3	88	
11	150mm Imported G7 material compacted to 95% mod. AASHTO density	m3	88	
	<u>Prescribed density tests on filling</u>			
12	"Modified AASHTO Density" test	No	10	
13	Maximum dry density and optimum moisture content (MOD)	No	10	
	Carried Forward to Summary of Section No. 7			R
	Section No. 7 EXTERNAL WORKS Bill No. 1 Bulk Earthworks CLUSTER G			

Item No		Quantity	Rate	Amount
	<u>SECTION NO.8</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO 4</u>			
	<u>PARKING AND PAVINGS</u>			
	Materials and workmanship must be in accordance to the following SABS 1200 specifications:			
	C - Site clearance			
	D - Earthworks			
	DM - Earthworks (Roads, subgrade)			
	M - Roads (General)			
	ME - Sub-base			
	MF - Base			
	MK - Kerb and Channeling			
	MM - Ancillary Roadworks			
	<u>ACCESS ROAD AND VEHICLE PARKING</u>			
	<u>EARTHWORKS</u>			
	<u>Excavations</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	707	
2	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	707	
3	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	424	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G			

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	Brought Forward			R
4	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	318	
5	Extra over excavation for excavation in soft rock	m3	71	
6	Ditto, but in hard rock	m3	35	
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
7	Under floors, steps, paving, etc	m3	106	
	<u>Earth filling supplied by the contractor under pavings etc</u>			
	The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.			
	Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit			
8	Over site of G7 material in accordance with SABS 1200 DM compacted to 95% Mod AASHTO density	m3	106	
9	150mm Imported G6 material compacted to 95% mod. AASHTO density	m3	106	
10	150mm Imported C4 material with and including 3% 32,50 BV cement and consolidated to 97% mod. AASHTO density	m3	106	
11	25mm Thick layer clean,dry, riversand layer treated with an approved weed killer at the rate of 50 grams per square metre,spread and levelled to receive paving blocks (elsewhere measured)	m2	707	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G			

Brought Forward			R
<u>Compaction of surfaces</u>			
12	Compaction of ground surface under parking areas etc by wetting and compacting	m2	707
<u>Prescribed density tests on filling</u>			
13	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	10
14	Tests to determine the degree of compaction, etc of ground filling	No	10
<u>PAVING</u>			
<u>Interlocking Pavings</u>			
15	80mm Thick double interlocking (DZZ) precast grey coloured concrete paving blocks laid in a herringbone pattern on and including 20mm sand founding layer with and covered with sand layer sweep into joints	m2	707
16	Circular cutting to paving	m	35
<u>Kerbs, etc</u>			
17	Precast concrete figure 7 mountable kerb (SABS 927), levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	283
18	Precast concrete figure 7 kerb (SABS 927), circular on plan n.e 4m area levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	247
Carried Forward			R
Section No. 7 EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G			

		Brought Forward		R
<u>Sundries</u>				
19	Mass concrete (25MPa) in 300 x 150mm edge filler strip finished smooth on top with a wood float, including all excavation, formwork, etc	m	8	
<u>PAINTWORK</u>				
<u>Prepare and paint one coat reflective road marking paint on concrete paving block surfaces</u>				
20	Lines 100mm wide	m	70	
21	Disable persons pictorial 1000mm high	No	1	
<u>Sign Faces with Painted or Galvanised (as stated) Background, with Painted Symbols, Characters, Legend and Borders, and with Signboardings Constructed from:</u>				
<u>Sign Supports supplied and installed including excavations, backfilling, concrete, disposal, etc</u>				
22	Steel tubing 76mm diameter x 2,5mm thick CHS sections 3m long, with two coats bitumen tar below ground and zinc phosphate primer and two coats metal paint above ground	No	1	
<u>ASSEMBLY AREA AND WALKWAYS</u>				
<u>EARTHWORKS</u>				
<u>Excavations</u>				
<u>Site clearance</u>				
23	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	1,537	
24	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	1,537	
		Carried Forward		R
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	Brought Forward			R
25	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	231	
26	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	231	
27	Extra over excavation for excavation in soft rock	m3	23	
28	Ditto, but in hard rock	m3	12	
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
29	Under floors, steps, paving, etc	m3	231	
	<u>Earth filling supplied by the contractor under pavings etc</u>			
	The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.			
	Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit			
30	150mm Imported G6 material compacted to 95% mod. AASHTO density	m3	231	
31	25mm Thick layer clean,dry, riversand layer treated with an approved weed killer at the rate of 50 grams per square metre,spread and levelled to receive paving blocks (elsewhere measured)	m2	1,537	
	<u>Compaction of surfaces</u>			
32	Compaction of ground surface under parking areas etc by wetting and compacting	m2	1,537	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G			

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Brought Forward				R
<u>Prescribed density tests on filling</u>				
33	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	10	
34	Tests to determine the degree of compaction, etc of ground filling	No	10	
<u>PAVING</u>				
<u>Interlocking Pavings</u>				
35	60mm Thick double interlocking (DZZ) precast grey coloured concrete paving blocks laid in a herringbone pattern on and including 20mm sand founding layer with and covered with sand layer sweep into joints	m2	1,537	
36	Circular cutting to paving	m	615	
<u>Kerbs, etc</u>				
37	Precast concrete figure 7 mountable kerb (SABS 927), levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	615	
38	Precast concrete figure 7 kerb (SABS 927), circular on plan n.e 4m area levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	461	
<u>Sundries</u>				
39	Mass concrete (25MPa) in 300 x 150mm edge filler strip finished smooth on top with a wood float, including all excavation, formwork, etc	m	15	
Carried Forward				R
Section No. 7 EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G				

	Brought Forward		R
	<u>CARPORTS</u>		
40	Provide the amount of R350 000,00 (Three Hundred Fifty Thousand Rand) for the supply and installation of Carports by Specialists	Item	350,000.00
41	Allow for profit on above if required	Item	
42	Allow for giving every facility to Specialists as described	Item	
	Carried Forward to Summary of Section No. 7		R
	Section No. 7 EXTERNAL WORKS Bill No. 2 Paving and Carports CLUSTER G		

Item No		Quantity	Rate	Amount
	<u>SECTION NO.8</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO 4</u>			
	<u>STORMWATER DRAINAGE</u>			
	Materials and workmanship must be in accordance to the following SABS 1200 specifications:			
	C - Site clearance			
	D - Earthworks			
	DM - Earthworks (Roads, subgrade)			
	M - Roads (General)			
	ME - Sub-base			
	MF - Base			
	MK - Kerb and Channeling			
	MM - Ancillary Roadworks			
	<u>ACCESS ROAD AND VEHICLE PARKING</u>			
	<u>EARTHWORKS</u>			
	<u>Excavations</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc for paving and bulk site clearance	m2	207	
2	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	207	
3	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	49	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 3 Stormwater Drainage CLUSTER G			

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	Brought Forward			R
4	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	49	
5	Extra over excavation for excavation in soft rock	m3	5	
6	Ditto, but in hard rock	m3	2	
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
7	Under floors, steps, paving, etc	m3	31	
	<u>Earth filling supplied by the contractor under pavings etc</u>			
	<u>Compaction of surfaces</u>			
8	Compaction of ground surface under parking areas etc by wetting and compacting	m2	207	
	<u>Prescribed density tests on filling</u>			
9	In-situ dry density (sand replacement) test in accordance with method A10 (a) of TMH 1	No	10	
	<u>REINFORCED CONCRETE</u>			
	<u>30MPa/19mm concrete</u>			
10	Stormwater channels cast in panels	m3	21	
	<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
11	Surface beds, slabs, etc	m2	207	
	<u>FORMWORK</u>			
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 3 Stormwater Drainage CLUSTER G			

Brought Forward							
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>							
<u>Rough formwork to sides</u>							
12	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	207				R
<u>TEST CUBES</u>							
13	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	5.0				
<u>MOVEMENT JOINTS ETC</u>							
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces</u>							
14	Saw cut joints in top of concrete	m	207				
<u>REINFORCEMENT</u>							
<u>REINFORCEMENT (PROVISIONAL)</u>							
<u>Fabric reinforcement</u>							
15	Type 311 fabric reinforcement in concrete slabs etc	m2	207				
Carried Forward to Summary of Section No. 7							
Section No. 7							
EXTERNAL WORKS							
Bill No. 3							
Stormwater Drainage							
CLUSTER G							

Item No		Quantity	Rate	Amount
	<u>SECTION NO.8</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO 4</u>			
	<u>WATER SUPPLIES</u>			
	<u>Materials and workmanship must be in accordance to the following SABS 1200 specifications:</u>			
	C - Site clearance			
	D - Earthworks			
	DM - Earthworks (Roads, subgrade)			
	M - Roads (General)			
	ME - Sub-base			
	MF - Base			
	MK - Kerb and Channeling			
	MM - Ancillary Roadworks			
	<u>Class 6 uPVC pipes including fittings</u>			
1	75mm Pipes laid in and including trenches not exceeding 1m deep	m	430	
2	25mm Pipes laid in and including trenches not exceeding 1m deep	m	70	
	<u>Extra over class 6 uPVC pressure pipes for fittings with solvent welded joints</u>			
3	25mm Junction	No	4	
4	25mm Bend	No	8	
5	75 x 25mm Reducer	No	12	
6	25 x 15 x 25mm Tee	No	12	
7	25 x 22mm Reducer	No	4	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 4 Water Supply CLUSTER G			

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		Brought Forward			R
8	25mm Tee	No	5		
9	75mm Elbow	No	4		
10	75mm Junction	No	8		
11	75 x 32mm reducer	No	8		
12	75 x 32 x 63mm Tee	No	4		
	<u>DRINKING FOUNTAIN</u>				
	<u>Money Provision:</u>				
13	Provide a sum of R100 000,00 (One Hundred thousand rand) for construction of drinking fountain not clearly defined at the time of tender		Item		50,000.00
	Carried Forward to Summary of Section No. 7				
	Section No. 7 EXTERNAL WORKS Bill No. 4 Water Supply CLUSTER G				R

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.8</u></p> <p><u>BILL NO. 6</u></p> <p><u>SOIL DRAINAGE</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>"Polylink" polypropylene pipes:</u></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p>			
	Carried Forward		R	
	<p>Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G</p>			

Brought Forward			R
<p>Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same</p> <p>All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>Concrete pipes:</u></p> <p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings</p> <p><u>Vitrified clay pipes:</u></p> <p>Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid</p> <p>Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings</p> <p><u>uPVC pipes and fittings:</u></p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p> <p><u>uPVC pressure pipes and fittings:</u></p> <p>Pipes for water supply shall be of the class stated</p> <p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints</p>			
Carried Forward			R
<p>Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G</p>			

Brought Forward		R
<p><u>Copper pipes:</u></p> <p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p><u>Fixing of pipes</u></p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level</p> <p><u>Lead pipes and fittings</u></p> <p>All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel</p> <p><u>Reducing fittings</u></p> <p>Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained</p> <p><u>Septic tanks</u></p> <p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions</p>		
Carried Forward		R
<p>Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G</p>		

<p style="text-align: center;">Brought Forward</p> <p><u>Exposed concrete surfaces</u></p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling</p> <p>"Soft rock" and "hard rock" shall be as defined in "Earthworks"</p> <p><u>Laying, backfilling, bedding, etc. of pipes</u></p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p> <p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding</p> <p><u>Flush pans</u></p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p><u>Stainless steelbasins, sinks, wash troughs, urinals, etc.</u></p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p>	R	
<p style="text-align: center;">Carried Forward</p> <p>Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G</p>	R	

	Brought Forward			R
	<u>Waste unions</u>			
	Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings			
	<u>Steel sectional water tanks</u>			
	Tanks shall comply with SABS CKS 114			
	<u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u>			
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described			
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc			
	<u>SOIL DRAINAGE</u>			
	<u>"Corflo" double walled radial ribbed uPVC pipes with intergral moulded cuff joints and rubber seal rings</u>			
	<u>"Corflo" double walled radial ribbed class 34 uPVC pipes with intergral moulded cuff joints and rubber seal rings</u>			
1	110mm Pipes vertically or ramped to cleaning eyes etc	m	130	
2	160mm Pipes vertically or ramped to cleaning eyes etc	m	150	
	<u>Extra over "Corflo" double walled radial ribbed uPVC pipes with intergral moulded cuff joints and rubber seal rings for uPVC fittings</u>			
3	110mm Bend	No	2	
4	160mm Bend	No	4	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G			

	Brought Forward			R
5	110mm Junction	No	6	
6	160mm Junction	No	4	
7	110mm End cap	No	1	
8	160mm End cap	No	1	
9	160 x 160 x 110mm Access reducing junction	No	4	
	<u>SUNDRIES</u>			
	<u>Precast concrete circular inspection chambers, with and including manhole cover and frame all as per Engineer's drawings no.?????</u>			
10	Inspection chamber 1000mm diameter and not exceeding 750mm deep internally	No	4	
11	Inspection chamber 1000mm diameter and exceeding 750mm and not exceeding 1000mm deep internally	No	4	
12	Inspection chamber 1000mm diameter and exceeding 1000mm and not exceeding 2000mm deep internally	No	3	
	<u>Covers etc</u>			
13	Lifting key for manhole cover	No	11	
	<u>SEPTIC TANKS, ETC.</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<u>SITE CLEARANCE ETC</u>			
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G			

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	Brought Forward			R
	<u>Site clearance</u>			
14	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	38	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
15	Holes	m3	33	
	<u>Excavation in earth exceeding 2m and not exceeding 4m deep</u>			
16	Holes	m3	4	
	<u>Extra over all excavations for carting away</u>			
17	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	17	
	<u>Risk of collapse of excavations</u>			
18	Sides of trench and hole excavations not exceeding 1,5m deep	m2	27	
19	Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep	m2	13	
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
20	Backfilling to trenches, holes, etc	m3	20	
	<u>Keeping excavations free of water</u>			
21	Keeping excavations free of all water other than subterranean water			
			Item	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G			

Brought Forward			R
<u>REINFORCED CONCRETE</u>			
<u>20MPa/19mm concrete</u>			
22	Surface beds cast in panels	m3	1
23	Slab over septic tank	m3	1
24	Concrete haunch formed below pipes	m3	0.04
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
25	Surface beds, slabs, etc to falls	m2	18
<u>Grooves, channels, mortice, sinkings, etc in concrete</u>			
	Form 25 x 25mm chamfer to edges of concrete	m	13
<u>Permanent formwork to soffits</u>			
26	Slab over septic tank	m2	6
<u>Smooth formwork to form</u>			
27	Opening not exceeding 1m girth through 150mm slab	No	2
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>			
<u>Smooth formwork to sides</u>			
28	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	14
<u>REINFORCEMENT</u>			
Carried Forward			R
Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G			

Brought Forward			R
<u>Mild steel reinforcement to structural concrete work</u>			
29	10mm Diameter bars	t	0.04
<u>Fabric reinforcement</u>			
30	Steeledale Mesh standard square fabric mesh, nominal mass 3,95 kg/m ² with nominal 8mm thick wires and 200 x 200mm pitch (code 395), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.(septic tank bottoms)	m2	9
<u>MASONRY</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
31	One brick walls	m2	23
<u>Brickwork reinforcement</u>			
32	150mm Wide reinforcement built in horizontally	m	72
<u>BRICKWORK SUNDRIES</u>			
33	Leave of form 450 x 150mm high opening through a one brick wall	No	1
34	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	2
<u>PLASTERING</u>			
<u>Watertight cement plaster on brickwork</u>			
35	On walls	m2	23
<u>PLUMBING AND DRAINAGE</u>			
<u>uPVC pipes</u>			
36	110mm Pipes	m	1
Carried Forward			R
Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G			

Brought Forward			R
	<u>Extra over uPVC pipes for fittings</u>		
37	110mm Tee	No	2
	<u>Cover, etc</u>		
38	600 x 600mm Type 2A cast iron single seal manhole cover and frame	No	2
39	Lifting key for manhole cover	No	2
	<u>FRENCH DRAINS</u>		
	<u>SITE CLEARANCE ETC</u>		
	<u>Site clearance</u>		
40	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	45
	<u>EXCAVATION, FILLING, ETC</u>		
	<u>Excavation in earth not exceeding 2m deep</u>		
41	Holes	m3	19
	<u>Extra over trench and hole excavations in earth for excavation in</u>		
42	Soft rock	m3	1
43	Hard rock	m3	2
	<u>Extra over all excavations for carting away</u>		
44	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	16
	Carried Forward		R
	Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G		

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
 MAKGOPELE PRIMARY SCHOOL
 LDPWRI-B20305

	Brought Forward			R
	<u>Risk of collapse of excavations</u>			
45	Sides of trench and hole excavations not exceeding 1,5m deep	m2	35	
	<u>Keeping excavations free of water</u>			
46	Keeping excavations free of all water other than subterranean water		Item	
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site (not compacted)</u>			
47	On top of french drain as soil cover	m3	3	
	<u>FILTER FABRIC</u>			
	<u>"Kaytech Engineered Fabric" or similar approved laid in strict accordance to the manufacturer's instructions</u>			
48	"Kaymat U14" around stone filling in sub-soil drain trenches	m2	38	
	<u>20mm Graded stone filling or similar approved</u>			
49	In holes	m3	5	
	<u>200 - 300mm Diameter clean washed stone filling or similar approved by engineer</u>			
50	In holes	m3	11	
	<u>WATERPROOFING</u>			
	<u>One layer of 250 micron "Tarkon USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
51	On top of pipes as protection of joints	m2	9	
	Carried Forward			R
	Section No. 7 EXTERNAL WORKS Bill No. 5 Sewer Drainage CLUSTER G			

	Brought Forward			R
	<u>uPVC pipes</u>			
52	110mm Inspection pipes	m	8	
	<u>Extra over uPVC pipes for fittings</u>			
53	110mm End cap	No	1	
Carried Forward to Summary of Section No. 7				R
Section No. 7				
EXTERNAL WORKS				
Bill No. 5				
Sewer Drainage				
CLUSTER G				

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
 MAKGOPELE PRIMARY SCHOOL
 LDPWRI-B20305

Item No		Quantity	Rate	Amount
	<u>SECTION NO.8</u>			
	<u>BILL NO.6</u>			
	<u>FENCING</u>			
	<u>SITE CLEARANCE, ETC.</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	378	
	<u>Steel palisade fencing</u>			
2	Steel palisade fence 2100mm high above ground level over flat or sloping terrain including all posts, excavation, backfilling, concrete bases, etc	m	630	
3	Single gate gate 1200 x 2100m high including heavy duty hasp and staple, padlock and two barrel bolts with two keeps in and including concrete anchor blocks with Spot primer defects in pre-primed surfaces with zinc chromate primer UC 53, one universal undercoat and two coats approved enamel paint	No	1	
4	Single gate gate 2982 x 2100m high including heavy duty hasp and staple, padlock and two barrel bolts with two keeps in and including concrete anchor blocks with Spot primer defects in pre-primed surfaces with zinc chromate primer UC 53, one universal undercoat and two coats approved enamel paint	No	1	
	Carried Forward to Summary of Section No. 7			R
	Section No. 7 EXTERNAL WORKS Bill No. 6 Fencing CLUSTER G			

Section No. 7

EXTERNAL WORKS

SECTION SUMMARY - EXTERNAL WORKS

Bill No		Page No	Amount
1	Bulk Earthworks	248	
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3	Stormwater Drainage	258	
4	Water Supply	260	
5	Sewer Drainage	272	
6	Fencing	273	
	Carried to Final Summary		R
	Section No. 7 EXTERNAL WORKS CLUSTER G		

Item No		Quantity	Rate	Amount
	<p><u>SECTION NO.9</u></p> <p><u>BILL NO.1</u></p> <p><u>PROVISIONAL SUMS</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>NOTE: Tenderers are referred to the definition of general attendance on nominated sub-contractors given in Clause 9 of the Preliminaries</p> <p>NOTE: Under no circumstances may any Prime Cost - Provisional Amount, etc be extended at an amount lower than the amount given in the Bill</p>			
	Carried Forward		R	
	<p>Section No. 8 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS CLUSTER G</p>			

Brought Forward			R
<p>THE FOLLOWING PROVISIONAL SUMS ARE FOR WORK TO BE EXECUTED BY SELECTED SUBCONTRACTORS</p> <p>The following Provisional Sums are for specialists work to be executed by a selected Sub-contractor who upon appointment in terms of the Conditions of Contract shall be deemed to be a Domestic Sub-Contractor to the Contractor</p> <p>A Selected Sub-Contractor shall be a Sub-contractor executing work for which a sum of money is provided for in the Bills of Quantities or a Sub-contractor executing additional specialist work which arises as a result of an instruction by the Principal Agent/Engineer</p> <p>Tender documents for such work shall be prepared by the Principal Agent/Engineer in consultation with and to the approval of the Contractor and such tender document shall be issued by the Principal Agent/Engineer to a list of tenderers agreed upon between the Principal Agent/Engineer and Contractor. Tenders shall be submitted to the Principal Agent/Engineer</p> <p>The Selected Sub-contractor shall be chosen by the Principal Agent/Engineer and the Contractor, and the Contractor shall satisfy himself that such selected sub-contractor can meet the requirements of the Sub-Contract agreement and the Contractor shall inform the Principal Agent/Engineer accordingly</p> <p>The procedure relating to the method of selection, obtaining of tenders, adjudication thereof and the appointment of the Selected Sub-contractor shall not create any contractual relationship between the Client and the Selected Sub-contractor</p> <p><u>RAINWATER HARVEST ETC</u></p>			
1	Provide the sum of R 100,000-00 for the supply and installation of Rainwater Harvest	Item	100,000.00
2	Allow for profit.	Item	
	Carried Forward		R
Section No. 8 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS CLUSTER G			

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
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Brought Forward		R
3	Allow for attendance on sub-contractor	Item
	<u>Borehole Development and equipping including 10m high elevated Bulk Water Storage tank including footings. Tank stander</u>	
4	Provide the amount of R350 000.00 (Three Hundred Fifty Thousand Rand) for equipping of borehole , elevated water storage and Water pipe reticulation by Specialists approved by the civil engineer	Item 350,000.00
5	Allow for profit on above if required	Item
6	Allow for giving every facility to Specialists as described	Item
	<u>Community Liaison Officer</u>	
7	Provide the sum of R190,000.00 (One Hundred Ninety Thousand Rand) for community liaison officer	Item 190,000.00
8	Allow for giving every facility to Specialists as described	Item
9	Allow for profit on above if required	Item
	<u>Project Steering Committee</u>	
10	Provide a sum of R50 000,00 (Fifty Thousand Rand) for the provision of a Project Steering Committee	Item 50,000.00
11	Allow for profit on above if required	Item
12	Allow for giving every to specialist as described	Item
	<u>Mobile Classroom Relocation</u>	
13	Provide the sum of R 100,000-00(One Hundred Fifty Thousand Rand) for mobile relocations	Item 100,000.00
14	Allow for profit.	Item
15	Allow for attendance on sub-contractor	Item
Carried Forward		R
Section No. 8 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS CLUSTER G		

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
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			R
	Brought Forward		
	<u>CONTRACT PARTICIPATION GOALS</u>		
16	Provide the sum of R 50 000.00 (Fifty Thousand Rand) for contract participation goals for targeted enterprises in accordance to CIDB Competence Standard for Contractors Gazette No. 41237, 10 November 2017.	Item	50,000.00
17	Allow for profit.	Item	
18	Allow for attendance on sub-contractor	Item	
	<u>ELECTRICAL, ELECTRONICAL AND MECHANICAL INSTALLATION</u>		
	<u>Electrical Installation, etc</u>		
19	Provide the amount of R1,200,000.00 (One Million Two Hundred Thousand Rand) for electrical installation to the buildings and site by Specialists	Item	1,200,000.00
20	Allow for giving every facility to Specialists as described	Item	
21	Allow for profit on above if required	Item	
	<u>WORK EXECUTED BY SEPARATE DIRECT SERVICE PROVIDERS</u>		
	<u>The following work will be executed by service providers under direct agreement with the employer. The contractor is to accommodate these services providers and allow them to execute their work unhindered and allow them the usage of water and toilet facilities. Damage caused by these service provider to work completed by the principal contractor to be recorded in detail to enable the employer to counter-charge the direct service provider the cost of making good such damages</u>		
	Carried Forward		
	Section No. 8 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS CLUSTER G		R

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
 BILLS OF QUANTITIES
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	Brought Forward		R
	<u>Occupation Health and Safety</u>		
22	Provide the sum of R350,000.00 (Three Hundred Fifty Thousand Rand) for Health and Safety Consultant to be appointed as nominated sub contractor from the client	Item	350,000.00
23	Allow for giving every facility to Specialists as described	Item	
24	Allow for profit on above if required	Item	
	<u>Social Facilitator</u>		
25	Provide the sum of R 250,000.00 (Two Hundred Fifty Thousand Rand) for the social facilitator	Item	250,000.00
26	Allow for profit.	Item	
27	Allow for attendance on sub-contractor	Item	
	Carried to Final Summary		R
	Section No. 8 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS CLUSTER G		

DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
BILLS OF QUANTITIES
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2	DEMOLITIONS OF 3 X 4 SEATER PIT TOILETS	69	
3	RENOVATIONS OF 3 X 3 CLASSROOM BLOCKS AND 5 X 4 SEATER ENVIROLOO TOILETS	105	
4	MEDIUM ADMIN BLOCK	161	
5	1 X 4 CLASSROOM BLOCK	200	
6	1 X 4 WATERBORNE TOILET BLOCK	245	
7	EXTERNAL WORKS	274	
8	PROVISIONAL SUMS	279	
	Sub Total		R
	<u>CONTINGENCIES</u>		
	<u>Contingencies:</u>		
	Provide the amount of R900 000.00 (Nine Hundred thousand Rand) for contingencies to be used by the architect in terms of clause 17 of the principal Building Agreement.	Item	900,000.00
	<u>SPECIAL CONDITIONS</u>		
	Provide the sum of R 750 000.00 (Seven Hundred Thousand Rand) for fluctuations in cost	Item	750,000.00
	Sub Total		R
	<u>Add:</u> Value Added Tax at 15%		R
	Carried to Form of Tender		R
	CLUSTER G		

PART C3 SCOPE OF WORKS

SCOPE OF WORKS

BID NUMBER: LDPWRI-B/20305

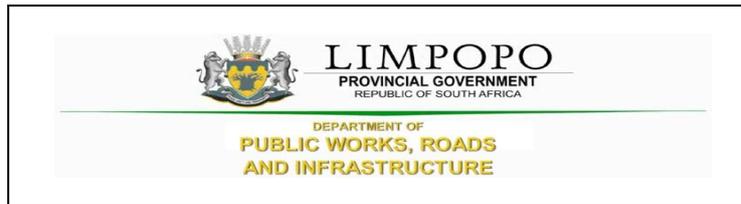
APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITIONS OF 12 PIT TOILETS, RENOVATIONS TO 20 ENVIROLOO TOILETS, 9 CLASSROOMS AND THE CONSTRUCTION OF MEDIUM ADMIN, 4 CLASSROOMS, 1 X 4 SEATER WATERBORNE TOILETS AND EXTERNAL WORKS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT



PART C3.1: SPECIAL NOTES TO BIDDERS

The following special conditions are for compliance and attention to bidders:

- 1.1. LDPWR&I reserve the right to call interviews with short-listed bidders before final selection.
- 1.2. LDPWR&I reserve the right to conduct supplier due diligence prior to final award or at any time during the contract period. This may include surprise site visits.
- 1.3. LDPWR&I reserve the right to appoint the bidder that proves to be fully capable and qualified to handle and execute the job.
- 1.4. The proposals submitted must be in line with the detailed specification.
- 1.5. LDPWR&I reserve the right to cancel or withdraw this bid if:
 - i. Due to changed circumstances, there is no longer a need for this services; or
 - ii. Funds are no longer available to cover the total envisaged expenditure; or
 - iii. No acceptable bids are received; or
 - iv. There is a material irregularity in the Bid process.
- 1.6. In the case of sub-contracting or joint venture agreement, LDPWR&I will enter into a single contract with the principal bidder.
- 1.7. Bidders who are not registered on Central Supplier Database (CSD) must register before submission of bids.
- 1.8. Any completion of the bid document in pencil or erasable ink will not be acceptable and will automatically disqualify the submitted bid.
- 1.9. Successful bidder will be required to sign and enter into a formal contract upon the award.
- 1.10. Notwithstanding shortcomings and/or inconsistencies, if any, in this specification, which is only a minimum specification, a bidder shall make provision for a complete solution that will deliver the required service efficiently and cost-effectively.
- 1.11. Bid documents must be submitted physically to the closing address as reflected on the Request for Quotations/Tender.
- 1.12. Quotations received after the closing date and time will not be accepted for consideration.
- 1.13. This request for bid document contains confidential information about LDPWR&I, which has been provided to supply potential bidders with the data necessary to provide a holistic response.
- 1.14. No part of the contents may be used, copied, disclosed or conveyed in whole or in part to any party, in any manner whatsoever without the prior written permission of LDPWR&I.
- 1.15. Any reproduction or transmission of information contained in this document except for the sole purpose of responding to this bid is strictly prohibited.
- 1.16. References to LDPWR&I must not be made in any literature, promotional material, and brochures or sales presentations without the express written consent of LDPWR&I.

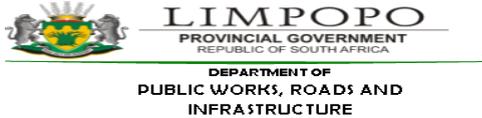


PART C3.2: OHS SPECIFICATIONS

 <p>LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA</p> <hr/> <p>DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE</p>	<p>OHS Specification REFURBISHMENT AND ADDITIONS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT</p>	Project Number
		LDPWRI-B/20305
		Page Number
		Page 1 of 42

OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION FOR REFURBISHMENT AND ADDITIONS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT

PREPARED BY:



**DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE
LIMPOPO**

**43 Church Street
Polokwane
0700**

Project Name: **REFURBISHMENT AND ADDITIONS AT MAKGOPELE PRIMARY SCHOOL IN MOPANI DISTRICT**

This specification has been prepared, in accordance with the requirements of the Occupational Health and Safety Act (Act 85 of 1993) along with the Construction Regulations 2014, to assist all Contractors in providing for a Health and Safety management system which is in line with The Client requirements, without derogating from the legal obligations of the responding parties. Contractors however will remain responsible for ensuring the health and safety of their employees and must comply with Construction Regulations 2014.

The project has as its driving force the creation of a construction environment in which the achievement of “Zero Harm” is not only possible, but very real. To this end this specification will be the benchmark against which all Contractors’ Safety Management Plans will be measured. Safety Management Plans which are not in line with the requirements contained in this specification will be rejected and Contractors will not be allowed to commence with any works until such time as these have been modified.

Health and safety on the **DEPARTMENT OF PUBLIC WORKS ROADS AND INFRASTRUCTURE LIMPOPO** construction site can only be assured if all stakeholders buy into a singular management approach, integrating the line accountability of all management staff and workers on site. The management systems provided for in this specification are designed to encourage open and unfettered participation, which will in turn provide for continuous improvement, resulting in the completion of a zero-harm project.

Accidents and injuries are preventable and all safety management plans must have as its basis the comprehensive identification, assessment and reduction of risk. This Project Health and Safety Specification is built on the following safety principles:

- All incidents are preventable
- Visible leadership is implemented and imperative at all levels
- Sound non-negotiable world class procedures and standards
- Zero tolerance for unsafe conditions or behaviors

This document sets out the responsibilities, processes and methods that must be complied with to ensure the pro-active management of Contractor’s occupational health and safety during the construction and commissioning phases of the Project.

In view of the above mentioned, you are herewith presented with the Client Safety Specification for the Project; upon the successful awarding of the tender to yourself, you will be required to present the Occupational Health & Safety (OH&S) Agent with your written Health and Safety Plan indicating how you plan to conform to the SafetySpecification on site. Once we have satisfied ourselves that your plan will ensure compliance with the requirements as set out in this specification, Acts and Regulations and Municipal by-laws, approval thereofwill be granted and work may commence. (Please note that generic Safety Plans or a Safety Plan that do not address the requirements as per the Client’s Safety Specification will not be approved).

Thereafter the OH&S Agent will conduct regular monthly audits to ensure on-going adherence to the presented Safety Plan. The Construction Regulations requires of the Client, or the Client’sAgent, to halt construction if the Safety Plan is not adhered to.

Refer to Annexure “C” of this document for package specific requirements which may be required as part of the tender submission.

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1. INTRODUCTION AND BACKGROUND

In terms of Construction Regulation 5(1)(b) of the Occupational Health and Safety Act, No.85 of 1993 the Client, is required to compile a Health & Safety Specification for any intended project and provide such specification to any prospective Contractor who, on appointment shall submit a Health and Safety Plan which shall address the requirements of this specification.

This specification's objective is to ensure that any Contractor entering into a Contract with **DEPARTMENT OF PUBLIC WORKS** achieves an acceptable level of OH&S performance. This document forms an integral part of the Contract. Principal and other Contractors should make it part of any Contract that they may have with their Contractors and/or Suppliers. The requirements, as contained in this specification, along with the inherent responsibilities associated with the Occupational Health and Safety Act and its associated Regulations should be taken into account when costing your portion of the works.

This document does not absolve the Client from complying with minimum legal requirements and the Client remains responsible for the Health & Safety of his employees and those of his Mandataries. Client or his appointed Agent, reserves the right to audit, monitor and where necessary regulate the site work activities of any Principal Contractor or Principal-appointed Sub-contractor as per Construction Regulation 5(1)(k) and 7(1)(c)(v).

OMISSIONS FROM THIS SHE SPECIFICATION

By compiling this Safety, Health and Environmental Specification, the Client has endeavored to address the most critical aspects relating to Safety, Health and Environmental issues in order to assist the Contractor in adequately providing for the health and safety of employees on site. Should the Client not have addressed all health and safety aspects pertaining to the work that is tendered for, the Contractor needs to include it in the Safety, Health and Environmental Plan and inform Client of such issues when submitting the tender.

2. REFERENCES

The Contractor shall in respect of all matters arising in the fulfilment of this Safety and Health Specification comply at his own expense with all laws, regulations, by-laws and requirements of local and or other authorities that may be applicable to the Contract Works. In this regard, special reference is made to the following safety, health and labour legislation, which does not constitute an exhaustive list:

- Occupational Health and Safety Act, Act No 85 of 1993
- Compensation for Occupational Injuries and Diseases Act, Act No 130 of 1993
- Hazardous Substances Act, Act No 85 of 1973
- Project and Construction Professions Act, Act 48 of 2000
- National Road Traffic Act, Act No 93 of 1996
- Prevention of Environmental Pollution Ordinance 21 of 1981
- Water Services Act, Act No 108 of 1997

Or any other Act passed in substitution of the abovementioned

3. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM ELEMENTS

3.1 Interpretations

3.1.1 Application

This specification document is a legal compliance document drawn up in terms of the OHS Act and is therefore binding. All Contractors entering into a Contract with the Client shall, as a minimum, comply with the;

- **Occupational Health & Safety Act and Regulations (Act 85 of 1993)**. A current, up-to-date copy of the OHS Act and Construction Regulations must be available on site at all times
- **Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993)**. The Principal Contractor will be required to submit a letter of Registration and "good-standing" from the Compensation Insurer before being awarded the Contract.
- All Contractors shall comply with the "**Integration Labour Law Act**" and regulations
- All relevant **Municipal by-laws and National Building Regulations**
- **The Immigrations Act 2002** as amended and shall further ensure that no illegal aliens are employed on the construction site.

3.1.2 New Construction Regulations 2014

New construction Regulations 2014 have been promulgated on the 7th August 2014.

4. DUTIES OF THE DESIGNER

1) The designer of a structure must —

- Ensure that the applicable safety standards incorporated into these Regulations, under section 44 of the Act, are complied with in the design;
- Take into consideration the Health and Safety Specification submitted by the Client;
- Before the contract is put out to tender, make available in a report to the Client—
- All relevant Health and Safety information about the design of the relevant structure that may affect the pricing of the construction work;
- The geotechnical-science aspects, where appropriate; and
- The loading that the structure is designed to withstand;
- Inform the Client in writing of any known or anticipated dangers or hazards relating to the construction work, and make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered;
- Refrain from including anything in the design of the structure necessitating the use of dangerous procedures or materials hazardous to the health and safety of persons, which can be avoided by modifying the design or by substituting materials;
- Take into account the hazards relating to any subsequent maintenance of the relevant structure and must make provision in the design for that work to be performed to minimize the risk;

- When mandated by the Client to do so, carry out the necessary inspections at appropriate stages to verify that the construction of the relevant structure is carried out in accordance with his design: Provided that if the designer is not so mandated, the Client's appointed Agent in this regard is responsible to carry out such inspections;
- When mandated as contemplated in paragraph (g), stop any Contractor from executing any construction work which is not in accordance with the relevant design's health and safety aspects: Provided that if the designer is not so mandated, the Client's appointed Agent in that regard must stop that Contractor from executing that construction work;
- When mandated as contemplated in paragraph (g), in his or her final inspection of the completed structure in accordance with the National Building Regulations, include the health and safety aspects of the structure as far as reasonably practicable, declare the structure safe for use, and issue a completion certificate to the Client and a copy thereof to the Contractor; and
- During the design stage, take cognisance of ergonomic design principles in order to minimize ergonomic related hazards in all phases of the life cycle of a structure.

(2) The designer of temporary works must ensure that—

- All temporary works are adequately designed so that it will be capable of supporting all anticipated vertical and lateral loads that may be applied;
- The designs of temporary works are done with close reference to the structural design drawings issued by the Contractor, and in the event of any uncertainty consult the Contractor;
- All drawings and calculations pertaining to the design of temporary works are kept at the office of the temporary works designer and are made available on request by an inspector; and
- The loads caused by the temporary works and any imposed loads are clearly indicated in the design.
- A geo science technical report where appropriate
- The load the structure is designed to withstand
- The methods and sequence of construction the construction process

5. PRINCIPAL CONTRACTOR

The Principal Contractor carries prime accountability & responsibility for the health and safety of his/her employees & his/her Sub-contractors within his/her working area, as contemplated by Section 37(2) of the OHS Act. None of the additional safety requirements specified by the Client/Agent reduces the Principal Contractor's accountability and responsibility for the health and safety of his employees and Sub-contractor employees within his working area. The Principal Contractor remains an employer in their own right and consequently responsible for the implementation and management of all requirements as per the applicable legislation.

5.1 Principal Contractor and Contractor Supervision

(1) A Principal Contractor must—

- Provide and demonstrate to the Client a suitable, sufficiently documented and coherent site-specific Health and Safety Plan, based on the Client's documented Health and Safety Specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the Principal Contractor as work progresses;
- Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be made available on request to an inspector, the Client, the Client's Agent or a Contractor; and
- On appointing any other Contractor, in order to ensure compliance with the provisions of the Act—
 - Provide Contractors who are tendering to perform construction work for the Principal Contractor, with the relevant sections of the Health and Safety Specifications contemplated in regulation 5(1)(b) pertaining to the construction work which has to be performed;
 - Ensure that potential Contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
 - Ensure that no Contractor is appointed to perform construction work unless the Principal Contractor is reasonably satisfied that the Contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;
 - Ensure prior to work commencing on the site that every Contractor is registered and in good standing with the Compensation Fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
 - Appoint each Contractor in writing for the part of the project on the construction site;
 - Take reasonable steps to ensure that each Contractor's health and safety plan contemplated in sub-regulation (2)(a) is implemented and maintained on the construction site;
 - Ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the Principal Contractor and any Contractor, but at least once every 30 days;
 - Stop any Contractor from executing construction work which is not in accordance with the Client's Health and Safety Specification and the Principal Contractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons;
 - Where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the Contractor to execute the work safely; and
 - Discuss and negotiate with the Contractor the contents of the Health and Safety Plan contemplated in sub-regulation (2)(a), and must thereafter finally approve that plan for implementation;
 - Ensure that a copy of his or her health and safety plan contemplated in paragraph (a), as well as the Contractor's Health and Safety Plan contemplated in sub-regulation (2)(a), is available on request to an employee, an inspector, a Contractor, the Client or the Client's Agent;
 - Hand over a consolidated health and safety file to the Client upon completion of the construction work and must, in addition to the documentation referred to in sub-regulation (2)(b), include a record of all drawings, designs, materials used and other similar

information concerning the completed structure;

- In addition to the documentation required in the health and safety file in terms of paragraph (c)(v) and sub-regulation (2)(b), include and make available a comprehensive and updated list of all the Contractors on site accountable to the Principal Contractor, the agreements between the parties and the type of work being done; and
- Ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

(2) A Contractor must prior to performing any construction work —

- Provide and demonstrate to the Principal Contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the Client's Health and Safety Specification contemplated in regulation 5(1)(b) and provided by the Principal Contractor in terms of sub-regulation (1)(a), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the Contractor as work progresses;
- Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, and which must be made available on request to an inspector, the Client, the Client's Agent or the Principal Contractor;
- Before appointing another Contractor to perform construction work, be reasonably satisfied that the Contractor that he or she intends to appoint has the necessary competencies and resources to perform the construction work safely;
- Co-operate with the Principal Contractor as far as is necessary to enable each of them to comply with the provisions of the Act; and
- As far as is reasonably practicable, promptly provide the Principal Contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the Health and Safety Plan.
- (3) Where a Contractor appoints another Contractor to perform construction work, the duties determined in sub-regulation (1)(b) to (g) that apply to the Principal Contractor apply to the Contractor as if he or she were the Principal Contractor.
- A Contractor must take reasonable steps to ensure co-operation between all Contractors appointed by the Principal Contractor to enable each of those Contractors to comply with these Regulations.
- No Contractor may allow or permit any employee or person to enter any site, unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.
- A Contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.
- A Contractor must at all times keep on his or her construction site records of the health and safety induction training contemplated in sub-regulation (6) and such records must be made available on request to an inspector, the Client, the Client's Agent or the Principal Contractor;.
- A Contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.
- Description of the objective / scope of work
- Sequence of work / method statements

- Hazard identification & risk assessment (prior to commencement of work)
- Precautionary / preventative measures that are to be taken.
- Identification of sensitive features that may be impacted upon by the project.

5.2 Management and Supervision

- (1) A Principal Contractor must in writing appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the Principal Contractor.
- (2) A Principal Contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.
- (3) Where the construction manager has not appointed assistant construction managers as contemplated in sub-regulation (2), or, in the opinion of an inspector, a sufficient number of such assistant construction managers have not been appointed, that inspector must direct the construction manager in writing to appoint the number of assistant construction managers indicated by the inspector, and those assistant construction managers must be regarded as having been appointed under sub-regulation (2).
- (4) No construction manager appointed under sub-regulation (1) may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.
- (5) A Contractor must, after consultation with the Client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive.
- (6) No Contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the Contractor
- (7) A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site.
- (8) A Contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor contemplated in sub-regulation (7), and every such employee has, to the extent clearly defined by the Contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of any such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties in terms of this regulation.

- (9) Where the Contractor has not appointed an employee as contemplated in sub-regulation (8), or, in the opinion of an inspector, a sufficient number of such employees have not been appointed, that inspector must instruct the employer to appoint the number of employees indicated by the inspector, and those employees must be regarded as having been appointed under sub-regulation (8).
- (10) No construction supervisor appointed under sub-regulation (7) may supervise any construction work on or in any construction site other than the site in respect of which he or she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated under sub-regulation (7) on all the relevant construction sites, the appointed construction supervisor may supervise more than one site.

5.3 Principal Contractor and Contractor HSE Practitioner

The appointment of a full time / part-time Health and Safety Officer will be required for the duration of the contracted work. It is incumbent on the Principal Contractor during the tender process to evaluate the scope and nature of risk related to the work in order to objectively determine the need for such an appointment. (The Client reserves the right to insist on the appointment of a Health and Safety Officer where it deems the exposure to be of such a nature that a dedicated Health and Safety Officer is required). The Contractors Health and Safety Officer shall assist and support the Contractors Construction Manager to ensure that the Contractors Health and Safety responsibilities are fulfilled and compliance to the Health and Safety specifications and Health and Safety plan are met.

5.4 Principal and Contractor employees on the Project

The Principal Contractor is responsible for adequately informing his employees and Contractors of all relevant information with regard to the Client issued Health and Safety specifications and the Principal Contractors Health and Safety plan.

Employees are responsible for their own health and safety and that of their co-workers in their area. They must be made aware of their responsibilities during induction and awareness sessions some of which are:

- Familiarizing themselves with their workplaces and health and safety procedures.
- Working in a manner that does not endanger them or cause harm to others.
- Keeping their work area tidy.
- Reporting all incidents / accidents and near misses.
- Protecting fellow workers from injury.
- Reporting unsafe acts and unsafe conditions.
- Reporting any situation that may become dangerous.
- Carrying out lawful orders and obeying health and safety rules.
- Ensuring as far as possible no interaction with the public.

Every employee must undergo site induction provided by the Principal Contractor before commencement of the contracted work. Only once this induction has been received, will each employee receive a site access permit. The Client will provide induction to all professional team members as well as Principal Contractor management pertaining to the management of safety on the site.

It must be highlighted to all employees, that anyone who becomes aware of any person disregarding a safety notice, instruction or regulation shall immediately report this to the person concerned. If the person persists, stop the person from working and report the matter to the Project Manager and the Principal Contractor Supervisor immediately.

No person shall damage, alter, remove, render ineffective, or interfere with anything that has been provided for the protection of the site, or for the health and safety of persons.

No person under the influence of alcohol, drugs or medication (in state of intoxication) or any other condition that may render him incapable of controlling himself or of other persons under his charge shall be allowed to enter the site.

All safety and warning signs must be obeyed at all times.

Entering or leaving the Site may only be done via the official designated walkways, do not take short cuts. Follow designated walkways to and from your work place. Walk, do not run, and be alert for motor vehicle traffic and mobile equipment.

All employees must adhere to the HSE and other site-specific rules which may be issued by the Client or his designated Agent.

If any of the Principal Contractor's employees or his Sub-contractor's employees have transgressed any of the requirements of the HSE Specification; HSE plan or site rules, then the employee may be removed from site and his/her site access revoked. The Principal Contractor must follow a process of disciplinary action which shall include re-training / inducting the employee (at the cost of the Principal Contractor) and provide proof thereof to the Client's site / Project Manager and only upon the satisfaction of the Client's Site / Project Manager will the employee be allowed back on site.

6. MINIMUM ADMINISTRATIVE REQUIREMENTS

6.1 Notification to Commence Construction Work (CR4)

The Principal Contractor must notify the Provincial Director of the Department of Labour in writing before construction work commences. A copy of this notification must be held in the Principal Contractor's health & safety file on site. A copy is also to be provided to the Client.

6.2 Assignment of the Principal Contractor's / Contractors' Responsible Persons to Manage Supervise Health and Safety on Site (CR8 and Section 16)

The Principal Contractor and all Contractors must make supervisory appointments as well as other relevant appointments in writing (as stipulated by the OHS Act and Construction Regulations 2014). See attached Annexure 'A' for more detail and relevant appointments.

6.3 Competence of the Principal Contractor's / Contractors' Appointed Competent Persons

The Principal Contractor's and all Contractors' competent persons for the various risk management portfolios must fulfil the criteria as stipulated under the definition of 'Competent' in accordance with the Construction Regulations (2014). It is required that Principal Contractors submit written declarations confirming the competency of all persons deployed on the project as well as the

mechanical soundness of all construction related equipment and plant.

6.4 Compensation for Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The Principal Contractor and Contractors must also hold proof of workman's compensation assurance registration in the form of a letter of good standing and forward a copy to the Principal Contractor before they begin work on site. A copy should also be available on site. No work will be permitted on the project unless these documents are in place.

6.5 Health and Safety Organogram

The Principal Contractor must prepare an organogram, outlining the site health & safety management structure and appointed competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram must be updated when there are changes in the Site Management Structure, and dated accordingly. All HSE appointments are to be indicated on the organogram, clearly identifying the individual as well as providing contact details.

6.6 Preliminary Hazard Identification and Risk Assessments (CR 9)

Every Contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, cause a Risk Assessment to be performed by a competent person, appointed in writing, and the Risk Assessment shall form part of the Health and Safety Plan and be implemented and maintained as contemplated in the Construction Regulation 9(1).

The following risk management process is to be adopted on the project:

- (1) A Contractor must, before the commencement of any construction work and during such construction work, have Risk Assessments performed by a competent person appointed in writing, which Risk Assessments form part of the health and safety plan to be applied on the site, and must include—
 - (a) The identification of the risks and hazards to which persons may be exposed to;
 - (b) An analysis and evaluation of the risks and hazards identified based on a documented method;
 - (c) A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
 - (d) A monitoring plan; and
 - (e) A review plans.
- (2) A Contractor must ensure that as far as is reasonably practicable, ergonomic related hazards are analyzed, evaluated and addressed in a Risk Assessment.
- (3) A Contractor must ensure that all employees under his or her control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and or control measures before any work commences, and thereafter at the times determined in the Risk Assessment monitoring and review plan of the relevant site.
- (4) A Principal Contractor must ensure that all Contractors are informed regarding any hazard

that is stipulated in the Risk Assessment before any work commences, and thereafter at the times that may be determined in the risk assessment monitoring and review plan of the relevant site.

- (5) A Contractor must consult with the health and safety committee or, if no health and safety committee exists, with a representative trade union or representative group of employees, on the monitoring and review of the risk assessments of the relevant site.
- (6) A Contractor must ensure that copies of the Risk Assessments of the relevant site are available on site for inspection by an inspector, the Client, the Client's Agent, any Contractor, any employee, a representative trade union, a health and safety representative or any member of the health and safety committee.
- (7) A Contractor must review the relevant Risk Assessment—
 - (a) Where changes are effected to the design and or construction that result in a change to the risk profile; or
 - (b) When an incident has occurred.

The Issue Based Risk Assessment shall include, at least:

- The identification of the risks and hazards to which persons may be exposed to
- The analysis and evaluation of the risks and hazards identified
- A documented plan of safe work procedures to mitigate, reduce or control the risks and hazards that have been identified
- A monitoring plan
- A documented review plan
- Based on the Risk Assessments, the Contractor must develop a set of site-specific OH&S rules and operating procedures that will be applied to regulate the OH&S aspects of the construction. (See annexure "B" for SWMS minimum requirements)
- A copy of the Risk Assessment must be provided to the Client for review.
- The Contractor has consulted with the Health & Safety Committee and in the absence thereof, a representative group of employees, in conducting the risk assessments, monitoring as well as during the review process.
- The Contractor will ensure that no person or employee may enter the site without undergoing comprehensive induction training (proof of which must be retained by the employee) in respect to the risks and hazards present at the time, and where required, will ensure the appropriate use of the correct PPE.
- The Principal Contractor or Contractor has ensured that all employees under his control have been informed, instructed and trained by a competent person in respect to the hazards and risks identified.
- The process as contemplated above is included in the Health & Safety Plan.
- No Generic Risk Assessments will be accepted and approved.

6.7 General Record Keeping

The Principal Contractor and all Contractors must keep and maintain Health and Safety records to demonstrate compliance with these Specifications, with the OHS Act 85/1993, and with the Construction Regulations (2014). The Principal Contractor must also ensure that all records of incidents/injuries, emergency procedures, training, planned maintenance inspections, monthly

Contractor audits, etc. are kept in the health & safety file(s) held in the site office. The Principal Contractor must ensure that every Contractor keeps its own health & safety file, maintains the file and makes it available on request (the file must include the Contractor's health & safety plan). Such Contractor safety files must be audited by the Principal Contractor.

6.8 Injury /Incident Reporting and Investigation

Injuries are to be categorized into first aid; medical; lost time injury (LTI); and fatal injuries. When reporting injuries to the Client, these categories shall be used.

The Principal Contractor must investigate all injuries, and where applicable with an Annexure 1 report being completed and filed. All Contractors must report on the 4 categories of injuries to the Principal Contractor at least monthly. Contractors must investigate injuries and incidents involving their employees and forward a copy of the annexure 1 investigation report to the Principal Contractor forthwith. The Principal Contractor must report all injuries to the Client in the form of an injury report, at least monthly. The Contractor must submit his incident reporting and investigation protocols for review by the Client.

All incidents reportable in terms of the provisions of Section 24 of the OHS Act, 1993 must be reported to the local Dept. of Labour in the prescribed manner within 14 days. (Note: No reports will be made to third parties without the Client being notified of such intentions)

(Department of Labour contact number Polokwane Office: [015 299 5000](tel:0152995000))



All Contractors must immediately report all incidents where an employee is injured on duty to the extent that he/she

- Dies
- Becomes unconscious
- Loses a limb or part of a limb
- Is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

Or where:

- A major incident occurred
- The health or safety of any person was endangered
- Where a dangerous substance was spilled
- The uncontrolled release of any substance under pressure took place
- Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- Machinery ran out of control

The Contractor is required to provide the Client with copies of all internal and external accident/incident investigation reports including the reports contemplated above within 7 days of the incident occurring

6.9 Permits and way leaves

Permits may include the following:

- Closing of public roadways and walkways
- Demolition
- Way Leaves
- Permit to work night Shift
- Hot work Permits

The Principal Contractor must manage and co-ordinate these permit procedures.

6.10 Preparation of Health & Safety Documentation (CR 7)

It is the duty of the Principal Contractor to ensure that all documentation that is required are kept or generated during the construction process and must be consolidated into one set of documents that must be handed over to the Client upon completion of the construction work. This should include instructions from the design team that will be required for the continued safe operation and maintenance of this new structure(s).

The following health and safety deliverables should be reviewed during the tender submission process:

REQUIREMENT	TIMING
H&S DELIVERABLES	
<ul style="list-style-type: none">● The Contractor must submit all deliverables as per the attached list of deliverables. These must be submitted individually under separate cover sheets for review and approval by the Client’s project manager or designate.● The submissions will be commented on and returned to the Contractor for updating and re-submission. Access to site will not be granted unless these submissions have been provisionally approved.● On approval of deliverables the Contractor may gain access to the works, but has a period of 2 weeks in which to have the submissions finally approved for construction.● If this does not occur in the 2 week period the Client reserves the right to suspend all work until such time as the Safety Agent is satisfied with all H&S submissions.	Prior to commencement with construction.

(See annexure “C” with regard to detailed compliance submissions)

6.11 Offences and Penalties

Penalties may be imposed for on-going non-compliance with the provisions of the Client’s health & safety specifications and the Principal Contractor’s Health & Safety Plan. Non-compliances noted during safety agent audits and visits will be categorized into three levels based on severity. These will be as follows:

- Life threatening situations -a prohibition notice will be issued. This activity must be seized immediately and corrective measures taken.
- Serious injury possible – a contravention notice will be issued with a time frame for compliance

stipulated. Failure to comply within the time frame may result in a financial penalty per non-compliance item per day that the non-compliance persists.

- Minor or no injury may result – an improvement notice will be issued. The corrective measures stipulated in the report / notice must be taken.

The methodology used to decide the above levels will be directly linked to the Risk Assessments of the Principal Contractor and Contractors (i.e. high, medium and low). In the absence of a Risk Assessment the decision of the Safety Agent will be final.

6.13 Principal Contractor / Contractor - Competency Assessment

In order to ensure this, the Principal Contractor must demonstrate to the Client that it has a suitable and sufficiently documented OHS Plan and that its Contractors have the necessary competencies and resources to perform the construction work safely.

The Principal Contractor and Contractors must therefore submit the following documentation for perusal and verification by the Client and Principal Contractor respectively:

- Management Structure as envisaged at tender (organogram);
- Registration certificate with the Compensation Commissioner or FEM;
- Proof of management training on the Occupational Health & Safety Act and other related training;
- Example copy of previous Safety Committee Meeting Minutes and Incident Investigation report (from a previous project);
- Any previous convictions under the OHS-Act;
- Your Company's previous two years injury claims as reported to your workman's compensation insurer;
- Your company's approach to co-ordination of health & safety – do you employ safety officers, etc.? If not, what alternative arrangements are used?

The Principal Contractor and all Trade Contractors' competent persons for the various risk management portfolios will fulfill the criteria as stipulated under the definition of 'Competent' in accordance with the Construction Regulations 2014. This will be specific to the following appointments. (Refer to annexure "D" for an outline of legal assignments)

The Principal Contractor shall ensure that all their appointees are made aware of their accountabilities & responsibilities in terms of their appointment, and to advise and assist these appointees in the execution of their duties.

Appointment letters and competency certificates which is signed by the 16.2 appointee, which refers to the relevant training certificates and proof of experience of appointees must be submitted with the Health and Safety Plan.

All minimum required training is to be provided by accredited training service providers. Where legislation requires formal certification in lieu of experience then such proof of competency is to be provided by the Contractor.

6.14 Costs for OHS -Compliance (CR 7)

All parties bidding to work on this construction project must ensure that they have made adequate

provision for the cost of complying with these specifications as well as with the OHS-Act 1993 and incorporated Regulations as a minimum requirement in their tender documentation. It must also be taken into consideration that time is money.

That implies that sufficient time must be allowed for the implementation of the minimum OHS standards. No additional claims will be entertained at a later stage if a compliance requirement was prescribed in the OHS-Act, 1993 and incorporated regulations or this specifications document. Refer to annexure "E" of this document for a breakdown of possible safety costs.

6.15 Contractors' Health & Safety Plans [Construction Regulations 7(1)]

6.15.1 Introduction:

Under the Construction Regulations (2014), the Principal Contractor is required to develop the Health and Safety Plan before work commences on site and to keep it up to date throughout the Construction Phase. The degree of detail required in the Health and Safety Plan for the Construction Phase and the time and effort in preparing it should be in proportion to the nature, size and level of Health and Safety risks involved in the project. Projects involving minimal risks will call for simple, straightforward plans. Large projects or those involving significant risks will need more detail.

All registers and Agreements with Mandatary documents must be signed before commencement on site. **Should any Contractor or Sub-Contractor not be able to comply with all the necessary site safety documentation, an independent Safety Consultant will be appointed by the Client to assist at their own cost?**

6.15.2. What should the construction Health & Safety plan cover?

The Construction Health and Safety Plan should set out the arrangement for ensuring the Health and Safety of everyone carrying out the construction work and all others who may be affected by it. The Plan must demonstrate Management's commitment to safety and must include how safety responsibilities are assigned to different roles within the organization.

6.15.3 What should be addressed as key requirements in the Construction Health & Safety Plan?

- Provide a systematic method of managing hazards according to risk priority, and must include all mobilization and site set up activities as per the Baseline Risk Assessment.
- Methodology/ Scope of Works of what work is to be undertaken on site.
- Anticipated risks and hazards and mitigating controls to be implemented to reduce the risk.
- Competency of Employees and proof of training
- Resources/ Equipment to be used on site

6.16 Communication and Management of the work

Site Safety committee meetings will be held monthly or as determined by the associated risks on site. This does not preclude the requirement that each Contractor will implement and maintain their own safety meetings where applicable.

- In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.
- Consultation with the workforce on OH&S matters will be through their Supervisors, OH&S

- Representatives, the OH&S committee and their elected Trade Union Representatives, if any.
- The Site Manager or his Site Safety Officer will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.
- A due diligence, one page report must be completed (and retained on file) by the Contractor every week after he has performed a site inspection. This document will be referenced at each formal site safety meeting and should be communicated via e mail with Vunwe sherq services.
- The Contractors will be required to conduct Toolbox Talks with their employees on a weekly basis and records of these must be kept on the OH&S File. Employees must acknowledge the receipt of Toolbox Talks which record must, likewise be kept on the OH&S File.
- The Contract Manager or suitable designate of each appointed Contractor will be required to attend all Site OH&S meetings.

7. CLIENT IDENTIFIED HAZARDS AND POTENTIALLY HAZARDOUS SITUATIONS

7.1 Client identified Hazards

7.2

The following items have been identified by the Client as potential hazards for this construction work and must be incorporated in the Contractor's site-specific Risk Assessments.

- Wind and dust. (Site is in a build up area)
- Working with, around and above other Contractors
- Working on and from scaffolding and ladders
- Working at Heights
- Edge Barricading (Deck Edges and openings)
- Roof work – structural and roof covering. Placement of roof sheeting.
- Lifting operations including mobile plant use, lifting tackle and other fixtures
- Electrical installation (temporary and permanent)
- Deep excavation
- Bulk earth work
- Slip, trip and fall
- Manual handling
- Collapsing trenches
- Electrocutation
- Moving objects
- Heat stress
- Interface with the public – roads and pavements
- Portable electrical tools and extension leads
- Explosive powered tools
- Power tools (jackhammers, core drilling, high pressure air and water jets, etc.)

7.3 Unforeseeable Hazards

The Principal Contractor must immediately notify other Contractors as well as the Client, in writing, of any hazardous or potentially hazardous situations that may arise during the performance of construction activities so that the necessary precautions may be taken.

During the course of the Project, the Client or appointed Agent may advise of any new exposures relating to change of scope or design. These will be communicated in writing.

8. SITE OPERATIONAL REQUIREMENTS

8.1 Construction Health & Safety Officer (CR8.5)

- A Contractor must, after consultation with the Client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time registered construction health and safety officer with **SACPCMP** in writing to assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive.
- No Contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint has the necessary competencies and resources to assist the Contractor to conduct at least the following duties:
- Health & safety audits and inspections including administrative and physical audits of all Contractors' health & safety plans, files and activities, and record findings in the form of audit reports to be kept in the health & safety file;
- Maintain the Principal Contractor's Health & Safety Plan and file;
- Investigate near misses, incidents and injuries;
- Co-ordinate the function of reviewing the hazard identifications and risk assessments;
- Assisting with Method Statements and checking whether the responsible persons follow the safe work procedures.

8.2 Health and Safety Representative(s) (Section 17)

The Principal Contractor and all Contractors must ensure that Health and Safety Representative(s) are appointed under consultation with the employees and trained/informed to carry out their functions. The appointments must be in writing. The Health and Safety Representatives could carry out monthly inspections, keep records and report all findings to the responsible person or safety officer forthwith and at monthly health & safety meetings. At least one Health & Safety Representative is required by all Employers. (Appoint one for the first 20 employees and an additional one for each group of up to 50 employees on sit.

8.3 Health and Safety Committees (Section 19)

The Principal Contractor must ensure that project health and safety committee meetings are held monthly with minutes kept. Meetings must be chaired by the Principal Contractor's Responsible Person [CR 8 (1)]. All Contractors' Responsible Persons and Health & Safety Representatives must attend the Principal Contractor's monthly health & safety meetings. The Principal Contractor's appointed supervisors must attend health & safety meetings.

The following topics must be tabled at meetings: management appointments; Sub-contractor legal issues; injuries and incidents; hazards and Risk Assessments (present and foreseen); method statements; planned inspections and registers/record keeping, leading and lagging indicators etc. The committee chairperson must sign off minutes.

8.4 Health and Safety Training

8.4.1 Induction

The Principal Contractor must ensure that all site personnel undergo a site-specific health & safety induction training session before any worker starts work. A record of attendance shall be kept in the health & safety file. The Principal Contractor will be required to induct all Contractors' employees. Workers must carry some sort of proof of inductions on their person.

8.4.2 Awareness

The Principal Contractor must ensure that, on site, periodic toolbox health & safety talks take place at least once every week. These talks should deal with risks relevant to the construction work at hand. Records of attendance must be kept in the health & safety file. Daily pre-task crew talks and DSTI's are to be conducted by the appointed CR 8(7) supervisors.

8.4.3 Competence

All competent persons must have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control, and carry out. This must be assessed on a regular basis e.g. training, evaluation, and periodic audits by the Client, progress meetings, etc. The Principal Contractor is responsible to ensure that competent Contractors are appointed to carry out construction work.

8.5 Health & Safety Audits, Monitoring and Reporting

A monthly compliance audit will be done by Client (Construction Regulation 5.1(O), through their appointed safety agent.

OH&S Agent will be conducting the audit to comply with Construction Regulations to ensure that the Contractor has implemented, and is maintaining the agreed and approved OH&S Plan.

The Principal Contractor is obligated to conduct monthly audits on all Contractors appointed by him and keep audit reports in its health & safety file. Contractors have to audit their sub- Contractors and keep records of these audits in *their* health & safety files, made available on request.

8.6 Emergency Procedures

The Principal Contractor must prepare a detailed Emergency Procedure / Evacuation Plan prior to commencement on site. The procedure/plan must take into consideration the risks and potential incidents posed by work to be carried out on this project.

The procedure must detail the response plan including the following key elements:

8.6.1 List of key competent personnel;

8.6.2 Details of emergency services;

8.6.3 Actions or steps to be taken in the event of the specific types of emergencies;

Emergency procedure(s) shall include, but shall not be limited to: fire; chemical spills; injury to employees; damage to material/equipment/plant; use of hazardous substances; bomb threats;

major incidents/injuries; evacuation; etc. The Principal Contractor must advise the Client in writing forthwith, of any emergency situations, together with a record of action taken/action to be taken. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and made available to site personnel.

8.7 First Aid Boxes and First Aid Equipment (GSR 3)

The Principal Contractor and all Contractors shall appoint First Aider(s) in writing. The Principal Contractor must appoint at least one First Aider who must be certificated. Copies of valid certificates are to be kept on site. The Principal Contractor must provide at least 1 (one) first aid box, adequately stocked at all times. All Contractors with more than 5 employees shall supply their own first aid box. Contractors with more than 10 employees must have their own trained, certified first aider on site at all times.

The Contingency Plan of the Contractor must include the arrangements for speedily and promptly transporting injured persons to a medical facility or securing emergency medical help to persons that may require it.

8.8 Personal Protective Equipment (PPE) and Clothing

The Principal Contractor and Contractors must ensure that all site workers are issued with and wear the appropriate PPE as indicated in their Risk Assessments.

The Principal Contractor and Contractors must make provision and keep adequate quantities of SABS approved PPE on site at all times according to their Risk Assessments. The above procedure applies to Contractors and their Sub-contractors, as they are all Employers in their own right and must therefore supply their own PPE.

Labour only Contractors appointed by the Principal Contractor become the responsibility of the Principal Contractor unless otherwise instructed. The Contractor must compile a detailed PPE matrix for the various disciplines and tasks.

8.9 Occupational Health and Safety (OHS) Signage

The Principal Contractor must provide adequate on-site OHS signage. Including but not limited to: 'no unauthorized entry', 'report to site office', direction to site office, 'beware of overhead work', 'hard hat area' – to be posted up at all site entrances. Signage must also be posted up on site in strategic locations e.g. access routes, stairways, entrances to structures and buildings, scaffolding, and other potential risk areas/operations such as exposed edges and openings and trenches/excavations where persons are at work. Health & safety signage must be well maintained including weekly inspections, cleaning, replacement and repair.

8.10 Public and Site Visitor Health & Safety

Public walkways and roadways must be kept clean and free of excessive construction materials so as to prevent a negative impact on the public. Roadways and walkways will have to be cleaned on a regular basis – daily inspections to be conducted by the Principal Contractor with action to be taken without delay.

Site visitors must be briefed on the hazards they may be exposed to as well as what measures are in place or should be taken to control these hazards. As per the Construction Regulations, a record

of these 'inductions' must be kept on site. It is advised that a visitor book with a site rules leaflet be kept at the gate or at reception/site office and all visitors to be directed to such point where they must read through the site safety information and sign the visitor book. All hoarding lay out drawing are to be strictly adhered to.

8.11 Minimum Environmental Requirements

All Contractors shall, comply with the following environmental protection procedures and requirements:

8.11.1 Water Use and Disposal:

- 8.11.1.1 No water hoses may be used on site unless they are fitted with nozzles that can prevent flow when not being used. Leaks in hoses are not permitted.
- 8.11.1.2 Water from fire hydrants may not be used without prior authorization from the Client.
- 8.11.1.3 Contaminated water may not be disposed of into the effluent drainage system without the prior authorization of the Engineer.
- 8.11.1.4 Contaminated water may not be discharged into storm water drains under any circumstances.
- 8.11.1.5 Contaminated water that cannot be disposed of via the site effluent system must be removed from site by a recognized waste disposal company and disposed of as per relevant legislation.

8.11.1 Storm Water Drains:

- 8.11.1.1 Nothing other than clean uncontaminated water may be discharged into the site storm water drains.
- 8.11.1.2 In the event of pollutants accidentally entering the storm water drains, the Supervisor shall be notified immediately and the removal of the contaminants from the storm water system and their proper disposal shall be commenced without delay.
- 8.11.1.3 In the event that contamination has reached the outside of the site, the appropriate local authorities shall be notified and full scale cleanup operations shall be commenced immediately.

8.11.2 Sewerage System

- 8.11.2.1 Nothing shall be discharged into the site sewerage systems except domestic waste water.
- 8.11.2.2 Authorization shall be obtained from the site manager before connecting any temporary toilet or ablution facilities into the site sewerage system.

8.11.3 Solid Waste Disposal

- 8.11.3.1 Contractors shall be responsible for the safe and proper disposal of solid waste generated by their activities.
- 8.11.3.2 Hazardous waste material shall only be disposed of via approved and recognized

waste disposal companies. Disposal certificates shall be obtained and copies kept in the safety file.

8.11.4 Discharges to Atmosphere

8.11.4.1 Nothing will be burnt on site.

8.11.4.2 Any process which causes dust will be assessed prior to the work starting and authorization to work obtained before starting work.

8.11.5 Reporting of Environmental Incidents

8.11.5.1 Environmental Incidents shall be reported without delay and at the latest before the end of the shift during which the incident occurred.

8.11.5.2 Spillages or incidents that could cause pollution outside of the boundaries of site shall be reported immediately in order for prompt preventative measures to prevent or reduce contamination of the environment.

8.12 Access to Site

The Principal Contractor or Site Manager will establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees will not be allowed on site unaccompanied.

Access to site will be restricted to persons working on site that attended a site specific safety induction BEFORE starting work on site. Safety induction cards must be issued and carried by all persons at all times while on site. Visitors to site must be inducted and accompanied by a safety representative during their visit on site.

8.12.1 Security on Site

Both the Client and the Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities. The site must be suitably hoarded at all times with a limited number of access points which must be controlled to ensure safe access and egress.

The access points must be kept closed and must have the adequate notices displayed.

8.13 Hours of Work

Weekend and after-hours work may only be done with the prior approval of the Clients Agent. Approval shall be subject to:

8.13.1 Competent supervision being on site throughout the duration of the weekend/after-hours work.

8.13.2 The Contractor having a demonstrated history of adequate, problem free control and supervision of the work during normal working hours.

8.13.3 Have fatigue management plan in place

8.14 Lighting

The Contractor is to ensure that wherever work is performed where the lighting conditions are less than the minimum requirement as defined in Environmental Regulation 3 and relative schedules, that this is supplemented with additional lighting capacity to ensure that all works contemplated can be conducted safely. Portable Lights must be fitted with a robust non- hygroscopic non-conducting handle and the lamp must be protected by a robust and weather proof guard. The cable lead-in must withstand rough handling. Registers must be maintained for each piece of equipment and findings of regular inspections must be entered into a register. Inspections must concentrate on plug, cord, switch and any obvious faults. When used in wet/damp conditions, it must be protected as for portable electrical tools, above.

9 PHYSICAL REQUIREMENTS

9.1 Erection of Hoarding

- All hoarding operations on site are to comply with the issued drawings.
- A detailed hoarding maintenance plan is to be drafted and submitted for approval.

9.2 Traffic Diversions

Provision by means of a method statement must be made for any traffic diversions to conduct your construction activities as well as any loading and off-loading of materials and waste.

The method statement must include a drawing indicating traffic signage and the like. Please refer to paragraph 4.9 – Permits, of this specification. Permission must be obtained from the local Metropolitan Council’s Traffic Department to use the site entrance for heavy vehicles on site.

9.3 Edge Protection, Barricading and Penetrations (CR 10)

A Contractor must ensure that—

- All unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings;
- No person is required to work in a fall risk position, unless such work is performed safely as contemplated in sub-regulation (2);
- A detailed Fall Rescue Plan will be drafted and implemented on site.
- The above-mentioned plan will be demonstrated on instruction of the Clients Agent.

Note: Danger tape does not represent barricading.

9.4 Housekeeping (CR 27)

The Contractor to ensure that:

- Housekeeping is continuously implemented
- Scrap, waste & debris are removed regularly
- Materials placed for use are placed safely and not allowed to accumulate or cause obstruction to free movement of pedestrian and vehicle traffic

- Waste & debris not to be removed by disposing from heights, but by chute or crane
- Where practicable, construction sites are fenced off to prevent access of unauthorised persons
- An unimpeded work space is maintained for every employee
- Every workplace is kept clean, orderly and free of tools etc. that are not required for the work being done.
- As far as is practicable, every floor, walkway, stair, passage and gangway is kept in good state of repair, slip and trip, skid-free and free of obstruction, waste and materials
- The walls and roof of every indoor workplace is sound and leak-free
- Openings in floors, hatchways, stairways and open sides of floors or buildings are barricaded, fences, boarded over or provided with protection to prevent persons from falling.

9.5 Stacking & Storage (Construction Regulation 28)

- The Contractor/Employer must ensure that a competent person is appointed in writing to supervise all stacking and storage on a construction site.
- Adequate storage areas are provided and demarcated
- The base of any stack is level and capable of sustaining the weight exerted on it by the stack
- The items in the lower layers can support the weight exerted by the top layers.
- Cartons and other containers that may become unstable due to wet conditions are kept dry
- Pallets and containers are in good condition and no material is allowed to spill out.
- The height of any stack does not exceed 3X the base unless stepped back at least half the depth of a single container at least every fifth tier or the approval of an inspector has been obtained to build the stacks higher with the aid of an appropriate machine.
- The articles that make up a single tier are consistently of the same size, shape and mass
- Structures for supporting stacks are structurally sound and able to support the mass of the stack
- No articles are removed from the bottom of the stack, but from the top tier first
- anybody climbing onto a stack can and does so safely and that the stack is sufficiently stable to support him/her
- Stacks that are in danger of collapsing are broken down and restacked
- Stability of stacks are not threatened by vehicles or other moving plant and machinery
- Stacks are built in a header and stretcher fashion and that corners are securely bonded
- Persons climbing onto stacks do not approach unguarded moving machinery or electrical installations

9.6 Fire Extinguishers and Fire Fighting Equipment (CR 29)

The Principal Contractor and relevant Contractors shall provide adequate, regularly serviced firefighting equipment located at strategic points on site, specific to the classes of fire likely to occur. The appropriate notices and signs must be posted up as required. A minimum of four 9kg dry chemical powder fire extinguishers must be available in and around the site office establishment and stores. Wherever 'hot work' is taking place, additional fire extinguishers must be on hand. Contractors are responsible for ensuring compliance with hot work procedures and must be in possession of method statements detailing the safe working procedures. 'Hot work' includes all work that generates a spark or flame and may therefore result in a fire.

9.7 Fall Protection – Fall Risk Positions (Construction regulation 10.)

A Contractor must—

- Designate a competent person to be responsible for the preparation of a fall protection plan; ensure that the fall protection plan contemplated in paragraph (a) is implemented, amended where and when necessary and maintained as required; and take steps to ensure continued adherence to the fall protection plan.
- A fall protection plan contemplated in sub regulation (1), must include—
- A Risk Assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location;
- The processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;
- A programme for the training of employees working from a fall risk position and the records thereof;
- The procedure addressing the inspection, testing and maintenance of all fall protection equipment; and
- A rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

A Contractor must ensure that a construction manager appointed under regulation 8(1) is in possession of the most recently updated version of the Fall Protection Plan.

Fall prevention and fall arrest equipment are —

- Approved as suitable and of sufficient strength for the purpose for which they are being used, having regard to the work being carried out and the load, including any person, they are intended to bear; and
- Securely attached to a structure or plant, and the structure or plant and the means of attachment thereto is suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and any person who could fall; and
- Fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

9.8 Scaffolding (CR 16 / SANS 10085 - 1)

The Principal Contractor must ensure that all scaffolding operations are carried out under the supervision of a competent person and that all erectors, team leaders and inspectors are competent to carry out their work. The Principal Contractor must ensure that scaffolding when used and erected, complies with the safety standards as per SANS 10085-1:2004

9.9 Roof work

Where roof work is being performed on a construction site, the Contractor must ensure that; in addition to the requirements set out in sub-regulations (2) and (4), it is indicated in the fall protection plan that—

- The roof work has been properly planned;
- The roof erectors are competent to carry out the work;
- No employee is permitted to work on roofs during inclement weather conditions or if any conditions are hazardous to the health and safety of the employee;

- All covers to openings and fragile material are of sufficient strength to withstand any imposed loads;
- Suitable and sufficient platforms, coverings or other similar means of support have been provided to be used in such a way that the weight of any person passing across or working on or from fragile material is supported; and
- Suitable and sufficient guard-rails, barriers and toe-boards or other similar means of protection prevent, as far as is reasonably practicable, the fall of any person, material or equipment.
- That no work is carried out during inclement weather (Strong wind and rain)
- What safety measures will be implemented, to ensure the safety of roof workers as well as persons working below the roof work (due to removal/placement of roof tiles)

9.10 Severe Weather Plan

- 9.10.1 When high wind creates a hazard to craftsmen or work being performed, i.e., instability in elevated areas, limited visibility due to dust or particles in the air, unmanageable materials, etc., supervision will stop work activities, re-assign work and area, properly store and secure material which might blow away, injure or damage, lower/tie down crane booms and obtain further instruction from Site Management.
- 9.10.2 When rain creates a hazard to craftsmen on work being performed, i.e., un-stable footing conditions due to slippery structural steel, muddy and flooded work environments, unstable trenches or excavations, poor visibility due to rain or eye protection, supervision will stop specific work due to hazard, re-assign work duties and/or areas, and obtain further instructions from Project Management.
- 9.10.3 All scaffolding equipment and lifting equipment to be inspected and proclaimed safe to use or rectified as to be safe to use after any inclement weather. Signage must be posted to indicate the status of the scaffolding.

9.11 Structures (Construction Regulation 11)

The Contractor will ensure that in terms of the Construction Regulations

- (1) A Contractor must ensure that—
- (a) All reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work;
 - (b) No structure or part of a structure is loaded in a manner which would render it unsafe; and
 - (c) All drawings pertaining to the design of the relevant structure are kept on site and are available on request to an inspector, other Contractors, the Client and the Client's Agent or employee.
- (2) An owner of a structure must ensure that—
- (a) Inspections of that structure are carried out periodically by competent persons in order to render the structure safe for continued use;
 - (b) That the inspections contemplated in paragraph (a) are carried out at least once every six months for the first two years and thereafter yearly;
 - (c) The structure is maintained in such a manner that it remains safe for continued use;
 - (d) The records of inspections and maintenance are kept and made available on request to an inspector.

That the structure on/in, which works, are to be performed has been inspected by a certified structural engineer declaring the structure to be safe for construction, demolition or renovations work processes.

Steps are taken to ensure that no structure becomes unstable or poses a threat of collapse due to demolition and construction work being performed on it, or in the vicinity of it.

No structure is overloaded to the extent where it becomes unsafe

He/she has received from the designer the following information:

- Information on known or anticipated hazards relating to the construction/demolition work and the relevant information required for the safe execution of the construction/demolition work
- A geo-scientific report (where applicable)
- The loading the structure is designed to bear
- The methods and sequence of the construction/demolition process
- All drawings pertaining to the design are on site and available for inspection
- The structural engineer shall carry out inspections at appropriate and sufficient intervals of the construction work involving the design of the relevant structure to ensure compliance with the design and record the results of these inspections in writing. These records shall be maintained on the relevant site safety files as per Construction regulation 11(2)(d).

10 PLANT, MACHINERY AND EQUIPMENT

10.1 Construction Vehicles & Mobile Plant (CR 23)

“Construction Plant” includes all types of plant including but not limited to, cranes, piling rigs, excavators, construction vehicles, compaction plant, batch plants and lifting equipment.

The Principal Contractor must ensure that such plant complies with the requirements of the OHS Act, Construction Regulations 2014 and any manufacturer’s specifications. The Principal Contractor and all relevant Contractors must inspect and keep records of inspections on construction vehicles and mobile plant used on site. Only authorised/competent persons in the possession of the necessary training certificates and in possession of a certificate of medical fitness may operate construction vehicles and mobile plant. Appropriate PPE and clothing must be provided and maintained in good condition at all times. Reverse alarms must be installed on construction vehicles i.e. trucks, digger loaders, etc. Vehicles and pedestrian traffic must be safely separated, preventing any unnecessary interfacing.

All construction vehicles and mobile plant has to be tagged and a full-service history of these vehicles and plant must be available on site.

Any vehicle or mobile plant using any public road must be roadworthy and carry a certificate proving this, likewise any operator of such construction vehicle or mobile plant will have to carry the necessary driver’s license.

10.2. Bulk Earthworks and the Haulage of ground

Site preparation for earthworks shall be designed, planned and executed in accordance with engineers’ design.

The effect of earthworks on neighbouring structures, services, etc., shall be analysed (for both short- and long-term effects) and detrimental effects shall be avoided or appropriate measures taken to safeguard the integrity of the item in question. Similarly, the effects of dewatering or disturbance of the existing geohydrological conditions as a result of earthworks on neighbouring structures, services, etc., shall be taken into account.

Examples are:

- Change in horizontal earth pressure on foundations (especially piled foundations) may turn out to be unacceptable
- Damage to foundations and structures as a result of differential settlements caused by lowering and raising of ground water level, placement of fill or other surcharge excavation and horizontal soil movement
- Damage to foundations and structures by vibrations caused by earth moving equipment and heavy traffic.
- Care shall be taken in removing/planting trees and shrubs which could affect the water table, which in turn may affect adjacent structures.

10.3 Pressure Equipment and Gas Bottles (PE Regulations and CR 23)

The Principal Contractor and all relevant Contractors shall comply with the Pressure Equipment Regulations, including:

- Providing competency and awareness training to the operators/users;
- Providing the relevant PPE and clothing;
- Inspect equipment regularly (every month) and keep records of inspections;
- Providing appropriate firefighting equipment (Fire Extinguishers) on hand;
- Oxygen and acetylene bottles must be secured in an upright position, must not show signs of corrosion or damage and must have flash back arrestors fitted on both bottle and torch.

10.4 Hired Plant and Machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use and complies with the minimum legislated requirements. The necessary requirements as stipulated by the OHS Act and Construction Regulations 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.

Any load test requirements and inspections in terms of legislation must be complied with and copies of load test certificates and inspections must be kept in the health & safety file. All relevant Contractors must ensure the same.

10.5 Formwork and Support Work

- The Principal/sub- Contractor to ensure that all form- & support work operations are carried out under the supervision of a competent person who has been appointed in writing.
- The Principal/Sub-I Contractor to ensure that all form / support work drawings pertaining to their design is kept on site and are available if / when requested.
- The Principal/Sub- Contractor to ensure that all form /support work structures are inspected by a

competent person (appointed in writing), immediately before, during & after the placement of concrete and the result of such inspection recorded in a register.

- The Principal /Sub-Contractor to ensure that form- / support work is erected in such a way that on completion of the deck, a solid handrail is also in place for the safety of persons who has to carry out work on the deck. I.e. steel fixers etc.
- Equipment and material should be handled and transported in such a manner that noise is limited as much as possible i.e. the throwing of equipment from heights will not be tolerated

10.6 Lifting Machines, Tackle and Lifting Operations/ Tower Cranes (DMR 18 / CR 22)

The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle are inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (Regulation 22).

There must be a competent lifting machines inspector (registered with the Department of Labour, Gazette number 27305) and a competent lifting tackle inspector who must inspect the equipment, taking into account that:

- All lifting machinery and tackle has a safe working load clearly indicated;
- Regular inspection and servicing is carried out (3-monthly inspections and records for tackle and 6-monthly inspections and records for lifting machines);
- Records are kept of inspections and of service certificates;
- There is proper supervision in terms of guiding the loads that includes a trained banks man to direct lifting operations and check lifting tackle and attachments daily;
- Rigging of loads to be done in accordance with acceptable safe work practices;
- Tower crane bases have been designed and finally approved by an engineer before loading such base;
- Annual load test certificates for lifting machines are in place;
- Tower cranes are fitted with wind speed meters and audible alarm/warning lights, crane hooters, and that the crane's load chart is posted up in the crane cab;
- The operators are certified to operate the specific machine (valid certificate to be on site);
- The operators are physically and psychologically fit to work and are in possession of a medical certificate of fitness that is to be available on site.

The Principal Contractor must ensure that safe lifting operations are adhered to. This must include the following:

- Pallets of bricks being lifted by a tower crane or mobile crane may only be lifted when secured in a brick cage or brick net, securing the entire load of bricks to the crane hook;
- Mortar bins, waste bins and any other receptacle must be deemed to be a lifting attachment and must be designed to carry the required load. Such attachments must be on register and inspected every 3 months by the competent lifting tackle inspector;
- Temporary Works may only be lifted by using purpose designed and manufactured lifting tackle – eight-gauge wire and the like is prohibited;
- A competent banks man must be in control of all rigging, slinging and lifting operations and must wear a high visibility vest, be in possession of a two-way radio and make use of a whistle, warning persons of overhead loads. The crane operator may only take commands and signals from the designated bank men;
- Guide ropes (tag lines) must be used when lifting large shutters, long bundles of re-bar and other similar loads. This must be detailed in the Principal Contractor's and Contractors' fall prevention plans.

- Lifting operations must be re-evaluated once wind speeds reach 40 km/h unless otherwise specified by the lifting machine manufacturer.

10.7 Ladders (GSR 13)

The Principal Contractor must ensure that all ladders are inspected daily with monthly records kept; in good safe working order; the correct height for the task; extend at least 1m above the landing; fastened and secured; and at a safe angle. Stepladders must be safe for use, must be the correct height for the task and the top two rungs may not be used. Records of inspections must be kept in a register on site. Contractors using their own ladders must ensure the same.

10.8 Driven Machinery

The Principal Contractor and relevant Contractors must ensure compliance with the Driven Machinery Regulations, which includes carrying out risk assessments on the machines, inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE and relevant clothing, and training those who use machinery.

10.9 Electrical Installations and Portable Electrical Tools (CR 24)

The Client will ensure as far as possible that the Principal Contractor is made aware of the positions of all electrical power lines. The Principal Contractor must notify the Client should it not be sure of the location of any electrical power lines. The Principal Contractor must comply with the Electrical Installation Regulations, the Electrical Machinery Regulations and the Construction Regulations (CR 24).

The Principal Contractor must keep a copy of the Certificate of Compliance (COC) for its electrical power supply. A revised COC is required whenever the installation is altered or changed in any way. All temporary electrical installations must be inspected at least weekly by a competent person appointed in writing.

Portable electrical tools and equipment must be visually inspected daily. Records of inspections must be kept on site (monthly inspection records to be kept after a competent inspector has carried out the monthly check).

10.10 Electrical & Mechanical Lockout

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage to people and equipment as far as is reasonably practicable.

Physical/mechanical lock-out systems shall be part of the safety system and included in training. Lockouts shall be tagged and the system tested before commencing with any work or repairs.

10.11 Cantilever Loading Platforms

Should these platforms be used, they must carry a design drawing issued by a competent person

indicating the maximum safe workload and the erection and maintenance procedures. The platform must be complete with guardrails and toe boards and must carry a notice indicating the maximum safe workload. Access routes under the loading platforms must be diverted and persons must be protected from the potential material and objects falling. These platforms must be placed on a register and inspected on a weekly basis.

10.12 Waste Chutes

The disposal of rubble and other waste from elevated positions may only be conducted under controlled conditions. Waste chutes must be secured to a scaffold structure, which must in turn be secured to the main building. A person must be designated to take control of waste chute operations, which must include the inspection of the chute on a daily basis. Waste must discharge into an enclosed area (ready fence panels to be used), eliminating the risk of persons being struck by waste material.

10.13 Explosive Actuated Fastening Devices (CR 21)

- (1) No Contractor may use or permit any person to use an explosive actuated fastening device, unless—
- The user is provided with and uses suitable protective equipment;
 - The user is trained in the operation, maintenance and use of such a device;
 - The explosive actuated fastening device is provided with a protective guard around the muzzle end, which effectively confines any flying fragments or particles; and
 - The firing mechanism is so designed that the explosive actuated fastening device, will not function unless —
 - It is held against the surface with a force of at least twice its weight; and
 - The angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle.

A Contractor must ensure that —

- 10.13.1 Only cartridges suited for the relevant explosive actuated fastening device, and the work to be performed, are used;
- 10.13.2 An explosive actuated fastening device is cleaned and examined daily before use and as often as may be necessary for its safe operation by a competent person who has been appointed for that purpose;
- 10.13.3 The safety devices of an explosive actuated fastening device are in good working order prior to use;
- 10.13.4 When not in use, an explosive actuated fastening device and its cartridges are locked up in a safe place, which is inaccessible to unauthorized persons;
- 10.13.5 An explosive actuated fastening device is not stored in a loaded condition;
- 10.13.6 A warning notice is displayed in a conspicuous manner in the immediate vicinity wherever an explosive actuated fastening device is used; and
- 10.13.7 The issuing and collection of cartridges and nails or studs of an explosive actuated fastening device are—
- 10.13.7.1 Controlled and done in writing by a person having been appointed in writing for that purpose; and
- 10.13.7.2 Recorded in a register by a competent person and that the recipient has accordingly signed for the receipt thereof as well as the returning of any spent and unspent cartridges.

11. OCCUPATIONAL HEALTH

11.1 Industrial Hygiene (exposure to physical and chemical stress factors)

Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and all Contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, and adsorption through the skin of hazardous chemical substances.

11.2 Noise Induced Hearing Loss (GNR 307 7th March 2003) refers

Occupational noise emitted by construction machinery and power tools must be controlled as far as possible by implementing engineering solutions such as noise dampening, regular maintenance, servicing and inspection, screening off the noise, and reducing the number of persons exposed. It is generally accepted that all employees on a construction site will be exposed to varying degrees of noise.

In view of this, the Contractor shall ensure full compliance with the above-mentioned regulation; furthermore, provide proof of the relative management process. The Contractor is advised to pay particular attention to section 12 of the "Noise-Induced Hearing Loss Regulation"

11.3 Ergonomics

Ergonomics is the study of how workers relate to their workstations. We advise the Principal Contractor and Contractors to take this into consideration when conducting risk assessments, thereby improving the worker-task relationship, which will in turn improve productivity and reduce chronic conditions such as back strains, joint problems and mental fatigue, amongst others.

11.4 Hazardous Chemical Substances (HCS)

The Principal Contractor must ensure that the use, transport, and storage of HCS are carried out as prescribed in the HCS Regulations. The Principal Contractor and Contractors must ensure that all hazardous chemicals on site have Material Safety Data Sheets (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals.

The First Aiders must be made aware of the MSDS's and how to treat HCS incidents appropriately. Copies of the MSDS's must be kept in the first aid box and in the store. All containers must be clearly labeled. Flammable substances must be stored separately, away from other materials, and in a well-ventilated area (appropriate cross ventilation). A competent person should be appointed to be in control of this portfolio. Fuel storage tanks must conform to the general environmental legislation and Environmental Management Plan. The necessary safety signage must to be posted up on the tanks – 'no naked flames', 'no smoking'. Two 9kg DCP fire extinguishers must be placed near to fuel tanks, but not within 5m of the tanks. These extinguishers are over and above the minimum four required for the offices and stores.

11.5 Construction Employees' Facilities (CR 30)

The Principal Contractor must supply sufficient toilets (1 toilet per 30 workers), clean, lockable

changing facilities, hand washing facilities, soap, toilet paper, and hand drying material. Waste bins must be strategically placed around site and emptied regularly. Workers must not be exposed to hazardous materials/substances while eating and must be provided with adequate, sheltered eating areas complete with benches and tables. Stores may not double up a change rooms or mess areas.

11.6 Alcohol and other Drugs

No alcohol and drugs will be allowed on site. No person may be under the influence of alcohol or any drug while on the construction site. Any person on prescription medication must inform his/her superior, who shall in turn report this to the Principal Contractor forthwith. Any person suffering from any illness/condition that may have a negative effect on his/her /anyone else's health or safety performance must report this to his/her superior. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately.

11.7 Reporting on occupational health issues

As per the incident reporting and investigation requirements, it is essential that the Contractor advise the Client on any condition or occurrence where the health of any worker has been affected. Where an occupational health concern has been raised such incident is to be investigated as any other incident.

11.8 Occupational health medicals

Although not a requirement, Contractors are advised to consider the possibility of providing for both entry and exit medicals for all employees. It is however the responsibility of the Principal Contractor to ensure that where legislation requires a medical fitness certificate that such medicals are conducted and records kept in the site safety file. Medicals must be issued as per Annexure 3 document.

12. ANNEXURES

- Annexure A - List of possible legal appointments and assignments
- Annexure B - Safe Work Method Statements, minimum requirement
- Annexure C - Compliance submissions in terms of the Specification
- Annexure D - Sample site safety file index

Annexure A - Assignment of responsible persons

The Principal Contractor must make all management appointments. Below is a list of possible appointments for this project. (Further appointments could become necessary as the project progresses).

No	OHS Ref.	Act	Appointment	Name of Appointee
1	Section 16		Overall Authority and Accountability	
2	Section 16(2)		Assignment of Duties	
3	CR 8(1)		Construction Manager	
4	CR 8(2)		Assistant Construction Manager	
5	CR 8(7)		Construction Supervisor	
6	CR 8(8)		Assistant Construction Supervisor	
7	GMR 2(1)		Supervision of Machinery (not for construction sites)	
8	Section 17		Health and Safety Representative	
9	CR 16(2)		Scaffold Erector, Inspector (separate appointments)	
10	CR 13(1)		Excavation Inspector	
11	GSR 3(4)		First Aiders	
12	CR 29(h)		Fire Equipment Inspector	
13	EMR 10(4)		Portable Electrical Tool Inspector	
14	CR 19(8)(a)		Materials Hoist Inspector	
15	DMR 18(5)		Lifting Machinery and Equipment Inspector	
16	DMR 18(6)		Lifting Tackle Inspector	
17	GSR 13(a)		Ladder Inspector	
18	HCS Reg		Hazardous Chemical Substances Inspector	
19	CR 21(2)(b)		Explosive Actuated Fastening Device Inspector	
20	GSR 3		Emergency Procedure Coordinator	
23	CR 23(j)		Construction Vehicle and Mobile Plant Inspector	
24	CR24(e)		Electrical Installation and Machinery Responsible Person	
25	CR 28(a)		Stacking and Storage Supervisor	
29	DMR 18(11)		Banksman	

CR	=	Construction Regulations
EMR	=	Electrical Machinery Regulations
DMR	=	Driven Machinery Regulations
GMR	=	General Machinery Regulations
ER	=	Environmental Regulations
GSR	=	General Safety Regulations
HCS	=	Hazardous Chemical Substances Regulations

Annexure B - Safe work procedures/method statements required

The hazardous operations listed below have been identified by the Client and must be managed by the Principal Contractor in the form of preparation of method statements / SWP's before such work begins. The onus remains on the Principal Contractor to conduct Risk Assessments and compile method statements for hazardous tasks (Construction Regulations). Contractors appointed by the Principal Contractor will be required to conduct the necessary Risk Assessments and method statements and forward these to the Principal Contractor before such work begins.

Due to the fact that various structures will be constructed with varying engineering designs, structure specific method statements will be required.

No.	METHOD STATEMENT / SWP	DATE APPROVED	DATE LAST REVIEWED
1	Demolition, method statements and demolition plans including the safety thereof		
2	Scaffolding Erection, alteration, dismantling Work thereon Inspections – when and who		
3	Lifting machines and related equip. Erection of equipment, operational procedures (slinging, control of various lifting operations)		
4	Roof work installation/removal of roof tiles, including worker safety methods and procedures while conducting this work		
5	Temporary barricading of exposed edges and elevated walkways (concrete floors, stairways and other)		
6	Movement of construction vehicles and mobile plant across/on public roadways and walkways (including cleaning procedures and road signage)		
7	Temporary Works Erection and dismantling Inspections – when and who. Edge protection strategy		
8	Major concrete work		
9	Cladding, sheeting and other structural steelwork including hot works		
10	Brickwork		
11	Traffic Management		

Annexure C - Compliance submission requirements

The Principal Contractor and Contractors must comply with [where applicable] but not be limited to the requirements tabled below: Prove compliance at audits conducted by the safety agent.

OHS Section/Regulation	Act	Subject	Requirements
Construction. Regulation 4		Notification of intent to commence Construction work	Department of Labour notified Copy of Notice available on Site
General Regulation 4	Admin.	Copy of OH&S Act (Act 85 of 1993)	Updated copy of Act & Regulations on site. Readily available for perusal by employees.
COID Act Section 80		Registration with Compensation Insurer	Written proof of registration/Letter of good standing available on site
Construction. Regulation 5		H&S Specification	H&S Spec received from Client and/or its Agent on its behalf OH&S programme developed & updated regularly
Section 8(2)(d) Construction. Regulation 9		Hazard Identification & Risk Assessment	Hazard Identification carried out/Recorded Risk Assessment and – Plan drawn up/Updated RA Plan available on Site Employees/Sub-Contractors informed/trained
Section 16(2)		Assigned duties (Managers)	Responsibility of complying with the OH&S Act assigned to other person/s by CEO.
Construction Regulations 8(1)		Designation of Person Responsible for Managing of Site	Competent person appointed in writing as Construction Manager with job description
Construction Regulations 8(2)		Designation of Assistant for above	Competent person appointed in writing as Assistant Construction Manager with job description
Construction. Regulation 8(7)		Designation of Person Responsible on Site	Competent person appointed in writing as Construction Supervisor with job description
Construction. Regulation 8(8)		Designation of Assistant for above	Competent person appointed in writing as Assistant Construction Supervisor with job description
Section 17 & 18 General Administrative Regulations 6 & 7		Designation of Health & Safety Representatives	More than 20 employees - one H&S Representative, one additional H&S Rep. for each 50 employees or part thereof. Designation in writing, period and area of responsibility specified in terms of GAR 6 & 7 Meaningful H&S Rep. reports. Reports actioned by Management.
Section 19 & 20 General Administrative Regulations 5		Health & Safety Committee/s	H&S Committee/s established. All H&S Reps shall be members of H&S Committees Additional members are appointed in writing. Meetings held monthly, Minutes kept. Actioned by Management.

Section 24 & General Admin. Regulation 8 COID Act Sect.38, 39 & 41	Reporting of Incidents (Dept. of Labour)	Incident Reporting Procedure displayed. All incidents in terms of Sect. 24 are reported to the Provincial Director, Department of Labour, within 3 days. (Annexure 1)(WCL 1or 2) and to the Client and/or its Agent on its behalf Copies of Reports available on Site Record of First Aid injuries kept
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General Admin. Regulation 9	Investigation and Recording of Incidents	All injuries which resulted in the person receiving medical treatment other than first aid, recorded and investigated by investigator designated in writing. Copies of Reports (Annexure 1) available on Site Tabled at H&S Committee meeting
Construction. Regulation 10	Fall Prevention & Protection	Competent person appointed to draw up and supervise the Fall Protection Plan Proof of appointees competence available on Site Risk Assessment carried out for work at heights Fall Protection Plan drawn up/updated and workers trained Available on Site
Construction. Regulation 10(5)	Roof work	Competent person appointed to plan & supervise Roof work. Proof of appointees competence available on Site Risk Assessment carried out and workers trained Roof work Plan drawn up/updated Roof work inspect before each shift. Inspection register kept Employees medically examined for physical & psychological fitness. Written proof on site
Construction. Regulation 11	Structures	Information re. the structure being erected received from the Designer including: - Geo-science technical report where relevant - The design loading of the structure - The methods & sequence of construction - Anticipated dangers/hazards/special measures to construct safely Risk Assessment carried out Method statement drawn up All above available on Site
Construction. Regulation 16	Scaffolding	Competent persons appointed in writing to: - Erect scaffolding (Scaffold Erector/s) - Inspect Scaffolding weekly and after inclement weather (Scaffold Inspector/s) Written Proof of Competence of above appointees available on Site Risk Assessment carried out Inspected weekly/after bad weather. Inspection register/s kept
Construction. Regulation 19	Materials Hoist	Competent person appointed in writing to inspect the Material Hoist Written Proof of Competence of above appointee available on Site. Materials Hoist to be inspected weekly by a competent person. Inspections register kept.
Construction. Regulation 21	Explosive Actuated fastening devices	Competent person appointed to control the issue of the Explosive Actuated Fastening Devices & cartridges and the service, maintenance and cleaning. Register kept of above Empty cartridge cases/nails/fixing bolts returns recorded Cleaned daily after use Work areas are demarcated.

Construction. Regulation 22/ Driven Machinery Regulations 18 & 19	Lifting Machines Equipment	Competent person appointed in writing to inspect Lifting Machines& Equipment Written Proof of Competence of above appointee available on Site.Lifting tackle identified/numbered Register kept for Lifting Tackle Log Book kept for each individual Crane Inspection: - - Lifting tackle(slings/ropes/chain slings etc.) - daily or before every new application
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Construction. Regulation 24/Electrical Machinery Regulations 9 & 10/ Electrical Installation Regulations	Inspection & Maintenance of Electrical Installation & Equipment (including portable electrical tools)	Competent person appointed in writing to inspect/test the installation and equipment. Written Proof of Competence of above appointee available on Site.Inspections: - Electrical Installation & equipment inspected after installation, after alterations and quarterly. Inspection Registers kept Portable electric tools, electric lights and extension leads must be uniquely identified and numbered. Weekly visual inspection by User/Issuer/Storeman. Register kept.
Construction. Regulation 28/ General Safety Regulation 8(1)(a)	Stacking & Storage Supervisor.	Competent Person/s with specific knowledge and experience designated to supervise all Stacking & Storage Written Proof of Competence of above appointee available on Site
Construction. Regulation 29/ Environment al Regulation 9	Designation of a Person to Co-ordinate Emergency Planning And Fire Protection	Person/s with specific knowledge and experience designated to co- ordinate emergency contingency planning and execution and fire prevention measures Emergency Evacuation Plan developed: - Drilled/Practiced - Plan & Records of Drills/Practices available on Site Fire Risk Assessment carried out All Fire Extinguishing Equipment identified and on register. Inspected weekly. Inspection Register kept Serviced annually
General Safety Regulation 3	First Aid	Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed) First Aid freely available Equipment as per the list in the OH&S Act. One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed) List of First Aid Officials and Certificates Name of person/s in charge of First Aid box/es displayed. Location of First Aid box/es clearly indicated. Signs instructing employees to report all Injuries/illness including first aid injuries
General Safety Regulation 2	Personal Safety Equipment (PSE)	Items of PSE prescribed/use enforced Records of Issue kept Undertaking by Employee to use/wear PSE PSE remain property of Employer, not to be removed from premises GSR 2(4)

General Safety Regulation 9	Inspection & Use of Welding/Flame Cutting Equipment	Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas Welding and Flame Cutting Equipment Written Proof of Competence of above appointee available on Site All new vessels checked for leaks, leaking vessels NOT taken into stock but returned to supplier immediately Equipment identified/numbered and entered into a register Equipment inspected weekly. Inspection Register kept
Hazardous Chemical Substances (HCS) Regulations Construction Regulation 25	Control of Storage & Usage of HCS and Flammables	Competent Person/s with specific knowledge and experience designated to Control the Storage & Usage of HCS (including Flammables) Risk Assessment carried out Register of HCS kept/used on Site

Pressure Equipment Regulations	Pressure Equipment	Competent Person/s with specific knowledge and experience designated to supervise the use, storage, maintenance, statutory inspections & testing of VUP's Written Proof of Competence of above appointee available on Site Risk Assessment carried out Register of Pressure Equipment on Site
Construction. Regulation 23	Construction Vehicles & Earth Moving Equipment	Operators/Drivers appointed to: - Carry out a daily inspection prior to use - Drive the vehicle/plant that he/she is competent to operate/drive Written Proof of Competence of above appointee available on Site. Medical Report available for each operator available on site Record of Daily inspections kept
General Safety Regulation 13A	Inspection of Ladders	Competent person appointed in writing to inspect Ladders Ladders inspected at arrival on site and weekly thereafter. Inspections register kept

Annexure D - Typical safety file index and registers

Please note: Site File contents may vary depending on the type of trade.
(Typical Site File Contents)

1. SHE Policy
2. Notification of Construction Work
3. Client Safety Spec
4. SHE Plan
5. Environmental Management Plan
6. Organogram
7. Mandatory Appointments
8. General Appointments
9. Drivers Licenses and Certificates of Training
10. Medical Certificates & Psychiatric Evaluations
11. Method Statements
12. Risk Assessments
13. Risk Assessment Review Plan
14. Proof of Risk Assessment Training
15. Safe Works Procedures
16. Fall Protection Plan
17. Proof of Fall Protection Training
18. Demolition Plan
19. MSDS
20. Emergency Procedure
21. Emergency Tel List
22. Accident and Incident Procedures
23. Annexure 1 Forms
24. Severe Weather Plan
25. Heat Stress Procedure
26. Lock Out Procedure
27. Equipment list and Test Certifications
28. Minutes – Safety Meetings
29. Audits and Notifications
30. WCA Certificate of Good Standing & Claim Forms
31. Site Rules
32. Inductions
33. Toolbox Talks
34. Copy of the Act
35. Copy of Construction Regulation



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REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
**PUBLIC WORKS, ROADS
AND INFRASTRUCTURE**

PART C4 SITE INFORMATION



C4.1 DRAWINGS

FINISHES LEGEND

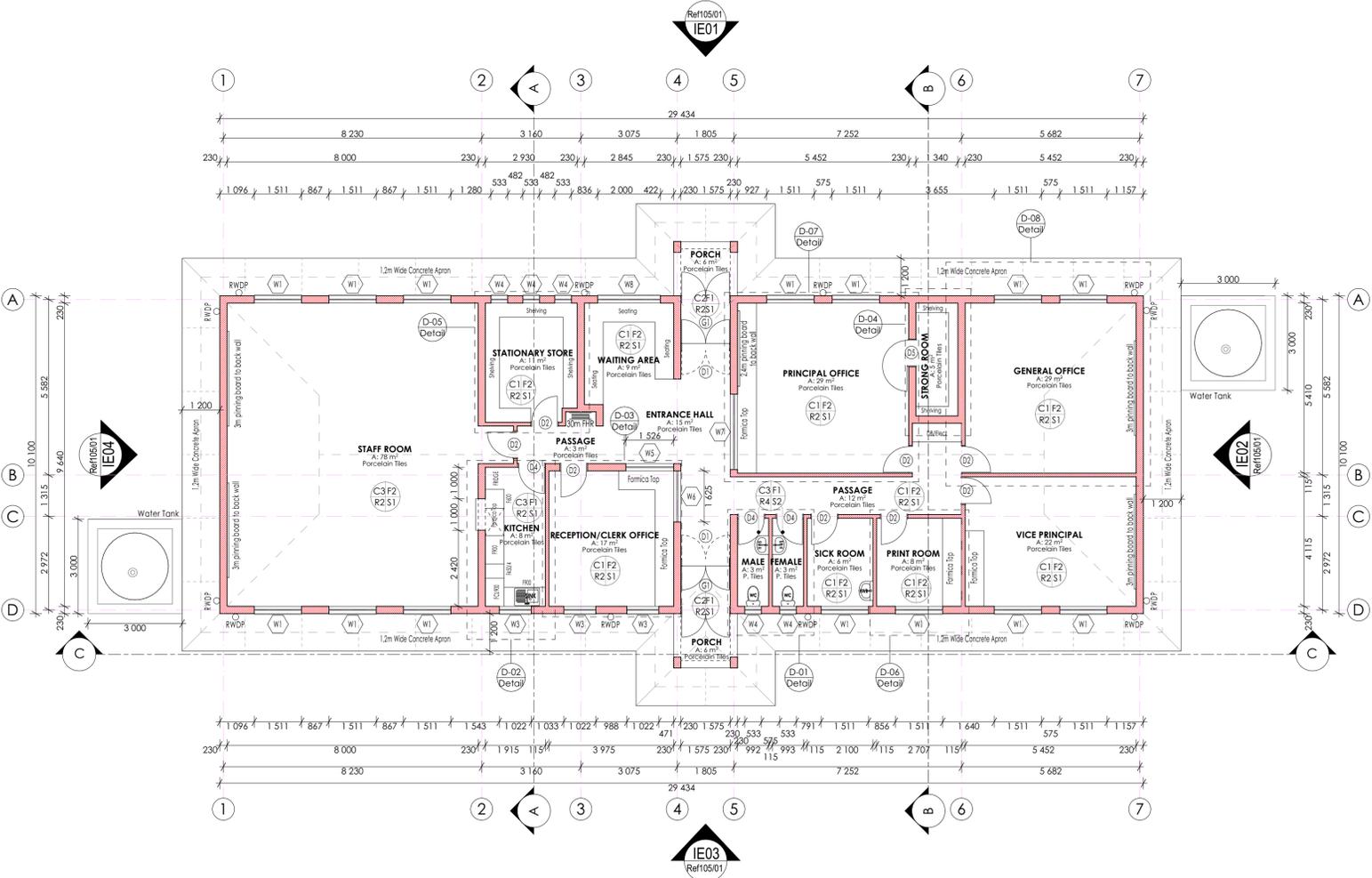
- FLOORS:**
- F1- FULLY FLEXIBLE TILES (CORROSION RESISTANT & ANTI-SLIP)**
425x425 11.5mm kiln-dried floor tiles or similar approved by architects, fixed with adhesive, painted with finished waterproof jointing compound. Grouting to be grey. Tiles should have expansion joint and aluminium edging strip.
- F2- PORCELAIN TILE - MATT**
600 x 600 x 10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds. With thickness/specification in strict compliance to manufacturer's instructions and SABS specification. Fittings to include, ribbed angle tiles where there is change of level and Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
- F3- CARPETILES**
500mm x 500mm x 1005 PFK staple fibre carpet tiles to comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DIN 54824 on wira test and 50 body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.
- F4- CEMENT SAND SCREED**
30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for Topping to comply with SABS 1083 or latest revision for concrete.
- F5- EXTERIOR MULTI-COLOURED CONCRETE INTERLOCKING PAVES**
65mm thick multi-coloured concrete paves laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.
- F6- GRANITIC FINISH**
22mm thick unsealed Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve laid by specialist in panels not exceeding 10m², divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.
- F7- INTERLOCKING PAVES (RIGID PAVING/VEHICULAR WAYS)**
220mm x 197mm x 60 mm thick concrete interlocking paves, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a 'herringbone' pattern to the Architect's approval.
- F8- SEMI-FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIP)**
22mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 584. With Static Dissipative Properties Throughout Thickness. Engineered for ISO 9001 (anti-static) Protection Vinyl Sheet. Laid on Self-Levelled Smooth Screed glued with conductive adhesive to SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polished Floor In Compliance With SABS 1042, Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity, Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.
- F9- GRAVEL FINISH ON SAND LAYER**
32mm Gravel On Compacted Sand Layer Base as Per PSE Details installed in All Duct Chambers Accommodating Sanitary Services.
- SKIRTING:**
- S1- HARDWOOD OR EQUAL AND APPROVED**
18 x 15mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs at centres not exceeding 400mm, and fixed with a 19mm x 19mm quadrant bedding. The skirting to be varnished with 3No. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
- S2- CERAMIC TILE SKIRTING**
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with cove base and height top. Complete with corner and top trims. Fittings to include, ribbed angle tiles where there is change of level. Colour and pattern to architects approval.
- S3- CEMENT SAND SCREED**
75 mm high x 20 mm thick hardened cement sand screed skirting covered at 30 mm dia. to form a continuous joint with the adjoining screed floor finish to FA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.

- WALL FINISHES:**
- W1- FACE BRICK**
FKX face brick in common running bond to comply with SABS 227 and forming part of the structural work.
- W2- EMULSION (PVA) PAINT - FULL HEIGHT**
2 No. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.
- W3- ENAMEL PAINT**
2 no. coats matt (egg shell) finish alkyl (jeromel) paint to SABS 630, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade1, in accordance to manufacturer's instructions.
- W4- GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO**
Combination of: 600mm wide x 300mm x 7mm thick high glazed ceramic tiles To Specification "R5", laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R2" To Comply with SABS 630 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.
- W5- CERAMIC WALL TILES - FULL HEIGHT**
600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or Latest Revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.

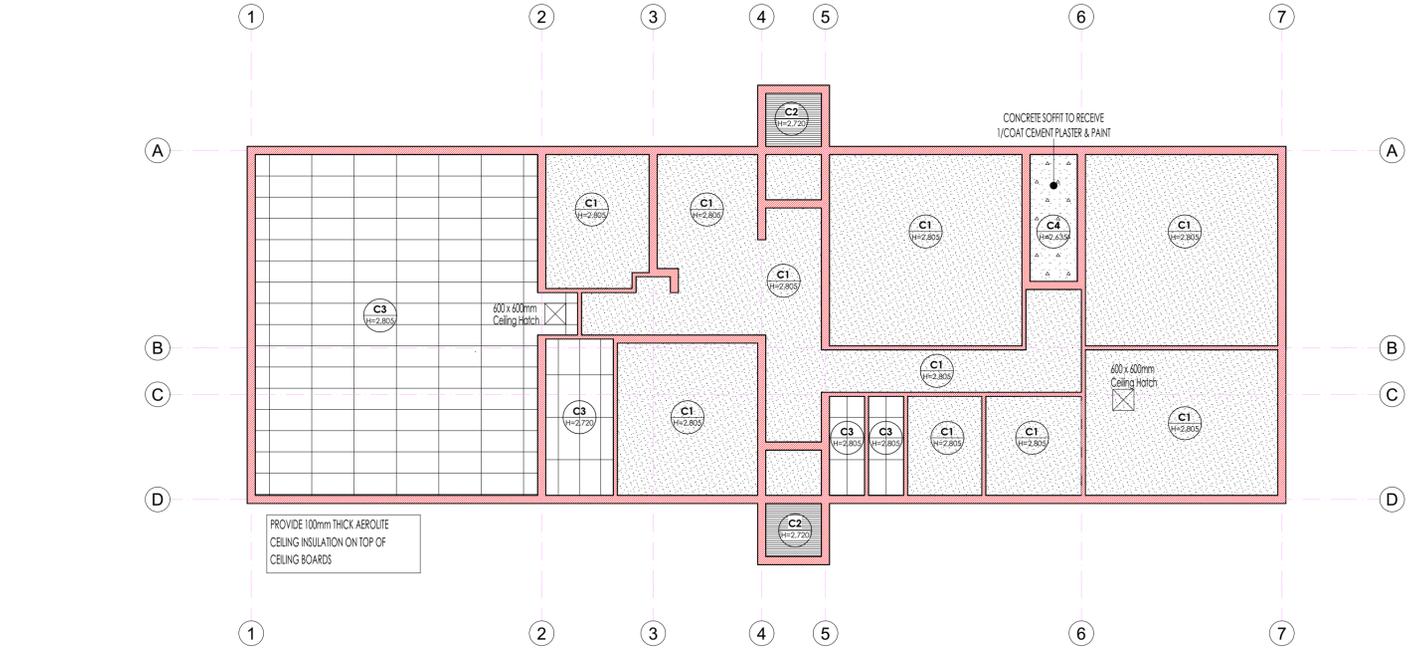
- CEILING AND CORNICE:**
- C1- 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED**
'GypCel Classic' gypsum plasterboard ceiling/ EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospacer lising) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres. Apply, Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoTape.
- C2- FIBRE CEMENT BOARDS (H-JOINTED)**
6.4mm thick GypCel Prestige 5' fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9 mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, Ecospacer lising, non-combustible to SANS 10177:5) fixed to Ek 38mm x 50mm timber bracing installed at maximum 400mm centres using Gyproc RhinoBoard Sharp Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoTape.
- C3- PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED**
1200mm x 600mm x 15mm Gyproc Calceus Pro Prefinished or Fire Rated OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M4 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees (14mm thickness, 2150 g/m² coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the fire notch. All fire notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.
- C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED**
Emulsion (PVA) Paint on Skimmed Plastered Slab 3No. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soffit.

- ROOF COVERING AND INSULATION:**
- R1- EMBOSSED ROOFING SHEET (TWO SIDES)**
- Roofing Sheets:** 1.5mm thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (R1). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 450mm. The rib height shall be 41mm and provide cavity breaks. The male rib shall have gaps of 28mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with 'Global Coat' or 'Chromadek Colour' and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and eave closes in strict compliance to manufacturer's instructions.
- Insulation:** SHALL EITHER BE: 1. where there are acoustic ceilings suspended board, a heavy duty 'Aluminium station foil' shall be installed AND 2. where the steel work is exposed, a 50mm 'FactoryBoard' manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white metalized foil.
- Galvanized Steel (GI) Gutter:** 150mm Wide x 100mm Deep x 0.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
- Downpipe:** 110 x 110 x 0.8mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-lapping screws to Manufacturer installation instructions.
- Facia board:** 250 x 10 mm Fibre Cement Facia/Barge Board. Screw Fixed To Tuss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

FLOOR PLAN:
Scale 1:100.



CEILING PLAN:
Scale 1:100.

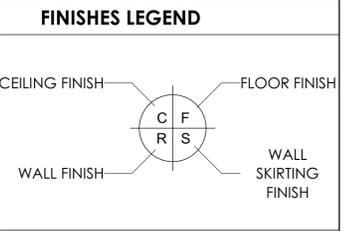


DISCIPLINE		SIGN	DATE
CLIENT			
PLAN EXAMINER			
FIRE CONTROL			
ENVIRONMENTAL			
ROADS STORMWATER			
WATER & SANITATION			

ISSUED FOR TENDER

- LEGEND**
- NEW WALLS
 - EXISTING WALL TO BE RETAINED
 - EXISTING WALL TO BE DEMOLISHED
 - NEW FIXTURES & FITTING TO BE INSTALLED
 - ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT



SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

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DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE
INSTITUTION
MAKGOPELE SECONDARY-918 521 309

RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION
DOCUMENTATION & PROCUREMENT
DISCIPLINE: **ARCHITECTURAL** (4)
WORK DESCRIPTION - SUB DIVISION: **MEDIUM ADMINISTRATION BLOCK**
DRAWING DESCRIPTION: **FLOOR PLAN & CEILING LAYOUT**

DWG No. 101-01	01/10	ITEM No.
DESIGN NA	KSN	DRAWN
SCALE A5 - SHOWN	ES	CHECK
DATE	RESPONSIBLE PROFESSIONAL SIGNATURE	PR. NUMBER
NOV 2019	A. SINKALA	PrAtch 24750409

DRAWING CO-ORDINATED

CONSULTANT
TECTURA PROJECTS

ALSO IN HARBOUR: KYNA AND GABORONE, BOTSWANA

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/G14	0

FINISHES LEGEND

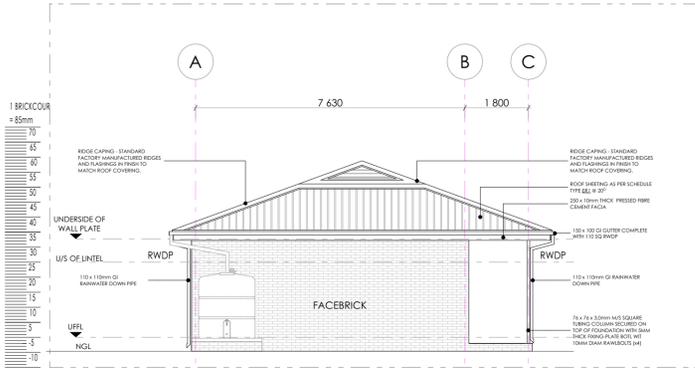
- FLOORS:**
F1- FULLY FLEXIBLE TILES (CORROSION RESISTANT & ANTI-SLIP)
300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to comply with SANS 107 and approved adhesives and grout on screeds With thickness/specification in strict compliance to manufacturer's specifications and SANS specification 581:1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement sand subfloor. Fittings to include, ribbed angle files where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
F2- PORCELAIN TILES - MATI
600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With thickness/specification in strict compliance to manufacturer's specifications and SABS specification. Fittings to include, ribbed angle files where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
F3- CARPET Tiles
520mm x 520mm x 1008 RFX RFX fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof jute backing and to comply with BS 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and BS S4324 on wire test and SD body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.
F4- CEMENT SAND SCREED
30mm thick portland cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.
F5- EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS
60mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approved and graded in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or latest Revision.
F6- GRANULITIC FINISH
22 mm thick unfortified Granulitic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m2, divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.
F7- INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)
220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a herringbone pattern to the Architect's approval.
F8- SEMI FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIP/PPV)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self Levelled Smooth Screed glued with conductive adhesive to SABS 070 or latest Revision in accordance to Manufacturer's Instructions And Installed by Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor in Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.
F9- GRAVEL FINISH ON SAND LAYER
30mm Gravel On Compacted Sand Layer Base as Per PE Details Installed in All Duct Chambers Accommodating Sanitary Services.
SKIRTING:
S1- HARDWOOD OR EQUAL AND APPROVED
75 x 25mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with sprayed heading joints and metal cones with screws and plugs of centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
S2- CERAMIC TILE SKIRTING
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 20mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.
S3- CEMENT SAND SCREED
75mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia, to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083, or latest revision.
WALL FINISHES:
B1- FACE BRICK
F8 Face brick in common running bond to comply with SABS 227 and forming part of the structural work.
B2- EMULSION (PVA) PAINT - FULL HEIGHT
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade I, in accordance to manufacturer's instructions.
B3- ALUID (ENAMEL) PAINT
2 no. coats matt (egg shell finish aluid (enamel) paint to SABS 650, type 2 applied on plastered surfaces with 1 no coat alkali resistant plaster primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade I, in accordance to manufacturer's instructions.
B4- GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO
Combination of 600mm wide x 300mm x 7mm thick high glazed ceramic tiles to Specification 'RS', laid on 15 mm thick plaster prepared to receive wall tile finish with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification 'R2' To Comply with SABS 681 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.
B5- CERAMIC WALL TILES - FULL HEIGHT
600mm x 300mm x 7mm thick high glazed ceramic tiles to comply with SABS 22 or latest revision, laid on 15 mm thick plaster prepared to receive wall tile finish with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 standard. All to be manufactured and installed in strict compliance SABS 22 standard.
CEILING AND CORNICE:
C1- 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
GypCell Classic gypsum plasterboard ceiling OR EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc Rhinobond Strap Fast Grabber Screws 20mm at maximum 150mm centres. Apply Gyproc Rhinotape to all joints and skim the ceiling using Gyproc Rhinotile.
C2- FIBRE CEMENT BOARDS (H-JOINTED)
6mm thick GypCell Resistor 1 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10171-5) fixed to EX 38mm x 50mm timber bracing installed at maximum 400mm centres using Gyproc Rhinobond Strap Fast Grabber Screws 20mm at maximum 150mm centres with all necessary accessories, finished with 3 no. coats of super PVA external quality paint colour to PA's approval. Gyproc Rhinotape to all joints and skim the ceiling using Gyproc Rhinotile.
C3- PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
1200mm x 600mm X 15mm Gyproc Calotex Pin Perforated or Fine Fibred OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips 8mm. Donn Wall Angle M6 fixed to the perimeter wall using fittings at 300mm centres. Donn T38 FR Main Tees (8mm thickness, 2150 gawg, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspended main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the tile notch. All the notches to be in line. Suspends all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 603 including all necessary accessories and installed in strict accordance to manufacturer's specifications.
C4- EMULSION (PVA) PAINT OR EQUAL AND APPROVED
Emulsion (PVA) Paint on Skinned Plastered Top 3no. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hem-hydrate gypsum plaster on concrete slab.
ROOF COVERING AND INSULATION:
R1- EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 0.88mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (3). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 456mm. The rib height shall be 41mm and provide copillary breaks. The male rib shall have spurs of 28mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roofbolts to be coated on both sides with "Global Coat" or Chromokod Colour and laid on structural timber/steel structure incorporating all necessary accessories such as fixings and eave covers in strict compliance to manufacturer's instructions.
R2- SHAL (SH-85) 12
Where there are acoustic ceilings suspended board a heavy duty Aluminium stasion foil shall be installed AND 2 where the steel work is exposed, a 50mm "Fibroboard" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white melitised foil.
Galvanised Steel (GI) GULLIES:
150mm Wide x 100mm Deep x 60mm Eaves Gutter of Commercial Grade Steel With Class 2275 Galvanizing To Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.
Downpipe:
110 x 110 x 6.0mm Thick Commercial Grade Galvanised Steel Sheet With Class 2275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into wall or cast in concrete columns fixed to brickwork or steel including brackets and self-tapping screws to Manufacturer Installation Instructions.
Facia board:
250 x 10 mm Fibre-Cement Facia/Barge Board, Screw Fixed to Tus and 6. Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic PVA.

DOOR SCHEDULE:
Table with 2 columns: EXTERIOR DOOR and BURGLAR DOOR (SINGLE). Includes columns for QUANTITY, DOOR DESCRIPTION, FRAME, FRAME FINISH, DOOR FINISH, IRON MONGERY, and HINGES.

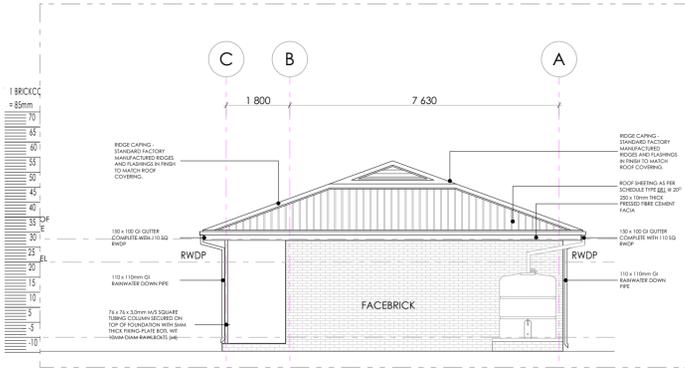
BLOCK SJ-05 DOOR SCHEDULE
SCALE 1:100

WINDOW SCHEDULE:
Table with 2 columns: WINDOW and BURGLAR DOOR (SINGLE). Includes columns for QUANTITY, WINDOW DESCRIPTION, FRAME, FRAME FINISH, DOOR FINISH, IRON MONGERY, and HINGES.

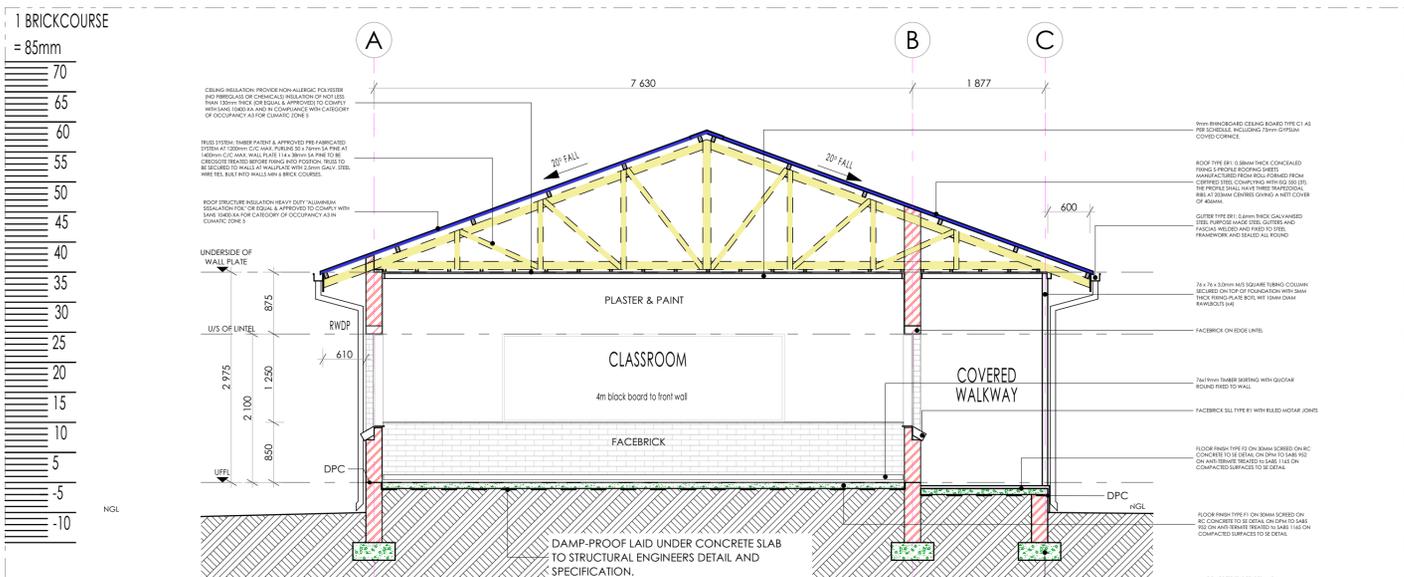
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BLOCK SJ-05 SIDE ELEVATION
SCALE 1:100



BLOCK SJ-05 SIDE ELEVATION
SCALE 1:100



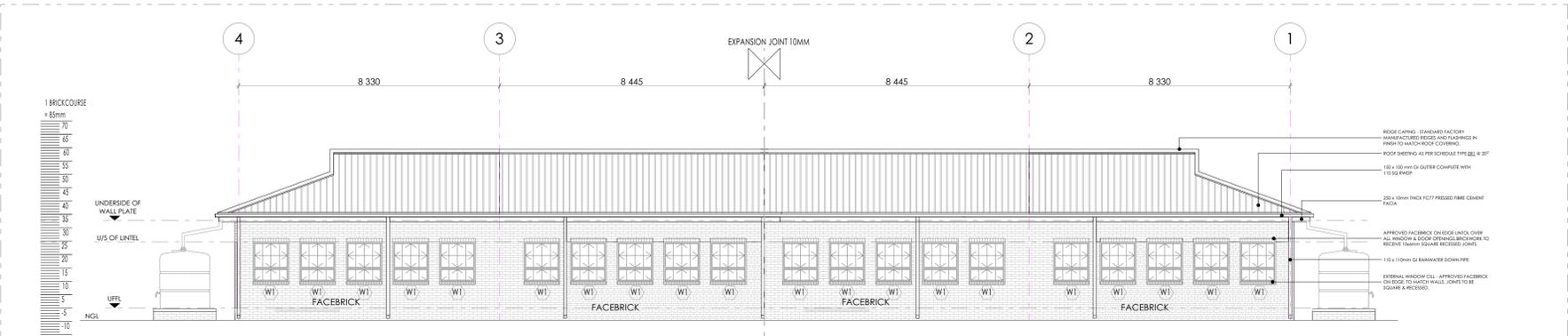
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SANITARY SCHEDULE

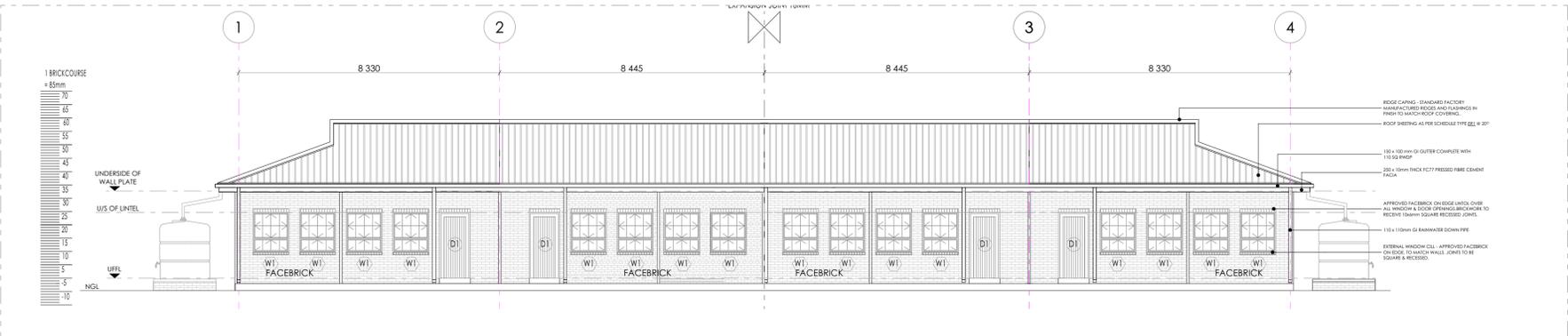
- WC'S URINALS & SHOWER**
W1- CERAMIC STANDARD WC (CC)- CONCEALED CISTERN
Vitreous china 90° outlet or equal and approved, top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 487 & Fitted with 'Jazz Thermal Seal Seat'. Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with blank flush plate.
W2- CERAMIC PARALEGIC WC
Vitreous china 90° outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 487. Fitted with Cistern installed complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.
W3- CERAMIC PARALEGIC WC (CC)- CONCEALED CISTERN
Vitreous china 90° outlet or equal and approved, top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 487 & Fitted with 'Jazz Thermal Seal Seat'. Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever. Blank flush plate & offset push button for passage access.
W4- CERAMIC STANDARD WC (BACK INLET)
Vitreous china 90° outlet back inlet pan to comply with SABS 487. Fitted complete with back inlet exposed flush-valve complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards. Flush valve to be fitted with suitable extension lever.
W5- CERAMIC STANDARD WC (CC)
Vitreous china 90° outlet, back inlet pan to comply with SABS 487 Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty thermal seal seat and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.
W6- CERAMIC WALL HUNG URINAL
Wall hung toilet pan to comply with SABS 487. Supplied with suitable 38mm CP domical grating, CP top inlet spreader and two hanger brackets and fitted with exposed flush-valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS standards.
W7- SHOWER
20mm thick Enamelled steel shower tray size 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP grouted waste fitting in corner position fitted with shower tray and complying with SABS 226 comprising of approved:
- Gazed Shower Cubicle with access door as per standard supply from manufacturer and sized to fit space configuration.
- Overhead shower arm with wall flange.
- Chrome Plated Shower Head with adjustable connector.
- Chrome Plated Softy Shower diverter mixer-wal with sliding wall flanges and concealed connectors adjustable from 178mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face.
WASH-HAND BASIN
W8- WASH & MIRROR TAP
Vitreous china size 560 x 415mm rounded 'Tuscany' OR EQUAL AND APPROVE basin to comply with SABS 497 with single tap hole configuration supplied with integrated overflow and chinistry hole through the centre semi-punched supplied with a 'Tuscany' pedestal and fitted with 'No. Cobra Model' 15mm chrome plated ceramic tap with flanged backnut (code KM2.102) meeting tap, 30°-32° CP anti-thrust plug with spindle, 308 mm basin wide, 365/40 CP bottle trap, mounting kit and angle valves.
W9- DISABLED BASIN
20mm semi rounded lavatory basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W10- WHITE GLAZED PORCELAIN W/B (VANITY)
Ceramic freecast size 450x350mm oval self-reming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves, 400mm long flexible inlets and chrome plated bottle traps supplied with all necessary pipe connections. Basin mounted on cabinet or vanity slab with silicon bead between contact areas in strict accordance to manufacturer's specifications.
W11- SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)
Vitreous china size 450x300mm oval basin to comply with SABS 497 in 2-top hole configuration supplied with integrated overflow and chinistry hole with 2No. pillar-top, chrome plated anti-thrust plug with spindle plug, slotted basin waste, chrome plated bottle trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connections. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.
W12- HUNIDY BASIN & NO. TAP (FOR LABS)
Vitreous china size 450x300mm oval basin to comply with SABS 497 in one top hole configuration supplied with integrated overflow and chinistry hole with 2No. pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W13- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W14- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W15- DOUBLE WASH TROUGH (ENGL) 2 NO. TAPS
1200 x 550 x 200mm Double bowl wall hung trough manufactured from grade 18/10 SS, stainless steel with radiused internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2No. CP bibcocks - plan extended chrome plated, complete with sliding wall flanges, Un-slotted sink waste with bolt, plug with strip, chain and stay, CP 'P' trap, with deep seal and cleaning eye. Rough Basin Sink installation height = 900mm AFFL. Cut out size 555 x 425mm.
W16- DOUBLE WASH TROUGH (ENGL) 2 NO. TAPS
1200 x 550 x 200mm Double bowl wall hung trough manufactured from grade 18/10 SS, stainless steel with radiused internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2No. CP bibcocks - plan extended chrome plated, complete with sliding wall flanges, Un-slotted sink waste with bolt, plug with strip, chain and stay, CP 'P' trap, with deep seal and cleaning eye. Rough Basin Sink installation height = 900mm AFFL. Cut out size 555 x 425mm.
W17- DOUBLE WASH TROUGH (ENGL) 2 NO. TAPS
1200 x 550 x 200mm Double bowl wall hung trough manufactured from grade 18/10 SS, stainless steel with radiused internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2No. CP bibcocks - plan extended chrome plated, complete with sliding wall flanges, Un-slotted sink waste with bolt, plug with strip, chain and stay, CP 'P' trap, with deep seal and cleaning eye. Rough Basin Sink installation height = 900mm AFFL. Cut out size 555 x 425mm.
W18- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W19- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W20- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W21- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W22- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W23- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W24- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W25- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W26- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W27- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W28- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W29- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W30- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W31- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W32- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W33- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W34- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W35- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W36- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W37- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W38- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W39- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W40- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W41- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W42- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W43- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W44- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W45- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W46- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W47- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W48- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W49- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W50- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W51- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W52- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W53- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W54- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W55- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W56- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W57- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W58- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W59- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W60- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W61- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W62- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W63- MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x300mm oval basin to comply with SABS 497, in two top hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and 8/16 Red indicators water applications and flanged backnut, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fied with concealed wall bracket in accordance to the manufacturer's specifications.
W64- MEDIC

FINISHES LEGEND

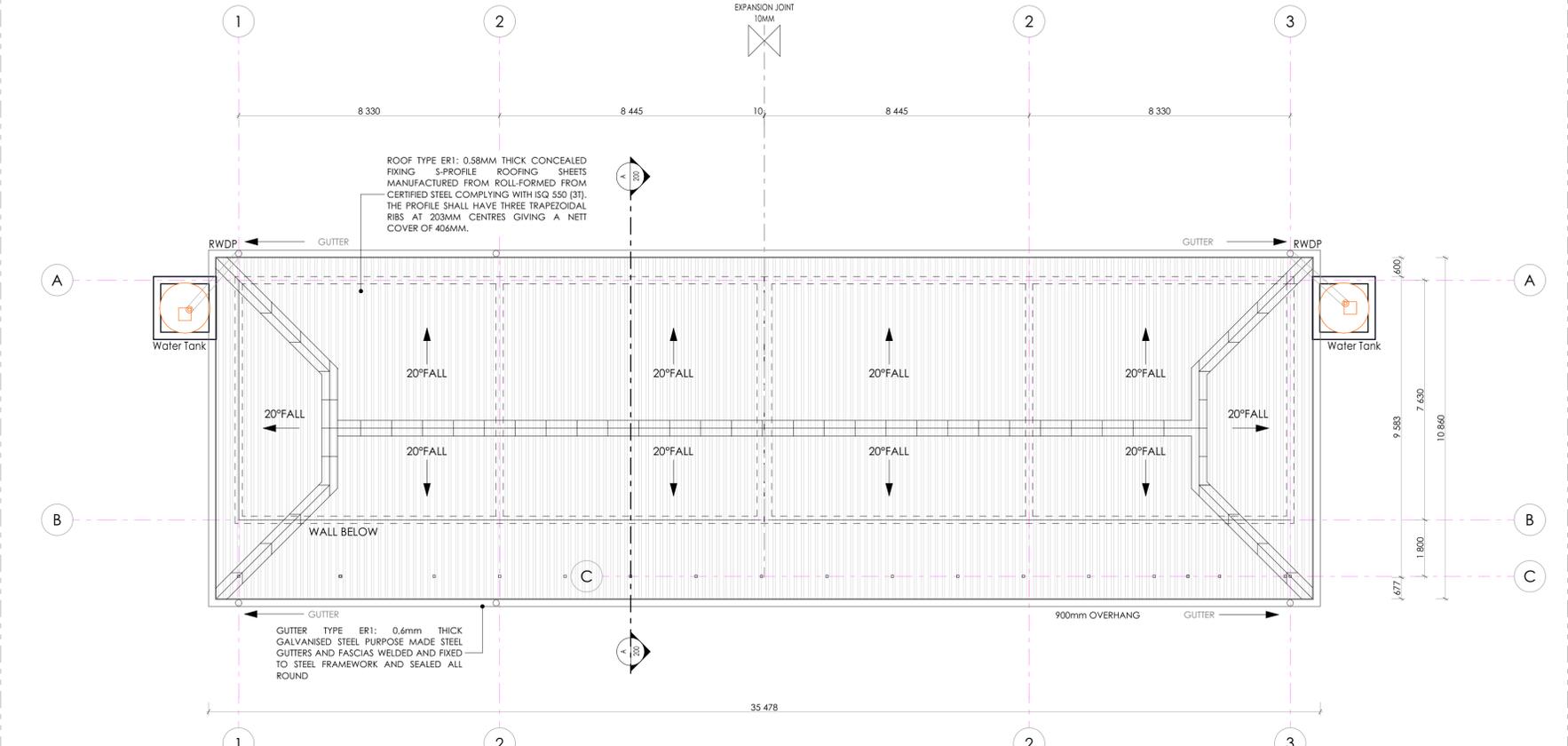
- FLOORS:**
F1- FULLY FLEXIBLE TILES (CORROSION RESISTANT & ANTI-SLIPPER)
 300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification 581: 1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement screed subfloor. Fittings to include, ribbed angle files where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
- F2- PORCELAIN TILES - MATT**
 600 x 600 x 10mm matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With thickness/specification in strict compliance to manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
- F3- CARPET TILES**
 500mm x 500mm, 100% PEV staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DN S4324 on wire test and 50 body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.
- F4- CEMENT SAND SCREED**
 30mm thick polished cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.
- F5- EXTERIOR MULTI-COLOURED CONCRETE INTERLOCKING PAVERS**
 60mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or latest Revision.
- F6- GRANOLITHIC FINISH**
 22mm thick unsealed Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve; laid by specialist in panels not exceeding 10m², divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.
- F7- INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)**
 22mm x 197mm x 60 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a "herringbone" pattern to the Architect's approval.
- F8- SEMI-FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPER)**
 2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive adhesive to SABS 070 or latest Revision in Accordance to Manufacturer's Instructions And Installed by Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity, Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.
- F9- GRAVEL FINISH ON SAND LAYER**
 30mm Gravel on Compacted Sand Layer Base as Per PE Details installed in All Duct Chambers Accommodating Sanitary Services.
- SKIRTING:**
S1- HARDWOOD OR EQUAL AND APPROVED
 18 x 75mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and milled corners with screws and plugs of centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
- S2- CERAMIC TILE SKIRTING**
 600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.
- S3- CEMENT SAND SCREED**
 75mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083 or latest revision.
- WALL FINISHES:**
W1- FACEBRICK
 F88 face brick in common running bond to comply with SABS 227 and forming part of the structural work.
- W2- EMULSION (PVA) PAINT - FULL HEIGHT**
 2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade I, in accordance to manufacturer's instructions.
- W3- ALKYD (ENAMEL) PAINT**
 2 no. coats matt (egg shell) finish alkyl (enamel) paint to SABS 650, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade I, in accordance to manufacturer's instructions.
- W4- GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO**
 Combination of 600mm wide x 300mm x 7mm thick high glazed ceramic tiles to Specification "R5", laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R2" To Comply with SABS 183 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.
- W5- CERAMIC WALL TILES - FULL HEIGHT**
 600mm x 300mm x 7mm thick high glazed ceramic tiles to Comply with SABS 22 or latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 standard. All to be manufactured and installed in strict compliance to SABS 22 standard.
- CEILING AND CORNICE:**
C1- 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
 Gyproc Classic gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc RhinoBoard Strap Fast Grabber Screws 32mm at maximum 150mm centres. Apply Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.
- C2- FIBRE CEMENT BOARDS (H-JOINTED)**
 6mm thick Gyproc FastFix 7 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc RhinoBoard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10171-5) fixed to EX 38mm x 50mm timber bracing installed at maximum 400mm centres using Gyproc RhinoBoard Strap Fast Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 no. coats of super PVA external quality paint colour to PA's approval. Gyproc RhinoTape to all joints and skim the ceiling using Gyproc RhinoLite.
- C3- PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED**
 1200mm x 600mm x 15mm Gyproc Calotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees @ 4mm thickness, 2150 g/m² coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the tile notch. All tile notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.
- C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED**
 Emulsion (PVA) Paint on Skimmed Plastered Sabs 3no. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soff.
- ROOF COVERING AND INSULATION:**
R1- EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (3). The profile shall have three trapezoidal ribs at 203mm centres giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 203mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave covers in strict compliance to manufacturer's instructions.
- Insulation:** SHALL EITHER BE 1; where there are acoustic ceilings suspended board, a heavy duty Aluminium insulation foil shall be installed AND 2; where the steel work is exposed, a 50mm "FactoryBoard" manufactured from non-combustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m² and finished with white metalized foil.
- Galvanized Steel (G)I Gutter:** 150mm wide x 100mm Deep x 0.6mm Eaves Gutter of Commercial Grade Steel With Class 275 Galvanizing To Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.
- Downpipe:** 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class 275 Galvanizing To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-tapping screws To Manufacturer Installation Instructions.
- Fascia board:** 750 x 10 mm Fibre-Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



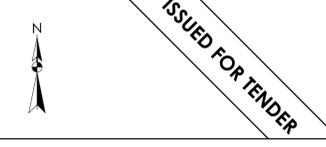
BLOCK SJ-05 REAR ELEVATION
SCALE 1:100



BLOCK SJ-05 FRONT ELEVATION
SCALE 1:100



BLOCK SJ-05 ROOF PLAN
SCALE 1:100



LEGEND

- NEW WALLS
- EXISTING WALL TO BE RETAINED
- EXISTING WALL TO BE DEMOLISHED
- NEW FIXTURES & FITTING TO BE INSTALLED
- ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
 ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
 DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
 CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

CEILING FINISH: C, FLOOR FINISH: F, WALL FINISH: W, WALL SKIRTING FINISH: S

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER

LIMPOPO
 PROVINCIAL GOVERNMENT
 REPUBLIC OF SOUTH AFRICA
 DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE
 INSTITUTION
MAKGOPHE SECONDARY-918 521 309

RESTORATIVES, REPAIRS & ADDITIONS
 CONTRACT - SECTION
DOCUMENTATION & PROCUREMENT
 DISCIPLINE: ARCHITECTURAL, 4
 WORK DESCRIPTION - SUB DIVISION
BLOCK PJ 01 - 04 CLASSROOM
 DRAWING DESCRIPTION
ROOF PLAN | FRONT & REAR ELEVATION

DRG. No.	G14 102-01	02/03	ITEM No.
DESIGN	NA	SMIN	DRAWN
DATE	AS SHOWN	T.M	CHECK
NOV 2019	A. SINKALA		PrAtch 24750409

DRAWING CO-ORDINATED

CONSULTANT
TECTURA PROJECTS
 1201 HARBOR DRIVE, SANDHURST, KZN
 Tel: +27 31 281 2384
 Fax: +27 31 281 2385
 Email: info@tectura.co.za

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME
SIZE	PROJECT NUMBER	REV
A1	LDPW - PROF/16002/G14	0

FINISHES LEGEND

FLOORS:
F1: FULLY FLEXIBLE TILES (CORROSION RESISTANT & ANTI-SLIPPER)
300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS 107 and approved adhesives and grout on screeds with thickness/specification in strict compliance to manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F2: PORCELAIN TILES - MAT
600 x 600 x 10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds with thickness/specification in strict compliance to manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files where there is change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CARPET TILES
500mm x 500mm, 100% FFV staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DN S4324 on wire test and 50 body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED
30mm thick potholed cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.

F5: EXTERIOR MULTI-COLOURED CONCRETE INTERLOCKING PAVES
65mm thick multi-coloured concrete paves laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.

F6: GRANULITHIC FINISH
22mm thick unsealed Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve laid by specialist in panels not exceeding 10m², divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

F7: INTERLOCKING PAVES (RIGID PAVING/VEHICULAR WAYS)
220mm x 197mm x 60 mm thick concrete interlocking paves, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a herringbone pattern to the Architect's approval.

F8: SEMI-FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586, With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive adhesive to SABS 070 or Latest Revision in Accordance to Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity, Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

F9: GRAVEL FINISH ON SAND LAYER
30mm Gravel On Compacted Sand Layer Base as Per PSE Details Installed in All Duct Chambers Accommodating Sanitary Services.

SKIRTING:
S1: HARDWOOD OR EQUAL AND APPROVED
18x 75mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and milled corners with screws and plugs of centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

S2: CERAMIC TILE SKIRTING
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle files where there is change of level. Colour and pattern to architects approval.

S3: CEMENT SAND SCREED
75mm high x 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance with SABS 1083 or latest revision.

WALL FINISHES:

F1: FACE BRICK
F88 face brick in common running bond to comply with SABS 227 and forming part of the structural wall.

F2: EMULSION (PVA) PAINT - FULL HEIGHT
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade I, in accordance to manufacturer's instructions.

F3: ALKALYD (ENAMEL) PAINT
2 no. coats matt [egg shell] finish alkylid (enamel) paint to SABS 650, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade I, in accordance to manufacturer's instructions.

F4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO
Combination of 600mm wide x 300mm x 7mm thick high glazed ceramic tiles to Specification "R5", laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R2" to comply with SABS 1581 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

F5: CERAMIC WALL TILES - FULL HEIGHT
600mm x 300mm x 7mm thick high glazed ceramic tiles to comply with SABS 22 or latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance to SABS 22 Standard.

CEILING AND CORNICE:

C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
"GypCell Classic" gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc Rhinoboard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc Rhinoboard Snap Point Grabber Screws 32mm at maximum 150mm centres. Apply 1 coat of Gyproc Rhinotape to all joints and skim the ceiling using Gyproc Rhinotile.

C2: FIBRE CEMENT BOARDS (R-JOINTED)
6mm thick GypCell FastFix 7 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc Rhinoboard 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10171-5) fixed to EX 38mm x 50mm timber bracing installed at maximum 400mm centres using Gyproc Rhinoboard Snap Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 No. coats of super PVA external quality paint colour to PA's approval. Gyproc Rhinotape to all joints and skim the ceiling using Gyproc Rhinotile.

C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
1200mm x 600mm X 15mm Gyproc Celotex Pin Perforated or Fire Fused OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn T38 FR Main Tees @ 4mm thickness, 2150 gwg, coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn T38V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the tee notch. All fire notches to be in line. Suspends of full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

C4 EMULSION (PVA) PAINT OR EQUAL AND APPROVED
Emulsion (PVA) Paint on Skimmed Plastered Sabs: 3no. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hem-hydrate gypsum plaster on concrete slab soff.

ROOF COVERING AND INSULATION:

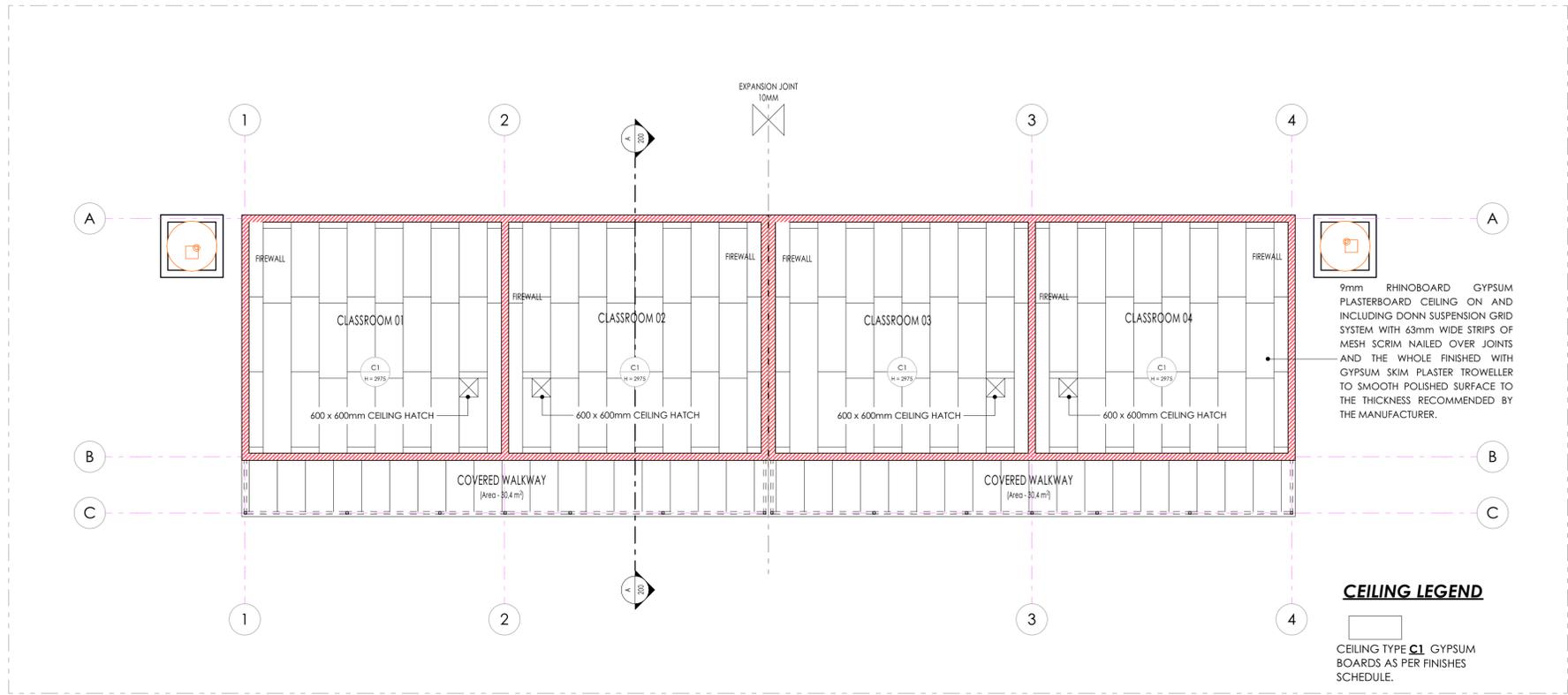
R1: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheet: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with S2 350 (S3). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs of 283mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roofbolts to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as flashings and eave covers in strict compliance to manufacturer's instructions.

Insulation: SHALL EITHER BE: 1: where there are acoustic ceilings suspended board, a heavy duty Aluminium insulation foil shall be installed AND 2: where the steel work is exposed, a 50mm "Factoryboard" manufactured from non-combustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white meltable foil.

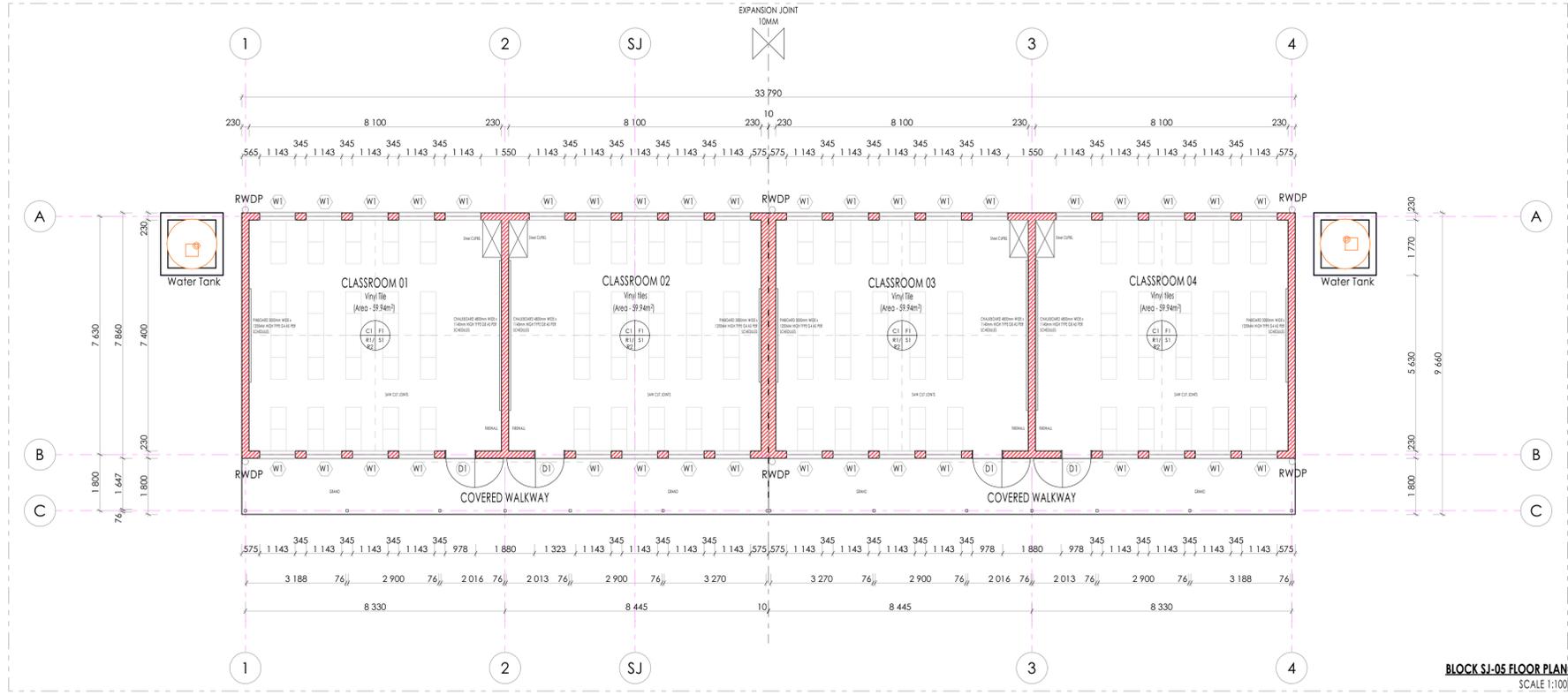
Galvanized Steel Guller: 150mm wide x 100mm Deep x 0.6mm Deep of Commercial Grade Steel With Class 2775 Galvanizing To Comply With SABS 934 or latest Revision Fixed to Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.

Dampstop: 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class 2775 Galvanizing To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-tapping screws to Manufacturer Installation Instructions.

Facia board: 750 x 10 mm Fibre-Cement Facia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



BLOCK SJ-05 CEILING PLAN
SCALE 1:100



BLOCK SJ-05 FLOOR PLAN
SCALE 1:100

ISSUED FOR TENDER

LEGEND

- NEW WALLS
- EXISTING WALL TO BE RETAINED
- EXISTING WALL TO BE DEMOLISHED
- NEW FIXTURES & FITTING TO BE INSTALLED
- ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

CEILING FINISH	FLOOR FINISH
WALL FINISH	WALL SKIRTING FINISH

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS & STORMWATER		
WATER & SANITATION		

REVISIONS

REV. NO.	DATE	DESCRIPTION
0	JUL 21	FIRST ISSUE FOR TENDER

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE

MAKGOPELE SECONDARY - 918 521 309

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION
BLOCK PJ 01 - 04 CLASSROOM

FLOOR PLAN & CEILING PLAN

DRG No.	G14 102-01	01/03	ITEM No.
DESIGN	NA	SMIN	DRAWN
DATE	AS SHOWN	T.M	CHECK

DATE	NAME	SIGN.	PR. NUMBER
NOV 2019	A. SINKALA		PrArch 24750409

CONSULTANT
TECTURA PROJECTS

TECTURA PROJECTS 101-102-103 104-105-106 107-108-109 110-111-112 113-114-115 116-117-118 119-120-121 122-123-124 125-126-127 128-129-130 131-132-133 134-135-136 137-138-139 140-141-142 143-144-145 146-147-148 149-150-151 152-153-154 155-156-157 158-159-160 161-162-163 164-165-166 167-168-169 170-171-172 173-174-175 176-177-178 179-180-181 182-183-184 185-186-187 188-189-190 191-192-193 194-195-196 197-198-199 200-201-202 203-204-205 206-207-208 209-210-211 212-213-214 215-216-217 218-219-220 221-222-223 224-225-226 227-228-229 230-231-232 233-234-235 236-237-238 239-240-241 242-243-244 245-246-247 248-249-250 251-252-253 254-255-256 257-258-259 260-261-262 263-264-265 266-267-268 269-270-271 272-273-274 275-276-277 278-279-280 281-282-283 284-285-286 287-288-289 290-291-292 293-294-295 296-297-298 299-300-301 302-303-304 305-306-307 308-309-310 311-312-313 314-315-316 317-318-319 320-321-322 323-324-325 326-327-328 329-330-331 332-333-334 335-336-337 338-339-340 341-342-343 344-345-346 347-348-349 350-351-352 353-354-355 356-357-358 359-360-361 362-363-364 365-366-367 368-369-370 371-372-373 374-375-376 377-378-379 380-381-382 383-384-385 386-387-388 389-390-391 392-393-394 395-396-397 398-399-400 401-402-403 404-405-406 407-408-409 410-411-412 413-414-415 416-417-418 419-420-421 422-423-424 425-426-427 428-429-430 431-432-433 434-435-436 437-438-439 440-441-442 443-444-445 446-447-448 449-450-451 452-453-454 455-456-457 458-459-460 461-462-463 464-465-466 467-468-469 470-471-472 473-474-475 476-477-478 479-480-481 482-483-484 485-486-487 488-489-490 491-492-493 494-495-496 497-498-499 500-501-502 503-504-505 506-507-508 509-510-511 512-513-514 515-516-517 518-519-520 521-522-523 524-525-526 527-528-529 530-531-532 533-534-535 536-537-538 539-540-541 542-543-544 545-546-547 548-549-550 551-552-553 554-555-556 557-558-559 560-561-562 563-564-565 566-567-568 569-570-571 572-573-574 575-576-577 578-579-580 581-582-583 584-585-586 587-588-589 590-591-592 593-594-595 596-597-598 599-600-601 602-603-604 605-606-607 608-609-610 611-612-613 614-615-616 617-618-619 620-621-622 623-624-625 626-627-628 629-630-631 632-633-634 635-636-637 638-639-640 641-642-643 644-645-646 647-648-649 650-651-652 653-654-655 656-657-658 659-660-661 662-663-664 665-666-667 668-669-670 671-672-673 674-675-676 677-678-679 680-681-682 683-684-685 686-687-688 689-690-691 692-693-694 695-696-697 698-699-700 701-702-703 704-705-706 707-708-709 710-711-712 713-714-715 716-717-718 719-720-721 722-723-724 725-726-727 728-729-730 731-732-733 734-735-736 737-738-739 740-741-742 743-744-745 746-747-748 749-750-751 752-753-754 755-756-757 758-759-760 761-762-763 764-765-766 767-768-769 770-771-772 773-774-775 776-777-778 779-780-781 782-783-784 785-786-787 788-789-790 791-792-793 794-795-796 797-798-799 800-801-802 803-804-805 806-807-808 809-810-811 812-813-814 815-816-817 818-819-820 821-822-823 824-825-826 827-828-829 830-831-832 833-834-835 836-837-838 839-840-841 842-843-844 845-846-847 848-849-850 851-852-853 854-855-856 857-858-859 860-861-862 863-864-865 866-867-868 869-870-871 872-873-874 875-876-877 878-879-880 881-882-883 884-885-886 887-888-889 890-891-892 893-894-895 896-897-898 899-900-901 902-903-904 905-906-907 908-909-910 911-912-913 914-915-916 917-918-919 920-921-922 923-924-925 926-927-928 929-930-931 932-933-934 935-936-937 938-939-940 941-942-943 944-945-946 947-948-949 950-951-952 953-954-955 956-957-958 959-960-961 962-963-964 965-966-967 968-969-970 971-972-973 974-975-976 977-978-979 980-981-982 983-984-985 986-987-988 989-990-991 992-993-994 995-996-997 998-999-1000	TECTURA PROJECTS 101-102-103 104-105-106 107-108-109 110-111-112 113-114-115 116-117-118 119-120-121 122-123-124 125-126-127 128-129-130 131-132-133 134-135-136 137-138-139 140-141-142 143-144-145 146-147-148 149-150-151 152-153-154 155-156-157 158-159-160 161-162-163 164-165-166 167-168-169 170-171-172 173-174-175 176-177-178 179-180-181 182-183-184 185-186-187 188-189-190 191-192-193 194-195-196 197-198-199 200-201-202 203-204-205 206-207-208 209-210-211 212-213-214 215-216-217 218-219-220 221-222-223 224-225-226 227-228-229 230-231-232 233-234-235 236-237-238 239-240-241 242-243-244 245-246-247 248-249-250 251-252-253 254-255-256 257-258-259 260-261-262 263-264-265 266-267-268 269-270-271 272-273-274 275-276-277 278-279-280 281-282-283 284-285-286 287-288-289 290-291-292 293-294-295 296-297-298 299-300-301 302-303-304 305-306-307 308-309-310 311-312-313 314-315-316 317-318-319 320-321-322 323-324-325 326-327-328 329-330-331 332-333-334 335-336-337 338-339-340 341-342-343 344-345-346 347-348-349 350-351-352 353-354-355 356-357-358 359-360-361 362-363-364 365-366-367 368-369-370 371-372-373 374-375-376 377-378-379 380-381-382 383-384-385 386-387-388 389-390-391 392-393-394 395-396-397 398-399-400 401-402-403 404-405-406 407-408-409 410-411-412 413-414-415 416-417-418 419-420-421 422-423-424 425-426-427 428-429-430 431-432-433 434-435-436 437-438-439 440-441-442 443-444-445 446-447-448 449-450-451 452-453-454 455-456-457 458-459-460 461-462-463 464-465-466 467-468-469 470-471-472 473-474-475 476-477-478 479-480-481 482-483-484 485-486-487 488-489-490 491-492-493 494-495-496 497-498-499 500-501-502 503-504-505 506-507-508 509-510-511 512-513-514 515-516-517 518-519-520 521-522-523 524-525-526 527-528-529 530-531-532 533-534-535 536-537-538 539-540-541 542-543-544 545-546-547 548-549-550 551-552-553 554-555-556 557-558-559 560-561-562 563-564-565 566-567-568 569-570-571 572-573-574 575-576-577 578-579-580 581-582-583 584-585-586 587-588-589 590-591-592 593-594-595 596-597-598 599-600-601 602-603-604 605-606-607 608-609-610 611-612-613 614-615-616 617-618-619 620-621-622 623-624-625 626-627-628 629-630-631 632-633-634 635-636-637 638-639-640 641-642-643 644-645-646 647-648-649 650-651-652 653-654-655 656-657-658 659-660-661 662-663-664 665-666-667 668-669-670 671-672-673 674-675-676 677-678-679 680-681-682 683-684-685 686-687-688 689-690-691 692-693-694 695-696-697 698-699-700 701-702-703 704-705-706 707-708-709 710-711-712 713-714-715 716-717-718 719-720-721 722-723-724 725-726-727 728-729-730 731-732-733 734-735-736 737-738-739 740-741-742 743-744-745 746-747-748 749-750-751 752-753-754 755-756-757 758-759-760 761-762-763 764-765-7
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FINISHES LEGEND

FLOORS:

F1: FULLY FLEXIBLE TILES (CORROSION RESISTANT) & ANTI-SLIPpery
300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification 581:1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement sand subfloor. Fittings to include, ribbed angle files where there is a change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Slips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F2: PORCELAIN TILES - MATI
600 x 600 x10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With thickness/Specification in strict compliance to manufacturer's specifications and SABS specification. Fittings to include, ribbed angle files where there is a change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Slips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CEMENT FLOOR
50mm x 20mm x 1.008 PFV staple fibre capel tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with BS 1307 Wear Class 4 (heavy duty), laid with approved adhesive on 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, and DN S4324 on wire test and 60 body feet at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.

F4: CEMENT SAND SCREED
30mm thick potted cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.

F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS
60mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approved and graded in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or latest revision.

F6: GRANULITIC FINISH
22mm thick unsealed Granulitic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve laid on special in panels not exceeding 10m², divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)
220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a herringbone pattern to the architect's approval.

F8: SELF FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPpery)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586. With Static Dissipative Properties Throughout Thickness, Engineered for ISO or SD (anti-static) Protection Vinyl Sheet, Laid on Self Levelled Smooth Screed glued with conductive adhesive to SABS 070 or latest revision in accordance to manufacturer's instructions And Installed by Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor in Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

F9: GRAVEL FINISH ON SAND LAYER
30mm Gravel On Compacted Sand Layer Base as Per PEZ Details Installed in All Duct Chambers Accommodating Sanitary Services.

SKIRTING:

S1: HARDWOOD OR EQUAL AND APPROVED
18 x 75mm x 20mm Moulded Hardwood Skirting To comply with SANS 1099, fixed to walls in long lengths with sprayed heading joints and mitred corners with screws and plugs of centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

S2: CERAMIC TILE SKIRTING
600mm wide x 1000mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturer's specifications and SABS specification, with Cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle files where there is a change of level. Colour and pattern to architects approval.

S3: CEMENT SAND SCREED
75mm high 20 mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083, or latest revision.

WALL FINISHES:

W1: FACE BRICK
F8 Face brick in common running bond to comply with SABS 227 and forming part of the structural work.

W2: EMULSION (PVA) PAINT - FULL HEIGHT
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed with 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.

W3: ENAMEL PAINT
2 no. coats matt (egg shell) finish white (enamel) paint to SABS 650, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.

W4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO
Combination of 600mm wide x 300mm x 7mm thick high glazed ceramic tiles to Specification 'S5', laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification 'R2' To Comply with SABS 681 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

W5: CERAMIC WALL TILES - FULL HEIGHT
600mm x 300mm x 7mm thick high glazed ceramic tiles to comply with SABS 22 or latest revision, laid on 15 mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 standard. All to be manufactured and installed in strict compliance SABS 22 standard.

CEILING AND CORNICE:

C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
9mm Gypsum board ceiling EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc Rhinobond Strap Fast' Grabber Screws 22mm at maximum 150mm centres. Apply 1. Gyproc Rhinobond to all joints and trim the ceiling using Gyproc Rhinobond.

C2: FIBRE CEMENT BOARDS (IS JOINTED)
6mm thick Gyproc Restar 6mm fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10171-5) fixed to EX 38mm x 50mm timber bracing installed at maximum 400mm centres using Gyproc Rhinobond Strap Fast' Grabber Screws 22mm at maximum 150mm centres with all necessary accessories, finished with 3 no. coats of super PVA external quality paint colour to PA's approval. Gyproc Rhinobond to all joints and trim the ceiling using Gyproc Rhinobond.

C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED
1200mm x 600mm X 15mm Gyproc Calotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn TR 8 Main Tees (8.4mm thickness, 2150 gaw. coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn TR8V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the file notch. All the notches to be in line. Suspend all full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 603 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

C4: EMULSION (PVA) PAINT OR EQUAL AND APPROVED
Emulsion (PVA) Paint on primed Plastered Spd 3no. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hem-hydrate gypsum plaster on concrete slab.

ROOF COVERING AND INSULATION:

R1: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheet: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 350 (3). The profile shall have three trapezoidal ribs at 203mm centres giving a net cover of 456mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 203mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with 'Global Coat' or 'Chromadek Coat' and laid on structural timber/steel structure incorporating all necessary accessories such as fastenings and eave covers in strict compliance to manufacturer's instructions.

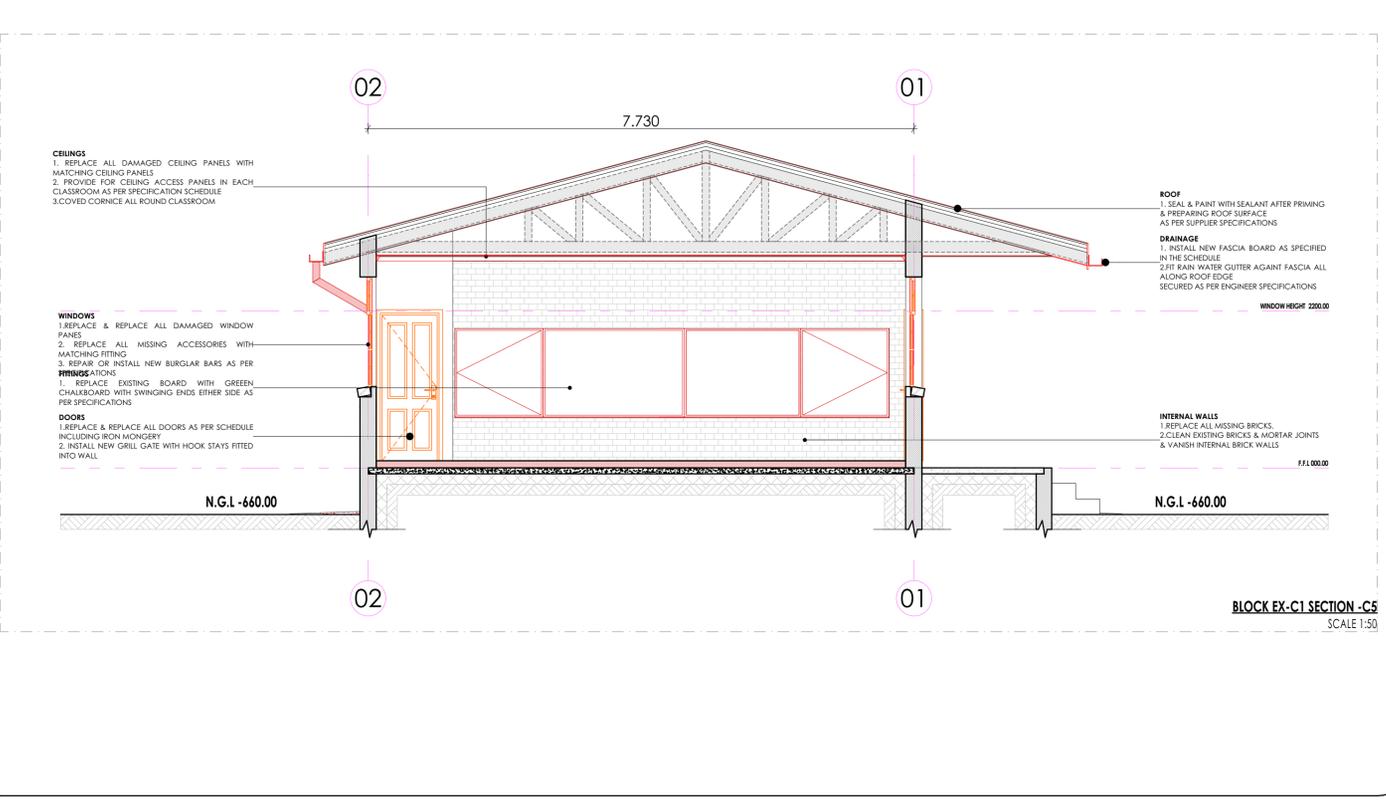
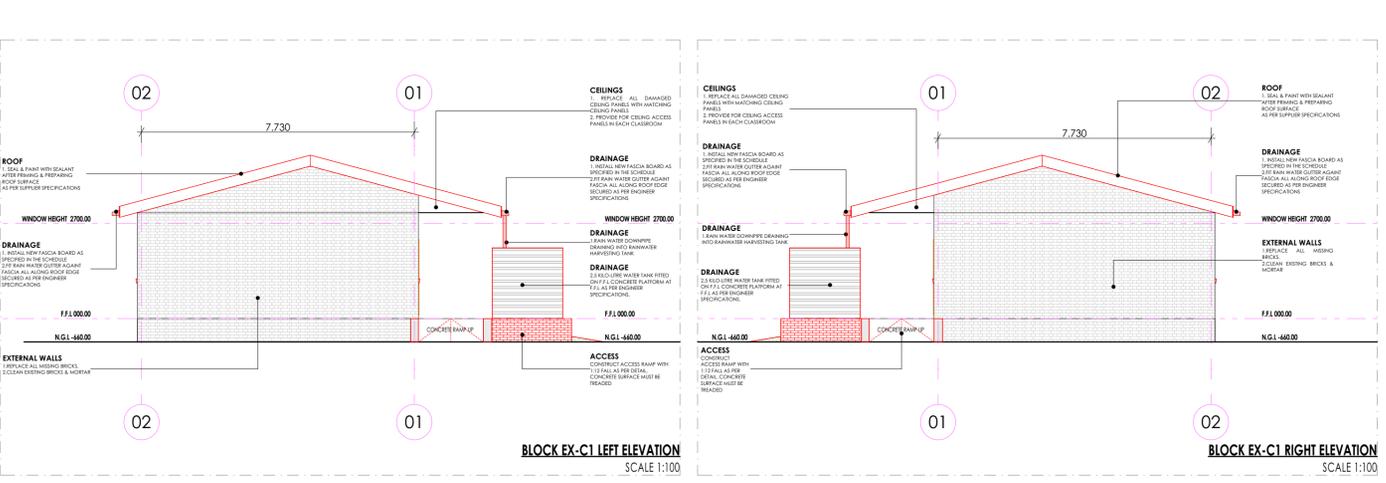
R2: CEILING BRICKS
1 no. where there are acoustic ceilings suspended board, a heavy duty 'Aluminium isolation foil' shall be installed AND 2 where the steel walls is exposed, a 50mm 'Fibroglass' manufactured from noncombustible glass fibres and mineral-wool setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white melisized foil.

R3: Galvanized Steel Gully Grates
150mm Wide x 100mm Deep x 4.8mm Eave Gully of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Faced To Painted Fibre Cement Facia Board Together with standard accessories discharging into Rainwater Downpipes.

R4: Downpipe
110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns laid to brickwork or steel including brackets and self-tapping screws to Manufacturer Installation instructions.

R5: Facia board
750 x 10 mm Fibre-Cement Facia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

Architectural drawings showing door and window schedules for Block EX-C1. Includes tables for DOOR SCHEDULE D-01 and WINDOW SCHEDULE W-01 with columns for QUANTITY, DOOR DESCRIPTION, FRAME, FRAME FINISH, DOOR FINISH, IRON MONGERY, and HINGES. Includes scale 1:100.



SANITARY SCHEDULE

WC'S URINALS & SHOWER

W1: CERAMIC STANDARD WC (C/C) - CONCEALED CISTERN
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 497 & Fitted with 'Jazz Thermalsoft Plastic Seat'. Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with blank flush plate.

W2: CERAMIC PARALEGIC WC
Vitreous china 90° outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern installed complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

W3: CERAMIC PARALEGIC WC (C/C) - CONCEALED CISTERN
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 497 & Fitted with 'Jazz Thermalsoft Plastic Seat'. Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever. Blank flush plate & offset push button for passage access.

W4: CERAMIC STANDARD WC (BACK INLET)
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted complete with back inlet extension valve complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

W5: CERAMIC STANDARD WC (C/C)
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty thermalsoft seat, and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.

W6: CERAMIC WALL HUNG URINAL
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted complete with matching 7 litre pushbutton top dual flush cistern fitted with quality approved heavy duty thermalsoft seat, and complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards.

W7: SHOWER
20mm thick Enamelled steel shower tray 900x900x160 mm manufactured with anti slip pattern, with rounded internal corners, and 38 mm BSP graded waste fitting in corner position fitted with Shower set and complying with SABS 226 comprising of approved:
• Glazed Shower Cubicle with access door as per standard supply from manufacturer and sized to fit space configuration
• Overhead shower arm with wall flange.
• Chrome Plated Shower Head with anti-bacterial connector
• Chrome Plated Shower Diverter with wall sliding wall flanges and concealed connectors adjustable from 178mm to 203 mm centres. Shower tray to be recessed 50 mm into a 100mm high concrete plinth with exposed plinth face.

W8: WASH-HAND BASIN
W1: WASH & MIRROR TAP
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W9: DISABLED BASIN
200mm semi recessed lavatory basin to comply with SABS 497. In two top hole configuration fitted with 2 No chrome plated elbow action pillar-top, with 1/4 turn ceramic disc head and blue & Red indicators water applications and flanged backnut. chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W10: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W11: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W12: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W13: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W14: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W15: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W16: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W17: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W18: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W19: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W20: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W21: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W22: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W23: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W24: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W25: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W26: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W27: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W28: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W29: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

W30: MEDIC BASIN & FITTINGS (SICK BAY)
Vitreous china size 450x325mm oval self-priming vanity basin to comply with SABS 497 in one top hole configuration supplied without overflow and fitted with 2No. chrome plated tap with flanged backnut (code KM2.102) meeting tap, mounting kit and angle valves. 400mm long flexible inlets and chrome plated bottle top supplied with all necessary pipe connections. Faced with concealed wall bracket in accordance to the manufacturer's specifications.

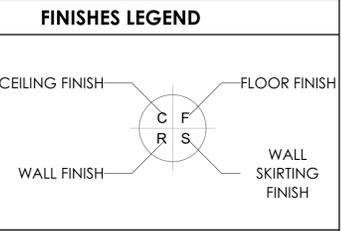


LEGEND table with symbols for NEW WALLS, EXISTING WALL TO BE RETAINED, EXISTING WALL TO BE DEMOLISHED, NEW FIXTURES & FITTING TO BE INSTALLED, and ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED.

NOTES: ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED

DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING

CONTRATORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT



SIGNATURE TABLE with columns for DISCIPLINE, SIGN, and DATE.

CLIENT, FIRE EXAMINER, PLAN CONTROL, ENVIRONMENTAL, ROADS / STORMWATER, WATER & SANITATION table.

REVISIONS table with columns for REV. NO., DATE, DESCRIPTION.

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA logo and address information.

PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION logo and contact information: MAKGOPELE SECONDARY - 918 521 309.

RESTORATIVES, REPAIRS & ADDITIONS table with CONTRACT - SECTION, DOCUMENTATION & PROCUREMENT, ARCHITECTURAL, and STAGE 04 ARCHITECTURAL.

3CLASSROOM BLOCK EX-C1 table with DRG No., DESIGN, DATE, and ITEM No.

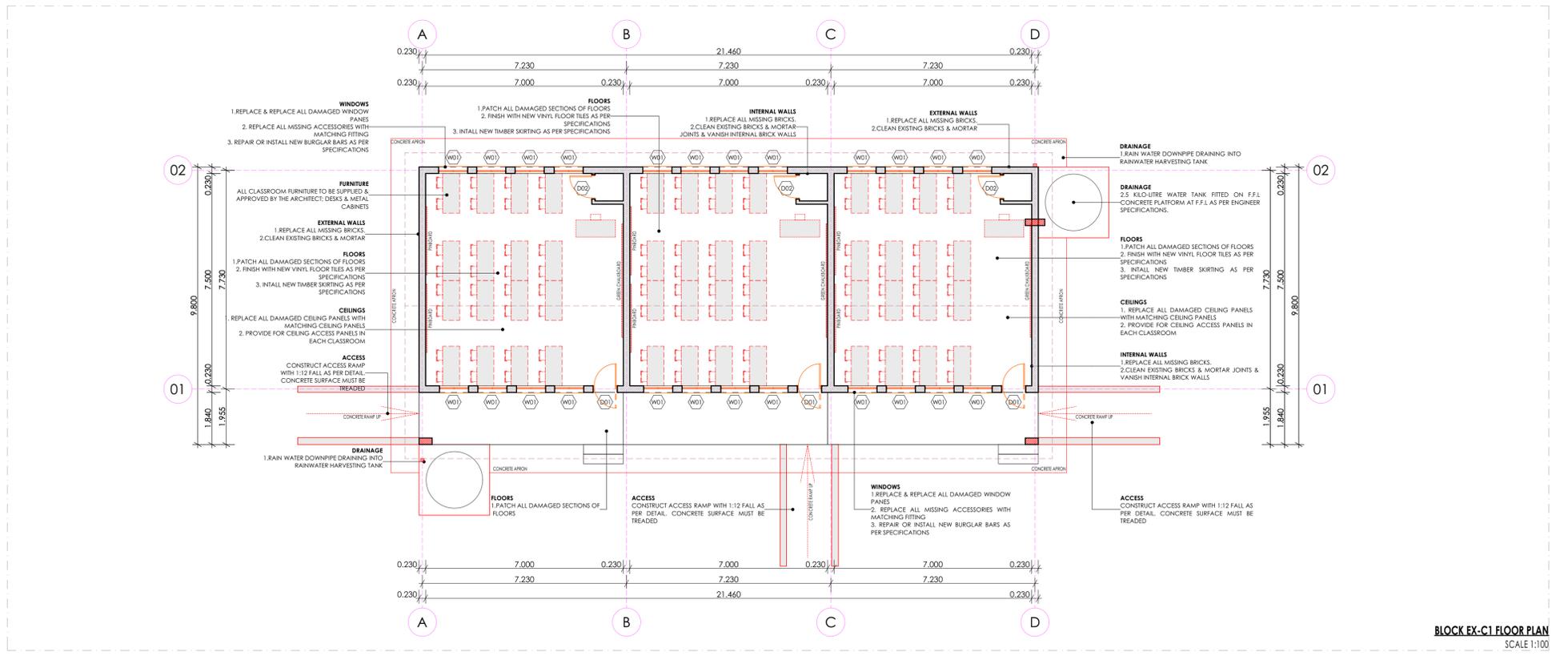
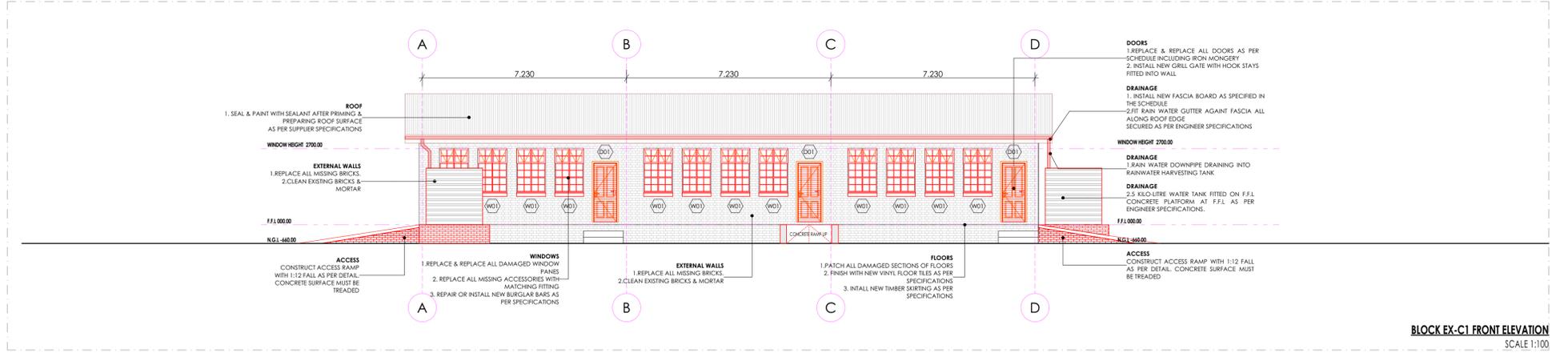
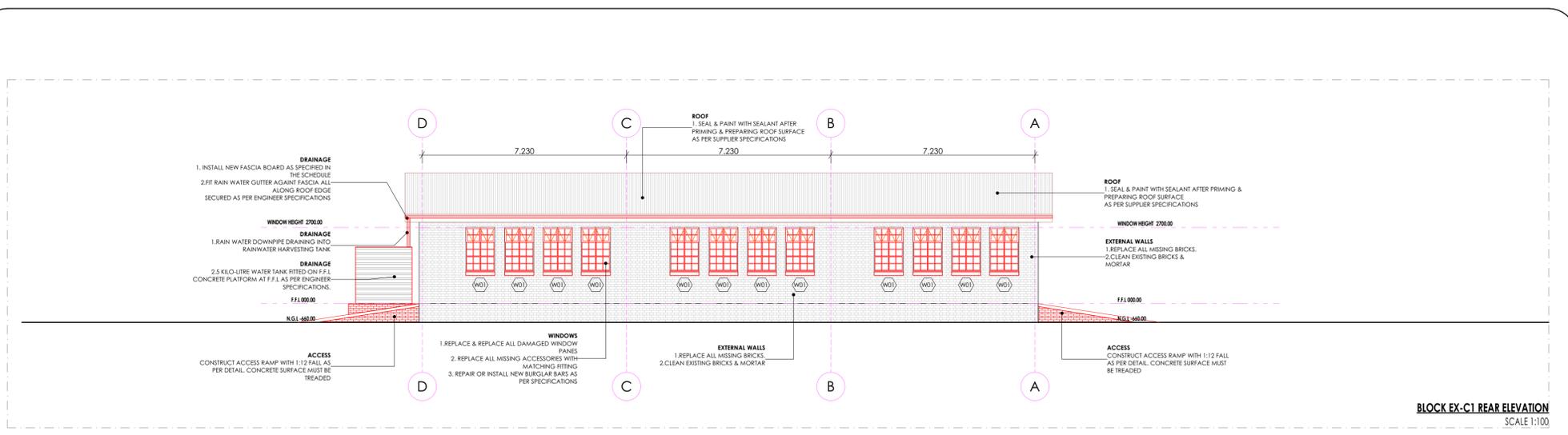
DATE, RESPONSIBLE PROFESSIONAL, PR. NUMBER table with columns for NAME, SIGN, and PR. NUMBER.

CONSULTANT TECTURA PROJECTS logo and contact information.

CONTRACTOR table with columns for CAD SYSTEM, AUTOCAD, PROJECT NUMBER, FILE NAME, SIZE, LDWP - PROF/16002/G14, and REV. 0.

FINISHES LEGEND

- FLOORS:**
- F1: FULLY FLEXIBLE TILES (CORROSION RESISTANT & ANTI-SLIPPER)**
300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification 581:1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement screed subfloor. Fittings to include, ribbed angle files where there is a change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
- F2: PORCELAIN TILES - MATT**
600 x 600 x 10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturer's instructions and SABS specification. Fittings to include, ribbed angle files where there is a change of level & Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.
- F3: CARPET TILES**
500mm x 500mm, 100% PEV staple fibre carpet tiles To Comply With SABS 1419 (heavy commercial) consisting of fibres set out on waterproof vinyl backing and to comply with EN 1307 Wear Class 4 (heavy duty), laid with approved adhesive and 30mm thick cement screeds in strict compliance with manufacturer's instructions. Carpet tiles to conform to BS 4790 on fire rating, on DN 3420 on wire test and 50 body test at less than 2kV at 25% RH on static electricity. Colour and pattern to architects approval.
- F4: CEMENT SAND SCREED**
30mm thick pozzolanic cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.
- F5: EXTERIOR MULTI COLOURED CONCRETE INTERLOCKING PAVERS**
65mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approval and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or Latest Revision.
- F6: GRANULITIC FINISH**
22mm thick unsealed Granulitic finish composed of one part cement, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve laid by specialist in panels not exceeding 10m², divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.
- F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)**
220mm x 197mm x 80 mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a herringbone pattern to the Architect's approval.
- F8: SEMI FLEXIBLE VINYL SHEETING (CORROSION RESISTANT/ANTI-SLIPPER)**
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS 586. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive adhesive to SABS 070 or Latest Revision In Accordance To Manufacturer's Instructions And Installed By Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor In Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity. Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.
- F9: GRAVEL FINISH ON SAND LAYER**
30mm Gravel On Compacted Sand Layer Base as Per P&E Details Installed in All Duct Chambers Accommodating Sanitary Services.
- SKIRTING:**
- S1: HARDWOOD OR EQUAL AND APPROVED**
15 x 75mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs of centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.
- S2: CERAMIC TILE SKIRTING**
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 22mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle files where there is a change of level. Colour and pattern to architects approval.
- S3: CEMENT SAND SCREED**
75mm high x 20mm thick hardened cement sand screed skirting covered at 50 mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance with SABS 1083 or latest revision.
- WALL FINISHES:**
- W1: FACE BRICK**
F88 face brick in common running bond to comply with SABS 227 and forming part of the structural work.
- W2: EMULSION (PVA) PAINT - FULL HEIGHT**
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.
- W3: ALKYD (ENAMEL) PAINT**
2 no. coats matt (egg shell) finish alkyd (enamel) paint to SABS 650, type 2 applied on plastered surfaces with 1 no coat alkali resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 681 grade 1, in accordance to manufacturer's instructions.
- W4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COMBO**
Combination of 600mm wide x 300mm x 7mm thick high glazed ceramic tiles to Specification "R5", laid on 15mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL paint to specification "R2" To Comply with SABS 681 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.
- W5: CERAMIC WALL TILES - FULL HEIGHT**
600mm x 300mm x 7mm thick high glazed ceramic tiles to comply with SABS 22 or latest revision, laid on 15mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 Standard. All to be manufactured and installed in strict compliance SABS 22 Standard.
- CEILING AND CORNICE:**
- C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED**
9mm Gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc Rhinobond Snap Point Grabber Screws 32mm at maximum 150mm centres. Apply Gyproc Rhinotape to all joints and skim the ceiling using Gyproc Rhinotile.
- C2: FIBRE CEMENT BOARDS (JOINTLESS)**
6mm thick Gyproc Restyle 7 fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10171-5) fixed to EX 38mm x 45mm timber bracing installed at maximum 400mm centres using Gyproc Rhinobond Snap Point Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 no. coats of super PVA external quality paint colour to PA's approval. Gyproc Rhinotape to all joints and skim the ceiling using Gyproc Rhinotile.
- C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED**
1200mm x 600mm x 15mm Gyproc Calotex Pin Perforated or Fine Fissured OR EQUAL & APPROVED laid into Donn ceiling grid and secured into place using Donn Hold Down Clips @ 200mm c/c. Donn Wall Angle M6 fixed to the perimeter wall using fixings at 300mm centres. Donn 138 FR Main Tees @ 4mm thickness, 150 g/m² coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Donn 138V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Donn Hanger Strap 19mm suitably fixed to the building structural members. Donn Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the tile notch. All fire notches to be in line. Suspend of full length 1200 Cross Tees at their mid-point using Donn Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 803 including all necessary accessories and installed in strict accordance to manufacturer's specifications.
- C4: EMULSION (PVA) PAINT OR EQUAL AND APPROVED**
Emulsion (PVA) Paint on Plastered Plastered Sabs 3no. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum plaster on concrete slab soff.
- ROOF COVERING AND INSULATION:**
- R1: EMBOSSED ROOFING SHEET (TWO SIDES)**
Roofing Sheets: 0.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 330 (3). The profile shall have three trapezoidal ribs at 203mm centres giving a net cover of 456mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs at 203mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with "Global Coat" or "Chromadek Colour" and laid on structural timber/steel structure incorporating all necessary accessories such as fasteners and eave cassettes in strict compliance to manufacturer's instructions.
- Insulation:** SHALL EITHER BE 1: where there are acoustic ceilings suspended board, a heavy duty "Aluminium insulation foil" shall be installed AND 2: where the steel work is exposed, a 50mm "Tecturafoam" manufactured from noncombustible glass fibres and thermo-setting resin binder supplied size 2400mm x 1200mm and 80kg/m³ and finished with white meltable foil.
- Galvanized Steel (GI) Gutter:** 150mm wide x 100mm Deep x 4.6mm Eaves Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest revision Fixed to Painted Fibre Cement Fascia Board Together with standard accessories discharging into Rainwater Downpipes.
- Downpipe:** 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to or built into walls or cast in concrete columns fixed to brickwork or steel including brackets and self-tapping screws to Manufacturer Installation instructions.
- Fascia board:** 750 x 10 mm Fibre-Cement Fascia/Barge Board, Screw Fixed To Truss Ends & Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.



ISSUED FOR TENDER

LEGEND

- NEW WALLS
- EXISTING WALL TO BE RETAINED
- EXISTING WALL TO BE DEMOLISHED
- NEW FIXTURES & FITTING TO BE INSTALLED
- ITEMS IN RED AND (OR) DASHED LINES ARE TO BE REPAIRED AND (OR) REPLACED

NOTES
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED
DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING
CONTRACTORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND

CEILING FINISH	C	F	FLOOR FINISH
WALL FINISH	W	R	WALL SKIRTING FINISH

SIGNATURE TABLE

DISCIPLINE	SIGN	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL		
ROADS & STORMWATER		
WATER & SANITATION		

REV. NO.	DATE	FIRST ISSUE FOR TENDER
0	JUL 21	FIRST ISSUE FOR TENDER

REVISIONS

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
PUBLIC WORKS, ROADS & INFRASTRUCTURE

INSTITUTION
MAKGOPHELE SECONDARY-918 521 309

RESTORATIVES, REPAIRS & ADDITIONS
CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

DISCIPLINE
ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION
DRAWING DESCRIPTION
3CLASSROOM BLOCK EX-C1

DRG No.	G14-201-01	PR. NUMBER	
DESIGN	SMIN	DRAWN	T.M
DATE	AS SHOWN	CHECK	

DATE	NAME	SIGN.	PR. NUMBER
NOV 2019	T. MANAYAZA		PrArch 43981757

DRAWING CO-ORDINATED

CONSULTANT

TECTURA PROJECTS

SAUTERHOE
BANKRUOD HOUSE
CORNHORNWEG 28/317
PO BOX 1415
PRETORIA 0001
TEL: +27 (0) 11 294 2000
FAX: +27 (0) 11 294 2001

NOORDHOEK
BANKRUOD HOUSE
CORNHORNWEG 28/317
PO BOX 1415
PRETORIA 0001
TEL: +27 (0) 11 294 2000
FAX: +27 (0) 11 294 2001

NORDBEEK
CORNHORNWEG 28/317
PO BOX 1415
PRETORIA 0001
TEL: +27 (0) 11 294 2000
FAX: +27 (0) 11 294 2001

ALSO IN NARBORU, KENYA AND GABORONE, BOTSWANA

CONTRACTOR

CAD SYSTEM	AUTOCAD	FILE NAME	
SIZE	PROJECT NUMBER	REV	
A1	LDPW - PROF/16002/G14		

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FINISHES LEGEND

FLOORS:

F1: FULLY FLEXIBLE TILES (Corrosive Resistant/ Anti-Slip)
300 x 300 x 2.0mm thick (colour type to architects approval), OR EQUAL AND APPROVED, quartz reinforced semi-flexible vinyl floor tiles to SABS Specification S81: 1992 (or later revision), and laid to SABS 070 (or later revision) and in accordance to manufacturer's specifications on cement screed subfloor. Fittings to include, ribbed angle files where there is a change of level. Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F2: PORCELAIN TILES - MATI
600 x 600 x 10mm thick matt porcelain tile to comply with SABS 1449 laid on approved pattern by an approved specialist to comply with SABS 107 and approved adhesives and grout on screeds With Thickness/Specification in strict compliance to manufacturer's specifications and SABS Specification. Fittings to include, ribbed angle files where there is a change of level and Movement Joints of 6mm Wide With Patent Aluminium Movement Joints Strips Consisting Of Synthetic Fibre Inserts Installed At Intervals As Per Manufacturer's Instruction. Colour and pattern to architects approval.

F3: CEMENT SAND SCREED
30mm thick potted cement sand screed with 13mm Stone Nominal aggregate for topping to comply with SABS 1083 or latest revision for concrete.

F4: EXTERIOR MULTI-COLOURED CONCRETE INTERLOCKING PAVERS
60mm thick multi-coloured concrete pavers laid on sand bedding to civil/structural engineer's specification in approved pattern and compacted to approved and grouted in strict accordance to manufacturer's specifications. All to be manufactured and installed in strict compliance to SABS 1058 or latest revision.

F5: GRANOUTCH FINISH
22mm thick unsealed Granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve laid by specialist in panels not exceeding 10m², divided with approved brass dividing strips. All to be manufactured and installed in strict compliance to the latest SABS approved standards. Colour, pattern and aggregate size to architects approval.

F7: INTERLOCKING PAVERS (RIGID PAVING/VEHICULAR WAYS)
220mm x 197mm x 80mm thick concrete interlocking pavers, 25 mpa, manufactured to SABS spec 1058, laid on sand bedding to civil/structural engineer's specification to a herringbone pattern to the Architect's approval.

F8: SEMI-FLEXIBLE VINYL SHEETING (CORROSIVE RESISTANT/ANTI-SLIPPERY)
2.5mm Thick Heavy Traffic Use, Corrosive Resistant & Anti-Slippery Vinyl Sheeting Semi-Flexible To Comply With SABS S86. With Static Dissipative Properties Throughout Thickness, Engineered for ESD or SD (anti-static) Protection Vinyl Sheet, Laid on Self-Levelled Smooth Screed glued with conductive adhesive to SABS 070 or latest Revision in Accordance to Manufacturer's Instructions And Installed by Approved Specialist. Joints Shall be Welded as Per Manufacturer's Specifications With No more than 2mm Gap. Clean & Polish Floor in Compliance With SABS 1042. Colour To Architect Approval On Sample Presentation. Contractor to provide Certificate of Static Current Conductivity, Contractor to provide Certificate of Static Current Conductivity, Corrosive resistant & Anti-Slippery.

F9: GRAVEL FINISH ON SAND LAYER
30mm Gravel On Compacted Sand Layer Base as Per PEZ Details Installed in All Duct Chambers Accommodating Sanitary Services.

S1: HARDWOOD OR EQUAL AND APPROVED
18 x 75mm x 20mm Moulded Hardwood Skirting to comply with SANS 1099, fixed to walls in long lengths with splayed heading joints and mitred corners with screws and plugs of centres not exceeding 600mm, and fixed with a 19mm x 19mm quadrant beading. The skirting to be varnished with 3no. coats of egg shell clear varnish to comply with SABS/SANS 381 type 1.

S2: CERAMIC TILE SKIRTING
600mm wide x 100mm high x 7mm thick matt porcelain tile to comply with SABS 1449 laid with approved adhesives and grout on 20mm thick screeds in strict compliance to manufacturer's instructions and SABS specification, with Cove base and straight tops. Complete with corner and top trims. Fittings to include, ribbed angle files where there is a change of level. Colour and pattern to architects approval.

S3: CEMENT SAND SCREED
75mm high x 20mm thick hardened cement sand screed skirting covered at 50mm dia. to form a continuous joint with the adjoining screed floor finish to PA's approval. All to be manufactured and installed in strict compliance With SABS 1083, or latest revision.

WALL FINISHES:

F1: FACE BRICK
F8 Face brick in common bonding bond to comply with SABS 227 and forming part of the structural work.

F2: EMULSION (PVA) PAINT - FULL HEIGHT
2 no. coats of PVA matt finish emulsion paint to SABS 1584 applied on plastered surface primed and with 1 no. coat undercoat to SABS 881 grade 1, in accordance to manufacturer's instructions.

F3: ACRYLIC ENAMEL PAINT
2 no. coats matt (egg shell) finish acrylic (jenamel) paint to SABS 650, type 2 applied on plastered surfaces with 1 no. coat acid resistant primer to SABS 1416 and 1 no. coat undercoat to SABS 881 grade 1, in accordance to manufacturer's instructions.

F4: GLAZED CERAMIC WALL TILES / ENAMEL PAINT COAT
Combination of 600mm wide x 300mm x 7mm thick high glazed ceramic tiles to Specification 'S5', laid on 15mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications laid from finish floor level to window level AND ENAMEL, paint to specification 'R2' to comply with SABS 650 or latest revision applied from 2100 mm above finished floor level to ceiling height all in strict compliance to manufacturer's instructions. All to be manufactured and installed in strict compliance to the latest SABS Standards.

F5: CERAMIC WALL TILES - FULL HEIGHT
600mm x 300mm x 7mm thick high glazed ceramic tiles to comply with SABS 22 or latest revision, laid on 15mm thick plaster prepared to receive wall tiles fixed with approved adhesives and grout in compliance to manufacturer's specifications and government standard specifications. Tiles to be laid to full ceiling height. All to be manufactured and installed in strict compliance SABS 22 standard. All to be manufactured and installed in strict compliance SABS 22 standard.

CEILING AND CORNICE:

C1: 9mm GYPSUM BOARDS FLUSH PLASTERED CEILINGS OR EQUAL AND APPROVED
'GypCel Classic' gypsum plasterboard ceiling EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing) fixed to timber bracing installed at maximum 300mm centres using Gyproc Rhinobond Strap Paint Grabber Screws 32mm at maximum 150mm centres. Apply Gyproc Rhinobond to all joints and trim the ceiling using Gyproc Rhinobond.

C2: FIBRE CEMENT BOARDS (IN JOINTS)
6mm thick GypCel FibreCel fibre cement ceiling boards or EQUAL & APPROVED consisting of 1 layer Gyproc Rhinobond 9mm (locally manufactured, ISO 9001 & 14001 certification, recycled paper content, EcoSpecifier listing, non-combustible to SANS 10171-5) fixed to EX 38mm x 50mm timber bracing installed at maximum 400mm centres using Gyproc Rhinobond Strap Paint Grabber Screws 32mm at maximum 150mm centres with all necessary accessories, finished with 3 no. coats of super PVA external quality paint colour to PA's approval. Gyproc Rhinobond to all joints and trim the ceiling using Gyproc Rhinobond.

C3: PATENT SUSPENDED ACOUSTIC TILES OR EQUAL AND APPROVED

1200mm x 600mm X 15mm Gyproc Calotex Pin Perforated or Fine Fibred OR EQUAL & APPROVED laid into down ceiling grid and secured into place using Down Hold Down Clips @ 200mm c/c. Down Wall Angle M6 fixed to the perimeter wall using fittings at 300mm centres. Down 138 FR Main Tees (8.4mm thickness, 2150 gaw, coating, locally manufactured, recycled content, ISO 9001 & 14001 certification) at 1200 centres & Down 138V (1200 long) Cross Tees at 600 centres. Suspend main tees @ 1200mm c/c using Down Hanger Strap 19mm suitably fixed to the building structural members. Down Galvanized Hanger Strap 19mm at maximum 150mm on both sides of the file notch. All file notches to be in file. Suspend full length 1200 Cross Tees at their mid-point using Down Hanger Strap 19mm suitably fixed to the building structural members. All to comply with latest SANS 603 including all necessary accessories and installed in strict accordance to manufacturer's specifications.

C4: EMULSION (PVA) PAINT OR EQUAL AND APPROVED

Emulsion (PVA) Paint on Stamped Prefabricated 3no. coats of PVA emulsion ceiling paint to latest SANS 1584 approved on 6mm thick light weight hemi-hydrate gypsum panel on concrete slab.

ROOF COVERING AND INSULATION:

R01: EMBOSSED ROOFING SHEET (TWO SIDES)
Roofing Sheets: 1.58mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISO 550 (3). The profile shall have three trapezoidal ribs at 200mm centres giving a net cover of 456mm. The ribs shall be 41mm and provide capillary breaks. The male rib shall have spurs of 28mm centres to ensure a positive double interlocking action at side-laps. Each span shall incorporate two stiffener ribs. Profiled roofbolts to be coated on both sides with 'Global Coat' or 'Chromalox COAT' and laid on structural timber/steel structure incorporating all necessary accessories such as fastenings and eave cassettes in strict compliance to manufacturer's instructions.

R02: SMALL DRAIN TRAY
Where there are acoustic ceilings suspended board, a heavy duty 'Aluminium siphonator foil' shall be installed AND 2 where the steel work is exposed, a 300mm 'Tactobond' manufactured from noncombustible glass fibres and thermo-setting resin bonded supplied size 2400mm x 1200mm and 80kg/m² and finished with white meltable foil.

Galvanized Steel (GGI) Gutter: 150mm Wide x 100mm Deep x 4.6mm Eave Gutter of Commercial Grade Steel With Class Z275 Galvanizing To Comply With SABS 934 or latest Revision Fixed To Painted Fibre Cement Facia Board Together with standard accessories discharging into Downpipes.

Dampstop: 110 x 110 x 0.6mm Thick Commercial Grade Galvanized Steel Sheet With Class Z275 Galvanizing To Comply With SABS 934 or Latest Revision to be built into walls or cast in concrete columns laid to brickwork or steel including brackets and self-tapping screws to Manufacturer Installation instructions.

Facia board: 250 x 110 mm Fibre Cement Facia/Barge Board, Screw Fixed To Tuss 6's Counter Batten With Countersunk Brass Screws. Prepare & Apply One Universal Undercoat & Two Coats Super Acrylic P.V.A.

DOOR SCHEDULE:

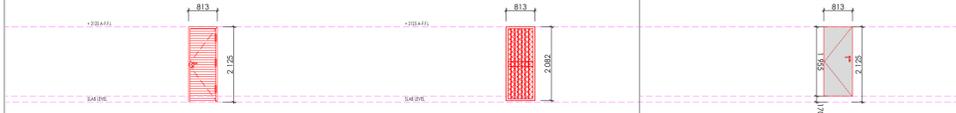
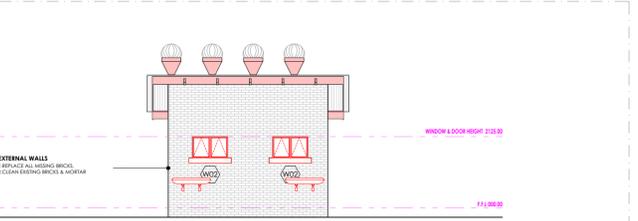


Table with 3 columns: EXTERIOR DOOR, BURGLAR DOOR (SINGLE), INTERIOR DOOR. Each column contains DOOR DESCRIPTION, QUANTITY, FRAME, FRAME FINISH, DOOR FINISH, IRON MONGERY, and HINGES.

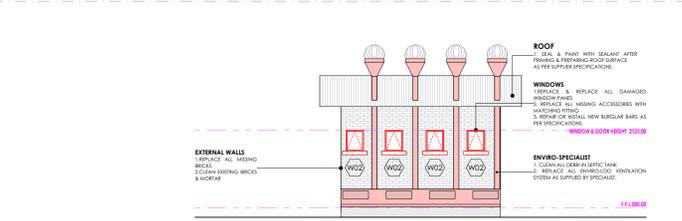
BLOCK EX-TI DOOR SCHEDULE

SCALE 1:100



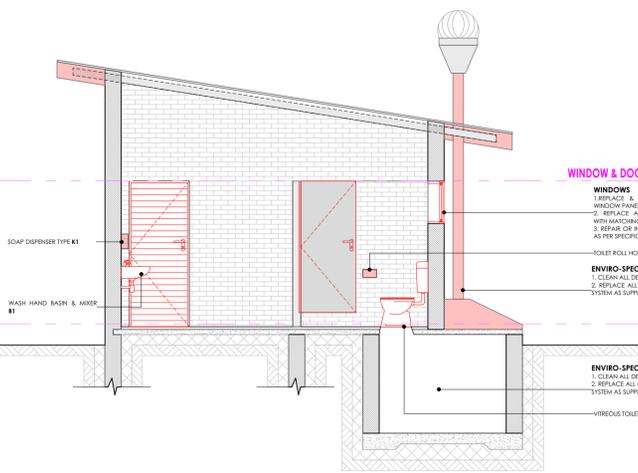
BLOCK EX-TI FRONT ELEVATION

SCALE 1:100



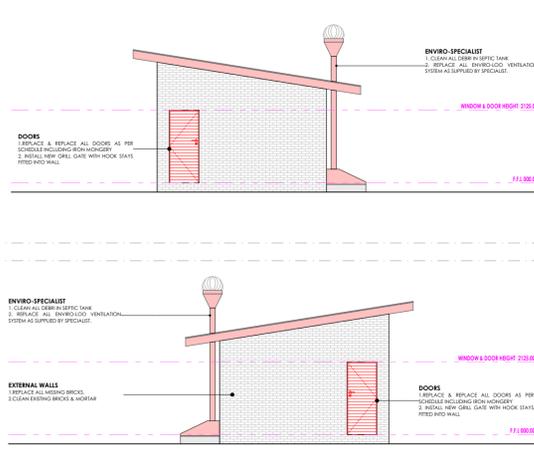
BLOCK EX-TI REAR ELEVATION

SCALE 1:100



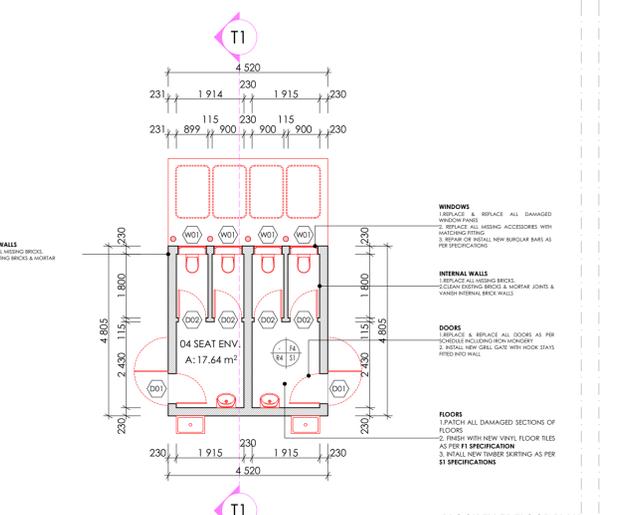
BLOCK EX-TI SECTION T5

SCALE 1:50



BLOCK EX-TI SIDE ELEVATION

SCALE 1:100



BLOCK EX-TI FLOOR PLAN

SCALE 1:100

WINDOW SCHEDULE table with columns: WINDOW DESCRIPTION, QUANTITY, FRAME, GLASS, WINDOW FITTINGS, IRON MONGERY, HINGES. Includes descriptions for W01 and W02.

BLOCK EX-TI WINDOW SCHEDULE

SCALE 1:100

SANITARY SCHEDULE

WC'S URINALS & SHOWER

W1: CERAMIC STANDARD WC (CC) - CONCEALED CISTERN
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 497 & Fitted with 'Jazz Thermo Seal' Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with blank flush plate.

W2: CERAMIC PARALEGIC WC
Vitreous china 90° outlet or equal and approved, top inlet closed rim back-to-wall pan to comply with SABS 497. Fitted with Cistern installed complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

W3: CERAMIC PARALEGIC WC (CC) - CONCEALED CISTERN
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 497 & Fitted with 'Jazz Thermo Seal' Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever. Blank flush plate & offset push button for passage access.

W4: CERAMIC STANDARD WC (BACK INLET)
Vitreous china 90° outlet back inlet pan to comply with SABS 497. Fitted complete with back inlet exposed flush valve complete with all necessary fittings as per manufacturer's specifications and applicable SABS standards. Flush valve to be fitted with suitable extension lever.

W5: CERAMIC STANDARD WC (CC)
Vitreous china 90° outlet WC or equal and approved, top inlet closed rim back-to-wall pan. Floor Mounted to comply with SABS 497 & Fitted with 'Jazz Thermo Seal' Fitted with Concealed Flushing Cistern for WC 6-7 litres adjustable with small discharge valve access pneumatic discharge valve installed with dual flush ability & complete with all necessary fittings to manufacturer's specification and applicable SABS standards. Flush valve to be fitted with suitable extension lever. Blank flush plate & offset push button for passage access.

W6: CERAMIC WALL HUNG URINAL
Vitreous china 90° outlet back inlet pan to comply with SABS 497. Supplied with suitable 38mm CP domical girting, CP top inlet spreader and two hanger brackets and fitted with exposed flush valve, and suitable bottle trap chrome finish as per manufacturer's specifications and applicable SABS standards.

S01: SHOWER
2mm Thick Enamelled steel shower tray 900x900x160 mm manufactured with anti-slip pattern, with rounded internal corners, and 38 mm BSP grated waste fitting in corner position fitted with Shower tray and complying with SABS 226 comprising of approved:
• Gated Shower Cubicle with access door as per standard supply with manufacturer and sized to fit spaced confinement.
• Overhead shower arm with wall flange.
• Chrome Plated Shower Head with dual-jointed connector.
• Chrome Plated Shower Diverter mixer-wall type with sliding wall flanges and concealed connectors adjustable from 178mm to 203mm centres. Shower tray to be handed 50 into a 100mm high concrete plinth with exposed plinth face.

WASH-HAND BASIN

W1: WASH & MIRROR TAP
Vitreous china 90° outlet wash basin 560 x 415mm rounded 'Tuscan', OR EQUAL AND APPROVE basin to comply with SABS 497 with single tap hole configuration supplied with integrated overflow and chinistry hole with 'Tuscan' pedestal and fitted with 'No. Cobra Waterjet' 15mm chrome push-button operating tap with flanged baket (code KM120) meeting tap, 300-32 CP anti-leak plug with angle valve, 300 basin waste, 365/40 CP toilet trap, mounting kit and angle valves.

W2: DISABLED BASIN
200mm semi rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and blue & Red indicators water applications and flanged baket, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fitted with concealed wall bracket in accordance to the manufacturer's specifications.

W3: WHITE GLAZED PORCELAIN WASH VANITY
Ceramic freecy size 450x350mm oval self-priming vanity basin to comply with SABS 497 in one tap hole configuration supplied without overflow and fitted with 'No. Cobra Waterjet' 15mm chrome push-button operating tap with flanged baket (code KM120) meeting tap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connections. Basins mounted on cabinet or vanity job with silicon bead between contact areas in strict accordance to manufacturer's specifications.

W4: SMALL BASIN & 2 TAPSTRAY & SHOWER SET (FOR WORKSHOPS)
Vitreous china size 450x300mm wash basin to comply with SABS 497 in 2 tap hole configuration supplied with integrated overflow and chinistry hole with 2No. pillar-top, chrome plated anti-leak plug with granded bottle trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connections. All brackets and fixing accessories in strict accordance to the manufacturer's specifications.

W5: URINAL BASIN (No. TAP FOR LABS)
Vitreous china size 450x300mm heavy duty basin in one tap hole configuration to comply with SABS 497 and R15 hole plugged and fitted with 'No. Cobra Waterjet' 15mm chrome push-button operating tap with flanged baket, chrome plated bottle trap, mounting kit and angle valves with 400mm long flexible inlets supplied with all necessary pipe connections. Fitted to wall using 2No. Semi-concealed cast iron brackets in accordance to the manufacturer's specifications.

W6: MEDIC BASIN & SICK BAY
Vitreous china size 400mm x 300mm rounded lavatory basin to comply with SABS 497, in two tap hole configuration fitted with 2 No. chrome plated Elbow action pillar-top, with 1/4 turn ceramic disc head and blue & Red indicators water applications and flanged baket, chrome plated waste, chrome plated 32mm standing overflow tube, chrome plated bottle trap supplied with all necessary pipe connections. Fitted with concealed wall bracket in accordance to the manufacturer's specifications.

Combination of sanitaryware, accessories and general fittings comprising of:
• Mirror type K
• Paper towel dispenser KB and bin type K3.
• Soap dispenser type K5.
• Spoutback comprising 2no. rows of wall tile finish R5 as per finishes schedule and grout in compliance to manufacturer's specifications and government standard specifications. Installation heights as indicated in the drawings.

SINKS:

X1: STAINLESS STEEL SINK
Stainless steel 1000 x 457mm inset single end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboard elsewhere measured). Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer-wall type, chrome plated swivel Outlet, adjustable and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

X2: STAINLESS STEEL SINK
Stainless steel 1500 x 457mm inset double end bowl with recessed drainage ledge and folded edges. Bowl to be fitted to kitchen cupboard (cupboard elsewhere measured). Grade 304 (18/10) Stainless Steel sink to comply with SABS 906 fitted with: Approved Sink mixer-wall type, with chrome plated swivel swivel Outlet, adjustable wall flanges and supplied with suitable accessories in accordance to manufacturer's specifications. Sink installation height = 900mm AFFL.

X3: CERAMIC SINK
Ceramic freecy 425 x 335 x 180 mm rectangular laboratory sink without overflow, with a centre end waste outlet, fitted to the wall on two semi-concealed brackets supplied with all necessary accessories (all to be acid resistant)

X4: SINGLE WASH TROUGH (Inset) & 2no. TAPS
800mm x 500mm inset wash trough manufactured from grade 18/10 S.S. stainless steel with radius internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2no. CP bibbits - plain extended chrome plate, complete with sliding wall flanges, Un-latched sink waste with back nut, plug with strip, chain and stay, CP 'T' trap, with deep seal and cleaning eye. Rough brass Sink installation height = 900mm AFFL. Cut out size 555 x 425mm.

X5: DOUBLE WASH TROUGH (Inset) & 2no. TAPS
1200 x 550 x 200mm Double bowl wall hung wash trough manufactured from grade 304 (18/10) S.S. stainless steel with radius internal corners and provision for a 40mm dia. outlet. Fitted with Approved 2no. wall type bibbits, with Swivel Outlet, adjustable wall flanges and exposed adjustable connectors. CP, Un-latched sink waste with back nut and plug with strip, CP Double drain back rubber deep seal 'T' trap. Sink mounted on 2no. 25mm square S5 gallow brackets, front leg and adjustable foot piece of height of 915mm AFFL.

SANITARY ACCESSORIES

K1: SS TOILET ROLL HOLDER / 2 ROLL
Standard stainless steel toilet roll holder / 2 roll / 150mm width x 270mm high 275mm depth Toilet Roll Holder manufactured from 18/10 Stainless Steel, surface satin finish, including screws and dowels and all other necessary accessories in accordance to manufacturer's specifications.

K2: SS WASTE BIN
325W x 525H x 200D Waste bin manufactured from 18/10 Stainless Steel, Surface Satin Finish, Material Thickness 1.5mm, including Screws, dowels and all necessary accessories in accordance to manufacturer's specifications.

K3: SANITARY BIN (PLASTIC)
190mm x 200mm x 600mm Plastic Sanitary Pedal bin with capacity of 100 Litres per pack Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

K4: SOAP HOLDER
Single semi-recessed ceramic soap dish Complete with all necessary accessories and installed in accordance to manufacturer's specifications.

K5: WALL GRAB BARS-PARALEGIC
Stainless steel 914 x 90 x 32mm diameter wall floor grab rail in satin polished finish complete with SS fixing screws and plastic wall plugs. Installed as per manufacturer's instructions.

K6: GRAB BARS (RIGHT-LEFT HAND)-PARALEGIC
Stainless steel 914 x 90 x 32mm diameter wall floor side toilet grab rail with 450mm high centre flange, in satin polished finish complete with SS fixing screws and plastic wall plugs. Installed as per manufacturer's instructions.

K7: PAPER TOWEL DISPENSER
330mmWx350mmHx230mmD tear and dry paper hand towel dispenser in stainless steel. Complete with screws, locking key, and all necessary accessories and installed in accordance to manufacturer's specifications.

K8: SOAP DISPENSER (HIGH-WALL MOUNTED)
115W x 270H x 110D Stainless Steel hand soap dispenser. Complete with screws, locking key, and all necessary accessories and installed in accordance to manufacturer's specifications.

K9: ALUMINIUM COAT HOOKS (MULTITRACK)
800mm Wide x 220mm High x 90mm High Aluminium Multitrack Hat and Coat Hook in multi-track two hooks Configuration With Anodised Silver Finish Complete with Screws.

K10: HAND DRYER (Hands free)
As per Electrical Engineers specification

K11: TOWEL RAIL
55mm dia. Polished 900mm long towel rail complete with all necessary accessories in accordance to manufacturer's specifications. Installation height as per architect's drawing.

K12: SHOWER CURTAIN RAIL (slight)
20mm dia. stainless chromum plated shower curtain rail 1300mm long with flanged ends and screws CP fixing height as per PA's drawing.

GENERAL FIXTURES

G1: DOOR PROTECTOR
200mm wide UPVC Door Protector manufactured in high impact resistant rigid UPVC (Colour Grey) and cut to door width from 3m length, installed strictly in accordance to manufacturer's specifications. Installation height 900mm above FF, or as indicated.

G2: PROTECTOR SCREENS
Full door UPVC Screen size 2240 x 1850mm (Including gaw 2240 x 1750mm) with wall-mounted code SC0400 Keystone Brackets Adjustable Set of 2, size 300mm. To be supplied complete with all accessories, and fitted in strict accordance with manufacturer's instructions.

G3: FINBARO 150W x 1000H
Finbaro size 1000mm H x 1500mm W comprising of laminated self board core priming material beaded all round with anodised aluminium channel surround mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

G4: FINBARO 300W x 1200H
Finbaro size 1200mm H x 300mm W comprising of laminated self board core priming material beaded all round with anodised aluminium channel surround mitred at the corners. To be fitted complete with fixing brackets, screws and wall plugs at 900mm above floor level.

G5: WINDOW NORMAL BINDS (vertical blinds)
127 mm vertical deco blinds with anodised aluminium headrail fitted with colour coordinated insert. All runners to be wheeled and fitted with individual clutch mechanism. All runners to be connected by stainless steel link. The mechanism to be operated by a nylon ball chain with a reduction gear ratio a fully enclosed cap. Blinds to be fixed to face (fixed over the window opening) by means of concealed type fixing brackets.

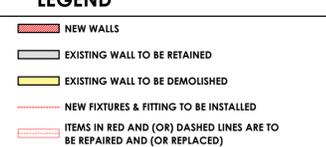
G6: FLOOR DRAIN
Cast iron flat type full-flow outlets size 110 mm diameter with centre ball, including connectors to downpipes.

G7: SS FLOOR EXPANSION JOINT COILER
Concealed heavy-duty stainless steel movement joint, with polyurethane infill (colour grey). To be installed within the tile surface over the 20mm expansion joints, in accordance to the manufacturer's specifications.

G8: CHALKBOARDS - GREEN SURFACE COLOUR
Vitex system 1000 standard WHITEBOARD or EQUAL & APPROVED vitreous enamelled steel utility school chalkboards wall-mounted size 480mm x 1140mm high manufactured in accordance with SABS Standard CE 36/2004 Edition 4 and suitable for Class 1 Heavy Duty applications, as defined therein. Enamel steel Utility chalk board surfaces to be matt and freely structured, olive green in colour (Vitreous Colour Reference - Chalk Board Green LM197/2), supplied complete with integral anodised aluminium chalk rail (ACR), fixing components and secured in position to brickwork. The Chalk boards are to be fixed in position strictly in accordance with the manufacturer's instructions.



LEGEND



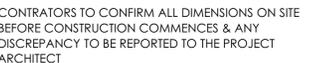
NOTES

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED

DIMENSIONS TO BE READ, NOT TO SCALED FROM THIS DRAWING

CONTRATORS TO CONFIRM ALL DIMENSIONS ON SITE BEFORE CONSTRUCTION COMMENCES & ANY DISCREPANCY TO BE REPORTED TO THE PROJECT ARCHITECT

FINISHES LEGEND



SIGNATURE TABLE

Table with columns: DISCIPLINE, SIGN, DATE. Includes rows for CLIENT, FIRE EXAMINER, ENVIRONMENTAL, ROADS & STORMWATER, WATER & SANITATION.

REVISIONS

Table with columns: REV. NO., DATE, DESCRIPTION. Includes a row for 0 JUL 21 FIRST ISSUE FOR TENDER.

LIMPOPO PROVINCIAL GOVERNMENT

PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION

MAKGOPELE SECONDARY - 918 521 309

RESTORATIVES, REPAIRS & ADDITIONS

DOCUMENTATION & PROCUREMENT

ARCHITECTURAL

WORK DESCRIPTION - SUB DIVISION

STAGE 04 ARCHITECTURAL

DRAWING DESCRIPTION

BLOCK EX-T01

DRG No. G14-301-01

DESIGN AS SHOWN

DATE NOV 2019

DESIGNER T. MANTYAZA

DATE AS SHOWN

DATE NOV 2019

DATE NOV 2019

DATE NOV 2019

DATE NOV 2019

DATE NOV 2019

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