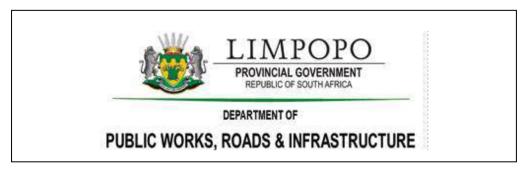
CONTRACT No. LDPWRI-B/20290



BID NUMBER: LDPWRI-B/20290

APPOINTMENT OF A CONTRACTOR FOR REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT

for

LIMPOPO DEPARTMENT OF EDUCATION (LDOE),

LIMPOPO PROVINCE

FRAMEWORK CATEGORY A (7GB 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 : <u>ModjadjiM@dpw.limpopo.gov.za</u>

CONTRACT No. LDPWRI-B/20290
Name of the Bidder :



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- T1.1 Tender notice and invitation to tender
- T1.2 Tender data

Part T2: Returnable documents

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- C1.1 Form of offer and acceptance
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Joint Venture Agreement (If Applicable)

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- C2.1 Part 1 Pricing Instructions
- C2.2 Part 2 Bills of Quantities

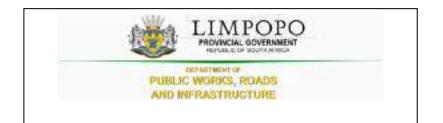
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Part C3: Scope of Works

- Special Notes to Bidders
- C3.1 C3.2 OHS Specifications

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CONTRACT No. LDPWRI-B/20290



PART T1: TENDERING PROCEDURE

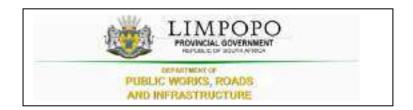
CONTRACT No. LDPWRI-B/20290

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 REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL PALISADE FENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE) for a period of 24 months. It is estimated that tenderers must have a CIDB contractor grading designation of 7 GB or higher.

The conditions of the CIDB Standard for 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	CLASSROOMS, 16 W. CONSTRUCTION OF BLOCK, NEW 16 SE FENCE AND EXTERN NABOOMSPRUIT, WA	A CONTRACTOR FOR REFURBISHMENT OF 12 ATERBORNE TOILETS AND NUTRITIONAL BLOCK, 10 CLASSROOMS, MEDIUM ADMINISTRATION EATER ENVIROLOO TOILETS, STEEL PALISADE AL WORKS AT MOKHARI SECONDARY SCHOOL IN ATERBERG DISTRICT FOR LIMPOPO DEPARTMENT FOR A PERIOD OF 24 MONTHS	
Tender Number	LDPWRI- B/20290		
Tender documents availability	Limpopo Department of Public Works, Roads and Infrastructure website		
Address for submission of tenders			
		ner 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</i> sign the attendance register in the name of the tendering entity. Addenda (if any) will	Meeting venue	No Image: No g venue As per Tender invite As per Tender invite As per Tender invite As per Tender invite As per Tender invite Compliance with mandatory or compulsory requirements Risk assessment on current projects Price Venue	
be issued only to those	Date		
tendering entities appearing on the attendance register)	Time:	As per Tender invite	
Evaluation criteria	 Risk assessme Price 		
Mandatory or Compulsory Requirements (failure to submit or comply with these requirements will lead to automatic disqualification)	Construction Industry I higher than a contractor the sum tendered, or a (1B) or 25(7A) of the eligible to have their ten Completed and signed Priced Bills of Quantitie Record of addenda to the Proposed amendments	Development Board (CIDB) with designation of 7 GB or or grading designation determined in accordance with a value determined in accordance with Regulation 25 Construction Industry Development Regulations are inders evaluated Form of Offer ess tender documents is and qualifications us of Administration compliance e (Valid CIDB)	



T1.2 Tender Data

Clause number	Tender Data
	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.
	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.
	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 <i>No. 36190 of 25 February 2013.</i> In this case, contractor shall provide a <i>minimum Contract Participation Goal (CPG) of 5%</i> of the total project value and develop targeted enterprises stated under C3 of this document.
	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:
C.1.1	The Employer is the Department of Public Works, Roads and Infrastructure

C.1.2	The Tender Part T1: Tendering procedures T1.1 Tender notice and invitation to tender T1.2 Tender data
	Part T2: Returnable documents T2.1 List of returnable documents T2.2 Returnable schedules
	The Contract Part C1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Joint Venture Agreement (If Applicable)
	The Contract Part C2: Pricing data C2.1 Pricing instructions C2.2 Bills of Quantities
	Part 3: Scope of work C3.1 Special Notes to Bidders C3.2 OHS Specifications
	Part 4: Site information C4 Drawings
C.1.4	The employer's representative is:
	Name : Mr K Modjadji Tel No. : 083 673 5436 Email : <u>ModjadjiM@dpw.limpopo.gov.za</u>
	However, all communications related to this bid should be directed to the persons indicated under Enquires on this tender document.
	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.
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	Eligibility in respect of CIDB grading
	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.
C2.2	Cost of tendering
	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.

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C.2.7	Compulsory site briefing
	A compulsory briefing meeting will be held as per Tender invite
	Failure to attend the site briefing will result in the bidders not being considered for the project
	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.
C.2.11	Alterations to the documents
	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
C.2.12	Alternative tender offer
	No alternative tender offer is permitted in this tender.
C.2.13.2	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 (<i>Black pen</i>)
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	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:
	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.
C.2.15.1	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.
C.2.16.1	The tender offer validity period is 120 days.
C.2.16.2	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).
C.3.1	 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: 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

	ACT No. LDPWRI-B/20290	
	CIDB Grading Certificate	
	Tenders are required to provide proof of registration with the CIDB register of contractors inc the category of registration, grading as well as the CRS number of the tenderer.	dicating
	Letter of Good Standing	
	Tenderer's are required to submit, bound with the tender submission, a letter of good standing the compensation commissioner indicating that the bidder is in good standing.	ng from
C3.2	Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer s deemed to have received such addenda if the employer can show proof of transmission the a notice in respect thereof) via electronic mail, facsimile or registered post.	
C.3.4.1	Tenders will not be opened immediately after the closing time for tenders.	
C.3.11	The tenderers will be evaluated in four stages(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	
	The technical capacity (functionality) of the contractors will not be evaluated any further evaluation of the RFQ. However, the contractors will be required to declare the status of th staff and any administrative compliance. In cases where there are changes in the key st contractor should provide CVs and qualifications of the new staff to LDPWR&I. The new staff have similar skills, qualifications and experience as the staff submitted during tender. Similar contractors will be expected to provide an update on any changes in their administrative complete on and should submit the required SBD document/forms in such cases.	heir key taff, the f should arly, the
	The award will only be issued to contractors with valid Tax Clearance certificates, active grading and the contractor who meets all the legislative requirement – this shall be verified to in line with the departmental SCM Policy.	
	The total value of current projects for a contractor under consideration cannot exceed tw maximum value of their relevant CIDB grade. ¹	vice the
	a) Stage 1: Administrative Compliance: The Compliance or compulsory document returnables are detailed in Section T.2.1 of this tender document. Failure to complete or comply with these requirements will lead to automatic disqualification	submit,
	b) Stage 2: Risk assessment on current projects	
	The total value of current projects for a contractor under consideration cannot twice the maximum value of their relevant CIDB grade. Should it exceed, the bic therefore not be appointed.	

Stage 3 and 4:

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.

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

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:

Where:

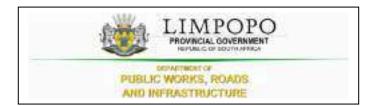
A is 80 since the estimated financial value of works inclusive of VAT is equals or is less than R 50,000,000.00.

P is the points awarded to the bid under consideration

 $!_{\%}$ is the lowest Comparative bid price

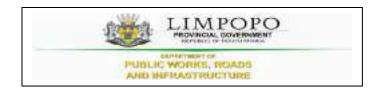
- !_&is the comparative price under consideration
- b) *N*_P is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferencing Schedule in 3.18

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PART T2: RETURNABLE DOCUMENTS

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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 of 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 of 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.

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.

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 bods 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

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T 2.2: RETURNABLE SCHEDULE

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

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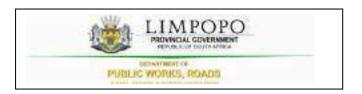
Declaration on the status of administrative compliance

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.

Signed	Date	
Name	Position	
Enterprise		
Lincipiise	 	

CONTRACT No. LDPWRI-B/20290

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Record of Addenda to tender documents

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

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Attach additional pages if more space is required.

Signed	 Date	
Name	 Position	
Tenderer	 	

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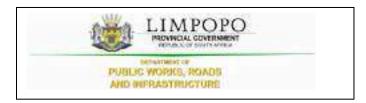
Proposed amendments and qualifications

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	
Signe	ed	Date	
Name	9	Position	
Tend	erer		

CONTRACT No. LDPWRI-B/20290



SBD 1

PART A: INVITATION TO BID

YOU ARE HERE	By invited to bi	D FOR REQUIREN	MENTS OF T	HE LIMPOPO	D DEPARTMENT	OF PUI	BLIC WORKS, F	OADS AND	
BID NUMBER:	LDPWRI-B/20290			As per Tender Advert	CLOSI	NG TIME:	As per Tender Advert		
	REFURBISHME			-				Auton	
DESCRIPTION	NABOOMSPRU					REGG)			
	T OF PUBLIC WC								
	ess: Corner River a	,							
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO									
CONTACT PERS	ON	Mr. NJ Motsopye							
TELEPHONE NU	MBER	0152847126	E-MAIL A	DDRESS		motsop	yen@dpw.limpop	o.gov.za	
CONTACT PERS	ON (TECHNICAL)	Mr. K Modjadji							
TELEPHONE NU		083 673 5436	E-MAIL A	DDRESS		Modjad	jiM@dpw.limpopo	.gov.za	
SUPPLIER INFO		[
NAME OF BIDDE									
STREET ADDRE									
TELEPHONE NU		CODE		NUMBER					
CELLPHONE NU			Nombert I I I I I I I I I I I I I I I I I I I						
E-MAIL ADDRES									
VAT REGISTRAT	ION NUMBER								
SUPPLIER COM	PLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No	: MAA	٩A		
			<u> </u>		-				
REPRESENTA		□Yes	ARE YOU A FOREIGN BASED SUPPLIER FOR				Yes	No	
	CA FOR THE VICES /WORKS			GOODS /SERVICES /WORKS OFFERED?			[IF YES, ANSWER THE		
OFFERED?			[IF YES ENCLOSE PROOF] OFFERED?					RE BELOW]	
QUESTIONNAIR	e to bidding fore	IGN SUPPLIERS							
IS THE ENTITY A	RESIDENT OF THE	REPUBLIC OF SO	UTH AFRICA	(RSA)?			T Y	ES 🗌 NO	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?							ES 🗌 NO		
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?							ES 🗌 NO		
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?							ES 🗌 NO		
IS THE ENTITY L	IABLE IN THE RSA F	OR ANY FORM OF	TAXATION?					ES 🗌 NO	
IF THE ANSWER System Pin Co	IS "NO" TO ALL OF DE FROM THE SOU	THE ABOVE, THEN TH AFRICAN REVE	N IT IS NOT A NUE SERVIO	REQUIREME CE (SARS) AN	ENT TO REGISTE ND IF NOT REGIS	R FOR A	TAX COMPLIAN PER 2.3 BELOW	ICE STATUS	

CONTRACT No. LDPWRI-B/20290 PART B: TERMS AND CONDITIONS FOR BIDDING

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:	

SBD 4

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

YES/NO

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?

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

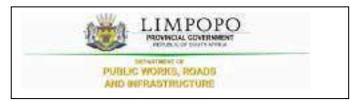
Date

.....

Position

Name of bidder

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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).

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FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES 3.

POINTS AWARDED FOR PRICE 3.1.

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

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

80/20 90/10 or

 $! " = \$ \% \& -\frac{()^{*} + (), -()}{(), -()}$ or $! " = * \% \& -\frac{()^{*} + (), -()}{(), -()}$

Where

Ps Points scored for price of tender under consideration =

Pt Price of tender under consideration =

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

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

80/20	or	90/10
! " = \$ % & ' +), / 0) o r	! " = * % 8	$(1 + \frac{)^{*} +), / 0}{), / 0}$

Where

Ps Points scored for price of tender under consideration =

Pt Price of tender under consideration =

Price of highest acceptable tender Pmax =

POINTS AWARDED FOR SPECIFIC GOALS 4.

- In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, 4.1. 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

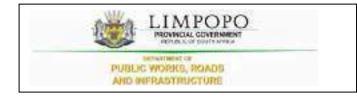
- 4.4. Name of company/firm.....
- 4.5. Company registration number:
- 4.6. TYPE OF COMPANY/ FIRM
 - Partnership/Joint Venture / Consortium One-person business/sole propriety Close corporation Public Company Personal Liability Company (Pty) Limited Non-Profit Company State Owned Company [TICK APPLICABLE BOX]

CONTRACT No. LDPWRI-B/20290

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:	



ATION OF CURRENT PROJECTS

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

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

ects at the moment the bidder must indicate/write on this table.

sentation of facts will render your bid non-responsive.

ist of current projects executed by the bidder

o you have the current projects being executed Yes/No? (circle the correct answer)

ease note that it is compulsory to answer the question above and if the answer is yes, complete the table below. Failure by the service ovider/bidder to answer the question above or complete the table below will render their proposal not responsive and will not be consid

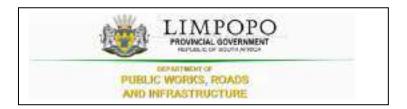
Description	Project Value	Start date	Planned end date	Client Name	Contact Perso

29

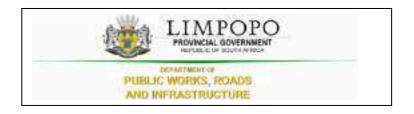
Signed	 Date	
Name	 Position	
Enterprise	 	



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 MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG 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 v	worc	ls); 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	

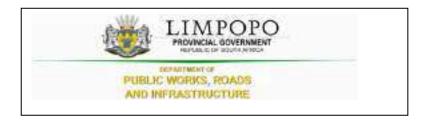
Schedule of Deviations

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.

.....



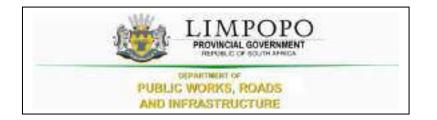
C2.1 CONTRACT DATA

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.

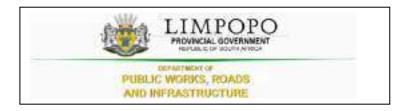
The contractor shall achieve in the performance of the contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts Gazette Notice No. 36190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

SECTION NO. 1

Preliminaries and Generals

Item No

SECTION NO.1

BILL NO.1

MEANING OF TERMS "TENDER / TENDERER"

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"

PRELIMINARIES

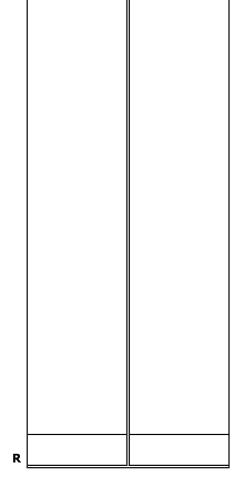
The JBCC Preliminaries Edition 4.1 Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked. "N/A" signifying "Not Applicable".

PRICING OF PRELIMINARIES

Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item.

Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.

SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT



Carried to Collection

DEFI	NITIONS		
A1	DEFINITIONS AND INTERPRETATIONS		
Clause	1.0 Clause		
1.1 De	finition of "Commencement Date" is added:		
agreer	MENCEMENT DATE" means the date that the ment , made in terms of the Form of Offer and ance, comes into effect.		
	1.1 Definition of "Construction Period" is amended by ng it with the following:		
	STRUCTION PERIOD " means the period commencing commencement date and ending on the date of practical tion.		
	1.1 Definition of "Interest" is amended by replacing it e following:		
whethe be in te	EST means the interest rates applicable on this contract, or specifically indicated in the relevant clauses or not, will erms of the legislation of the Republic of South Africa, particular.		
(a)	In respect of interest owed by the employer, the interest rate as determined by the Minister of Justice and Constitutional Development, from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and		
(b)	in respect of interest owed to the employer , the interest 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), will apply.		
Clause	1.6.4 is amended by replacing it with the following:		
		1 1	11

2

Bill No. 1

	No clause		
	Fixed:Value related:		
	Time related:	item	
	OBJECTIVE AND PREPARATION		
2	A2 OFFER, ACCEPTANCE AND PERFORMANCE		
	Clause 2.0		
	Fixed:Value related: Time related:	item	
3	A3 DOCUMENTS		
	Clause 3.0		
	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		
	Fixed:Value related: Time related:	item	
4	A4 DESIGN RESPONSIBILITY		
	Clause 4.0		
	Fixed:Value related: Time related:	item	
5	A5 EMPLOYEES AGENTS	licent	
5	Clause 5.0		
	Clause 5.1.2 is amended to include clauses 32.6.3,34.3 and 34.4		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	
	Section No. 1		

6	A6 SITE REPRESENTATIVE		
	Clause 6.0 Fixed :Value related :		
	Time related:	item	
7	A7 COMPLIANCE WITH REGULATION		
	Clause 7.0		
	Note: The provisions herein include inter alia, compliance 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), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor See also clause C10 of Section C - Specific Preliminaries Fixed:Value related:		
	Time related:	item	
8	A8 WORKS RISK		
	Clause 8.0		
	Fixed:Value related: Time related:	item	
9	A9 INDEMNITIES		
	Clause 9.0		
	Fixed :Value related : Time related :	item	
10	A10 WORKS INSURANCES		
	Fixed:Value related: Time related: Clause 10.0		
	Clause 10.0 is amended by the addition of the following	item	
	clauses:		
	Carried to Collection	R	

10.5 Damage to the Works

- Without in any way limiting the contractors 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 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
- (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 of **works**
- (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
- (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

Carried to Collection

Section No. 1 PRELIMINARIES Bill No. 1

10.6 Injury to Persons or loss of or damage to Properties

- (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
- (b) The contractor shall be liable for any 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 act or neglect of any person for whose actions the employer is legally liable
- (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 therefore 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
- (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**
- (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 and will remain adequately insured or insured 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

Carried to Collection

R

(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

10.7 High risk insurance

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

10.7.1 Damage to the works

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

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

10.7.2 Injury to persons or loss of or damage to property

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

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable 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

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	 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 contractors obligations in terms of the 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 contractors 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 amount 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:Value related: Time related:	item	
11	A11 LIABILITY INSURANCES		
	Clause 11.0		
	Fixed:Value related: Time related:	item	
12	A12 EFFECTING INSURANCES		
	Clause 12.0		
	Fixed:Value related: Time related:	item	
13	A13.0 No clause		
14	A14 SECURITY		
	Clause 14.0		
	Clause 14.1 - 14.8 are amended by replacing them with the following:		
	14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)		
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14.1.1. The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* 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 **employers** 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**. 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 selected.

14.3. Where **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 of 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** 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**

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**

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**

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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 **employers** entitlement shall take precedence over his obligations to refund the cash deposit **security** or portions thereof to the **contractor**

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

14.4. Where **security** as a variable construction guarantee of ten percent (10%) of the **contract sum** (excluding VAT) has been selected.

14.4.1. The **contractor** shall furnish the **employer** with an acceptable variable construction guarantee equal in value to ten percent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.4.2. The variable construction guarantee shall reduce and expire in terms of the Variable Construction Guarantee form include in the invitation to tender

14.4.3. The **employer** shall return the variable construction guarantee to the **contractor** within fourteen (14) **calendar days** of it expiring

14.4.4. Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** 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 **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

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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 			
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 expenses 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 employers 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			
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15	 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 contractors selected form the security to that of a ten per cent (10%) payment reduction of the value certificate in the payment certificate (excluding VAT), whereafter 14.7 shall be applicable Fixed:Value related: EXECUTION A15 PREPARATION FOR AND EXECUTION OF THE WORKS Clause 15.0 Clause 15.1.1 is amended by replacing it with: No Clause 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), with 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 15.1.2 and 15.1.4 	item	
	Fixed:Value related: Time related:	item	
16	A16 ACCESS TO THE WORKS Clause 16.0 Fixed:Value related: Time related: A17 CONTRACT INSTRUCTIONS	item	
	Clause 17.0 Fixed:Value related: Time related:	item	
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18	A18	SETTING OUT OF THE WORKS		
	Clause 18	3.0		
	Fixed: Time rela	Value related:	item	
19	A19	ASSIGNMENT		
	Clause 19	9.0		
	Fixed: Time rela	Value related:	item	
20	A20	NOMINATED SUB-CONTRACTORS		
	Clause 20	0.0		
	Clause 20	0.1.3 is amended by replacing it with the following:		
	No Clause	e		
		e item B9.1 hereinafter for adjustment of attendance nated subcontractors executing work allowed for under al sums		
	Fixed: Time rela	Value related :	item	
21	A21	SELECTED SUBCONTRACTORS		
	Clause 21			
		I is amended by replacing with:		
	No Clause			
	Fixed:	Value related:		
	i ime reia	ated:	item	
		Carried to Collection	R	
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22	A22 EMPLOYERS DIRECT CONTRACTORS		
	Clause 22.0		
	Fixed:Value related:		
	Time related:	item	
23	A23 CONTRACTOR'S DOMESTIC SUBCONTRACTORS		
	Fixed:Value related: Time related:		
24	A24 PRACTICAL COMPLETION		
	Clause 24.0		
	Fixed :Value related : Time related :		
25	A25 WORK'S COMPLETION		
	Clause 25.0		
	Fixed:Value related: Time related:	item	
26	A26 FINAL COMPLETION		
	Clause 26.0		
	Fixed:Value related: Time related:	item	
77		literii	
27	A27 LATENT DEFECTS LIABILITY PERIOD		
	Clause 27.0		
	Fixed:Value related: Time related:	item	
28	A27 SECTIONAL COMPLETION		
	Clause 28.0		
	Fixed:Value related: Time related:	item	
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A29	REVISION OF DATE FOR PRACTICAL COMPLETION		
Clause	29.0		
	Value related:elated:	item	
A30	PENALTY FOR NON-COMPLETION		
Fixed:_ Time re	Value related:elated:	item	
PAYM	IENT		
A31	INTERIM PAYMENT TO THE CONTRACTOR		
Clause	31.0		
	31.8 is amended by replacing it with the following two tive clauses:		
Altern	ative A		
14.6, th and go certified 31.8(A) payme compl).1 Where a security is selected in terms of 14.1, 14.5 or he value of the works in terms of 31.4.1 and materials pods in terms of 31.4.2 shall be certified in full. The value d shall be subject to the following percentage adjustments:).2 Ninety-seven per cent (97%) of such value in interiment certificates issued on the date of practical letion and up to but excluding the date of final completion).3 Ninety-nine per cent (99%) of such value in interiment 		
payme	ent certificates issued on the date of final completion to but excluding the final payment certificate in terms		
final pa amoun the pay).4 One hundred per cent (100%) of such value in the ayment certificate in terms of 34.6 except where the t certified is in favour of the employer . In such an event yment reduction shall remain at the adjustment level able to the final payment certificate		
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Alternative B		
31.8(B) Where security is a payment reduction in terms of 14.7		
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:		
31.8(b).1 Ninety per cent (90%) of such value in interim		
payment certificates issued up to the date of practical		
completion		
31.8(B).1 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		
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		
31.8(B).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		
Clause 31.12 is amended by deleting the following:		
Payment shall be subject to the employer giving the contractor		
a tax invoice for the amount due		
Fixed:Value related:		
Time related:	item	
	licent	
A32 ADJUSTMENT TO THE CONTRACT VALUE		
Clause 32.0		
Clauses 32.5.1, 32.5.7 are amended by the addition of the		
following at the end of the sentence:		
'due to no fault of the contractor "		
Fixed:Value related:		
Time related:	item	
		 ∥
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33 A33 RECOVERY OF EXPENSE AND LOSS		
Clause 33.0 Clause 33.2 is amended by adding the following clauses:		
33.2.9 the contractors failure or neglect to commence with the works on the dates prescribed in the contract		
33.2.10 the contractors failure or neglect to proceed with the works in terms of the contract		
33.2.11 the contractors failure or neglect for any reason to complete the works in accordance with the contract		
33.2.12 the contractors refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing given in terms of the contract		
33.2.13 the contractors estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa		
Fixed:Value related: Time related:	item	
34 A34 FINAL ACCOUNT AND FINAL PAYMENT		
Clause 34.0		
Clause 34.13 is amended by replacing seven (7) calendar days with twenty-one (21) calendar days and deleting the words subject to the employer giving the contractor a tax invoice for the amount due		
Fixed:Value related: Time related:	item	
35 A35 PAYMENT TO OTHER PARTIES		
Clause 35.0		
Fixed :Value related : Time related :	item	
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A36 CAN DEFAULT	CELLATION BY EMPLOYER - CONTRACTORS		
Clause 36.0			
	ended by removing the reference to No clause e words principal agent with employer		
Clause 36.0 is am	ended by the addition of the following clause:		
of this agreeme or for any reasor instruction, disco withdraw himself entitled to refuse	ding any clause to the contrary, on cancellation nt either by the employer or the contractor ; whatsoever, the contractor shall on written ntinue with the works on a date stated and from the site . The contractor shall not be to withdraw from the works on the grounds of of retention or on the grounds of any other right		
Fixed:	Value related:		
Time related:		item	
A37 CAN DAMAGE	CELLATION BY EMPLOYER - LOSS AND		
Clause 37.0			
Clause 37.0 is am	ended by the addition of the following clause:		
this agreement for any reason w instruction, disco withdraw himself entitled to refuse	ding any clause to the contrary, on cancellation of either by the employer or the contractor ; or hatsoever, the contractor shall on written ntinue with the works on a date stated and from the site . The contractor shall not be to withdraw from the works on the grounds of of retention or on the grounds of any other right		
Fixed: Time related:	Value related:	item	
	CELLATION BY CONTRACTOR - EMPLOYERS		
Clause 38.0			

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Clause 38.0 is amended by the addition of the following 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		
Fixed:Value related: Time related:	item	
38 A39 CESSATION- CANCELLATION OF THE WORKS		
Clause 39.0		
Fixed:Value related:		
Time related:	item	
39 A40 DISPUTE SETTLEMENT		
Clause 40.0		
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 additions 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:Value related:		
Time related:	item	
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	SUBSTITUTE PROVISIONS		
40	A41 STATE CLAUSES		
	Clause 41.0		
	Fixed:Value related: Time related:	item	
	CONTRACT VARIABLES		
	THE SCHEDULE (DPW04EC)		
41	A42 PRE-TENDER INFORMATION		
	Clause 42.0		
	Tenderers are referred to the document C1.2 Contract Data DPW04(EC) for variables pertaining to this contract		
	Fixed:Value related: Time related:	item	
	SECTION B: JBCC PRELIMINARIES		
	DEFINITIONS AND INTERPRETATION		
42	Definitions and interpretation		
	Fixed:Value related: Time related:	item	
	DOCUMENTS		
43	Checking of documents		
	Fixed:Value related: Time related:	item	
44	Provisional bills of quantities		
	Fixed:Value related: Time related:	item	
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45	Availability of construction documentation		
	Fixed:Value related:		
	Time related:	item	
46	Interests of agents		
	Fixed:Value related:		
	Time related:	item	
47	Priced documents		
	Fixed:Value related:		
	Time related:	item	
48	Tender submission		
	Clause 2.6 is amended by replacing JBCC Form of Tender with		
	Form of Offer and Acceptance		
	Fixed:Value related:		
	Time related:	item	
	THE SITE		
49	Defined works area		
	Fixed:Value related:		
	Time related:	item	
50	Geotechnical investigation		
	Fixed:Value related:		
	Time related:	item	
51	Inspection of the site		
	Tenderers shall complete the Site Inspection Certificate		
	included in the tender documents and return the same with the tender submission.		
	Fixed:Value related: Time related:	item	
	Carried to Collection	R	
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52	Existing premised occupied		
	Fixed :Value related : Time related :	item	
3	Previous work dimensional accuracy		
	Fixed :Value related : Time related :	item	
4	Previous work defects		
	Fixed:Value related: Time related:	item	
5	Services known		
	Fixed:Value related: Time related:	item	
56	Services unknown		
	Fixed:Value related: Time related:	item	
57	Protection of trees		
	Fixed:Value related: Time related:	item	
8	Articles of value		
	Fixed:Value related: Time related:	item	
9	Inspection of adjoining properties		
	Fixed:Value related: Time related:	item	
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	MANAGEMENT OF CONTRACT		
60	Management of the works		
	Fixed:Value related: Time related:	item	
61	Programme for the works		
	Fixed:Value related: Time related:	item	
62	Progress meetings		
	Fixed:Value related: Time related:	item	
63	Technical meetings		
	Fixed:Value related: Time related:	item	
64	Labour and plant records		
	Fixed:Value related: Time related:	item	
	SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS		
65	Samples of materials		
	Fixed:Value related: Time related:	item	
66	Workmanship samples		
	Fixed:Value related: Time related:	item	
67	Shop drawings		
	Fixed:Value related: Time related:	item	
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	TEMPORARY WORKS AND PLANT		
69	Deposits and fees		
	Fixed :Value related : Time related :	item	
70	Enclosure of the works		
	Fixed:Value related: Time related:	item	
71	Advertising		
	Fixed:Value related: Time related:	item	
72	Plant, equipment, sheds and offices		
	Fixed:Value related: Time related:	item	
73	Main notice board		
	Fixed:Value related: Time related:	item	
74	Subcontractors notice board		
	Fixed:Value related: Time related:	item	
	TEMPORARY SERVICES		
75	Location		
	Fixed:Value related: Time related:	item	
76	Water		
	Fixed:Value related: Time related:	item	
77	Electricity		
	Fixed:Value related: Time related:	item	
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78	Telecommunication facilities		
	Fixed:Value related:		
	Time related:	item	
79	Ablution facilities		
	Fixed:Value related:		
	Time related:	item	
	PRIME COSTS AMOUNTS		
80	Responsibility for prime cost amounts		
	Fixed:Value related:		
	Time related:	item	
	ATTENDANCE ON N/S SUBCONTRACTORS		
81	General attendance		
	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:Value related:		
	Time related:	item	
82	Special attendance		
	Fixed:Value related:		
	Time related:	item	
83	Commissioning fuel, water and electricity		
	Fixed:Value related:		
	Time related:	item	
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	FINANCIAL ASPECTS		
84	Statutory taxes, duties and levies		
	Fixed:Value related: Time related:	item	
85	Payment for preliminaries		
	Fixed:Value related: Time related:	item	
86	Adjustment of preliminaries		
	Fixed:Value related: Time related:	item	
87	Payment certificate cash flow		
	Fixed:Value related: Time related:	item	
	GENERAL		
88	Protection of the works		
	Fixed:Value related: Time related:	item	
89	Protection / isolation of existing / sectionally occupied works		
	Fixed:Value related: Time related:	item	
90	Security of the works		
	Fixed:Value related: Time related:	item	
91	Notice before covering work		
	Fixed:Value related: Time related:	item	
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92	Disturbance			
	Fixed:Value related: Time related:	item		
		literii		
93	Environmental disturbance			
	Fixed :Value related : Time related :	item		
94	Works cleaning and clearing			
7				
	Fixed:Value related: Time related:	item		
95	Vermin			
	Fixed:Value related:			
	Time related:	item		
96	Overhand work			
	Fixed:Value related:			
	Time related:	item		
97	Instruction manuals and guarantees			
	Fixed:Value related:			
	Time related:	item		
98				
	Fixed:Value related: Time related:	item		
00		licent		
99	Tenant installations			
	Fixed:Value related: Time related:	item		
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Pre-tender information		
Fixed:Value related: Time related:	item	
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.		
Spaces requiring information must be filled in, shown as not applicable or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted.		
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PRE-TENDER INFORMATION		
Provisional Bills of Quantities		
The quantities are provisional		
	NO	
Availability of construction docu	mentation	
Construction documentation is comp		
	YES	
Interest of agent		
Details:		
Employer: Limpopo Department	t of of Roads &	
Infrastructure		
43 Church Street		
Private Bag X9490		
POLOKWANE, 0700		
Tel: [015] 284 7000/1 Cell: 082 460 6	271	
Architect and Dringing! Archite		
Architect and Principal Agent:		
Ruben Reddy Architects		
4 Ismini Office Park,		
Tel: [015] 065 0645 Fax: [011] 47 Email : Geshim.Francis@rubenred		
Quantity Surveyor:		
Phahlana-Hunadi QS		
2760 Zone B		
LEBOWAKGOMO , 0737		
Tel: [015] 633 6535 Fax: [015] 63	3 6477	
Email : 'info@phqs.co.za		
Civil/Structural:		
Muteo Consulting		
39 Grobler Street		
POLOKWANE		
Tel: [015] 291 4065 Fax: 015 291	4043	
Email: vonganim@muteo.co.za		
Electrical/Mechanical Engineers	<u>:</u>	
NSKECM		
38 Burger Street		
Polokwane 0700		
Tel: 015 295 2104 Fax: 015 295 2	2104	
Email: mark@nskecm.co.za		
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12.1.4 <i>[3.1]</i>	Defined works area Details:		
	Site as per land surveyor		
12.1.5 <i>[3.2]</i>	<i>Geotechnical investigation</i> Details:		
	Refer to Principal Agent		
12.1.6 <i>[3.4]</i>	<i>Existing premises occupies</i> Specific requirements:		
	N/A		
12.1.7 <i>[3.5]</i>	Previous work - dimensional accuracy Details		
	N/A		
12.1.8 <i>[3.6]</i>	<i>Previous work - defects</i> Details:		
	N/A		
12.1.9 <i>[3.7]</i>	<i>Services - known</i> Details:		
	N/A		
12.1.10 <i>[3.9]</i>	<i>Protection of trees</i> Specific requirements:		
12.1.11 <i>[3.11]</i>	<i>Inspection of adjoining properties</i> Specific requirements:		
12.1.12 <i>6.2]</i>	<i>Enclosure of the works</i> Specific requirements:		
12.1.13 [6.4.3]	Offices 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, suitable 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.		
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12.1.14 <i>[6.5]</i>	Main notice board Specific requirements: The contractor shall provide, erect where dir maintain and remove on completion of the we notice board size 3 x 3m as type Drawing GE constructed of suitable boarding with flat sm surface and with edging bead 19mm thick ar edges and projecting 12mm from face of boar rounded on front edge. The board shall be fixed to hoarding, where hoarding is provide to and including a suitable supporting struct or tubular posts and braces. The board is to ivory white and the bead and 12mm wide div dark green. All wording shall be inscribed in as per the coat of arms of SA. All working sh inscribed in dark green painted sans serif let	orks a N 063, ooth round outer arding and securely ed, or fixed sure of timber o be painted <i>v</i> iding lines o dark green aall be		
		tering.		
12.1.15 <i>[6.6]</i>	<i>Subcontractor's notice board</i> Specific requirements:	YES/NO		
12.1.16	Water	ΤΕΞ/ΙΝΟ		
[7.2]	Option A (by contractor)	YES		
	Option B (by employer - free of charge)	-		
	Option C (by employer - metered)	NO		
		NO		
12.1.17 <i>[7.3]</i>	<i>Electricity</i> Option A (by contractor)			
L:J		YES		
	Option B (by employer - free of charge)	NO		
	Option C (by employer - metered)	NO		
12.1.18	Telecommunications			
[7.4]	Telephone	VEC		
	Facsimile	YES		
	E mail	YES		
	E-mail	YES		
12.1.19	Ablution facilities			
[7.5]	Option A (by contractor)	YES		
	Option B (by employer)			
12.1.20	Protection of existing/sectionally occup	NO Died works		
[11.2]	Protection is required			
		NO		
			_	
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12.1.21 <i>[9.2]</i>	<i>Special attendance</i> <i>Subcontractor</i> (1) details:			
5125	Subcontractor (2) details:			
	<i>Subcontractor</i> (3) details:			
	<i>Subcontractor</i> (4) details:			
12.1.22 <i>[11.1]</i>	<i>Protection of works</i> Specific requirements			
12.1.23 <i>[11.5]</i>	Disturbance Specific requirements: The contractor shall keep the site, structu watered during operations to prevent dus provide and erect and remove on comple works all necessary temporary dust screen satisfaction of the principal agent	st and shall etion of the		
12.1.22 <i>[11.1]</i>	<i>Protection of works</i> Specific requirements			
12.1.23 <i>[11.5]</i>	<i>Disturbance</i> Specific requirements: The contractor shall keep the site, structur watered during operations to prevent dus provide and erect and remove on comple works all necessary temporary dust screen satisfaction of the principal agent	st and shall etion of the		
12.1.24 <i>[11.6]</i>	<i>Environmental disturbance</i> Specific requirements:			
12.2	POST-TENDER INFORMATION			
12.2.1 <i>[10.2]</i>	Payment of preliminaries Option A (prorated) Option B (calculates)	YES/NO YES/NO		
12.2.2 [<i>10.3]</i>	<i>Adjustment of preliminaries</i> Option A (three categories)			
	Option B (detailed breakdown)	YES/NO YES/NO		
12.2.3	<i>Additional agreed preliminaries item</i> Details:			
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Sectio apply 1	ION C: SPECIFIC PRELIMINARIES on C contains specific preliminary items which to this contract except where N/A (Not cable) appears against an item		
.01 C1	CONTRACT DRAWINGS		
the com purpose tendere works a	awings issued with the tender documents do not comprise applete set but serve as a guide only for tendering es and for indicating the scope of the work to enable the er the acquaint himself with the nature and extend of the and the manner in which they are to be executed		
tendere clarificat	any part of the drawings not be clearly intelligible to the er he shall, before submitting his tender, obtain tion in writing from the principal agent		
	Value related:	item	
02 C2	GENERAL PREAMBLES		
(PW371) regional with the	cument Specification of Materials and Methods to be used) is obtainable on request from the head office and all I offices of the Department, and shall be read in conjunction e bills of quantities and be referred to for the full tions of work to be done and materials to be used		
Time rel	Value related: lated:	item	
bills of the tend of equal	TRADE NAMES ver a trade name of any product has been described in the i quantities , derers attention is drawn to the fact that any other product I quality may be used subject to the written approval of the al agent being obtained to the closing date for submission ers		
	written approval for an alternative product is not obtained, duct described shall be deemed to have been tendered for		
	Value related:	itom	
i ime rei	lated :	item	
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104	C4 IMPORTED MATERIALS AND EQUIPMENT		
	Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment to be completed		
	Nothwistanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable)		
	Fixed:Value related: Time related:	item	
105	C5 VIEWING THE SITE IN SECURITY AREAS	liciti	
105	The site is situated in a security area and the tenderer must arrange with the unit commander or other responsible officer to obtain permission to enter the site for tendering purposes		
	Fixed:Value related: Time related:	item	
106	C6 COMMENCEMENT OF WORKS IN SECURITY AREAS		
	As the works falls within a security area the contractor must give the unit commander or other responsible officer 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 contractors account		
	Fixed:Value related:		
	Time related:	item	
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107	C7 ENTRANCE PERMITS TO SECURITY AREAS		
	As the works falls within a security 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 Defence Force, Police or chief security officer		
	Fixed:Value related: Time related:	item	
108	C8 SECURITY CHECK OF PERSONNEL		
	The principal agent may require the contractor to have his personnel and workmen, or a certain number of them, security classified		
	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		
	Fixed:Value related:Time related:	item	
109	C9 PROHIBITION ON TAKING OF PHOTOGRAPHS In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civic works thereon or to be in possession of a camera or other apparatus used for taking of photographs except when authorized thereto by or on behalf of the Minister.		
	Fixed:Time related:	item	
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Bill No. 1

с	10 HIV/AIDS AWARENESS		
Si to Si Pi C re bi	t is required of the contractor to thoroughly study the HIV/AIDS pecification of the Department that must be read ogether with and is deemed to be incorporated under this ection of the Bills of Quantities. rovision for pricing of HIV/AIDS awareness is made under items 10.1 TO C10.5 hereafter and it is explicity pointed out that all equirements of the aforementioned specification are deemed to e priced hereunder, as the said items represent the only method f measurement and no additional items or extras to the contract of this regard shall be entertained		
Si of Pi re Co co	he contractor must take note that compliance with the HIV/AIDS pecification is compulsory. In the event of partial or total non- ompliance, the principal agent , notwithstanding the provisions f Clause A 31 of Section A: reliminaries (Section A) or any other clause to the contrary, eserves the right to delay issuing any progress payment ertificate until the contractor provides satisfactory proof of ompliance. The contractor shall not be entitled to any ompensation of whatsoever nature, including interest, due to uch delay of payment		
.10 C	10.1 AWARENESS CHAMPION		
A	election, appointment, briefing and making available of an wareness Champion including provision of all relevant services, Il in accordance with the HIV/AIDS Specification		
	ixed:Value related: ime related:	item	
.11 C	10.2 AWARENESS WORKSHOPS		
aı W w te	election and appointment of a completed Services Provider pproved by the principal agent , provision of a Service Provider Vorkshop Plan and a suitable venue, conducting of awareness vorkshops by means of traditional and/or modern multi-media echniques, including follow-up courses, making available all uition material and performing assessment procedures, all in ccordance with the HIV/AIDS Specification		
	ixed:Value related: ime related:	item	
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112	C10.3 POSTERS, BOOKLETS, VIDEOS, ETC		
	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		
	Fixed:Value related:		
	Time related:	item	
113	C10.4 ACCESS TO CONDOMS		
	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		
	Fixed:Value related:		
	Time related:	item	
114	C10.5 MONITORING		
	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		
	Fixed:Value related: Time related:	item	
		licent	
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PRELIMINARIES

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SECTION NO. 2

Renovations (12CR, 16Waterborne, Nutrition)

					Mokha	iri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 1					
	ALTERATIONS					
	PREAMBLES					
	For preambles see "Specifications and methods to be used - PW371"					
	TEMPORARY BARRICADES, SCREENS, ETC					
	Temporary barricades, screens, roofs, etc including removal					
1	Dust screen 1800mm high between concrete floor and ceiling, of suitable timber framing with 375 micron					
	polyethylene sheeting stapled on on one side, including					
	corners, ends, etc	m	50			
	Taking out and removing fencing, gates, etc					
2	1800mm high steel fence	m	663			
	REMOVAL OF EXISTING WORK					
	Breaking up and removing unreinforced concrete					
3	100mm Thick surface beds	m²	180			
4	100mm thick aprons	m²	337			
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc:					
5	10 x 250mm fascia and barge boards	m	337			
	Breaking down and removing brickwork etc					
6	One brick walls	m²	31			
	Taking out and removing sanitary fittings, tanks, geysers, etc, including disconnecting from pipes, traps, etc and making good floor and wall finishes (making good tiling and paintwork elsewhere)					
7	Gutters and down pipes	m	585			
	Taking out and removing sundry joinery work, fittings, etc					
8	Chalk boards size 4800 x 1220mm high from brick wall.	No	12			
9	Pinning boards size 2440 x 1220mm high from brick					
	walls.	No	24			
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	Alterations					
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I		Unit	Quantity	Rate	Amount	I
	Taking out/off and removing glass and mirrors					
10	Glass from steel windows, including cleaning out rebates					
	and preparing for new glass	m²	68			
	Taking out doors, windows, etc					
11	Timber single door size 813 x 2032mm high overall from					
	steel frames.	No	40			
12	Steel gate size 813 x 2032mm high overall from steel					
	frames.	No	20			
13	Steel gate size 1600 x 2032mm high overall from steel					
10	frames.	No	1			
	Hack up and removing granolithic screeds, plaster ,					
	etc from concrete or brickwork and preparing					
	surfaces for new screed, plaster, etc					
14	30mm screed from floors	m²	902			
	Take out and remove existing pit toilet					
15	Demolish pit toilet 20m2 on plan and 3m high comprising					
10	concrete surface beds, one brick wall, corrugated roof					
	sheeting including sucking of human waste, filling the pit,					
	etc	No	2			
	Taking down and removing roofs, floors, panelling,					
	<u>ceilings, partitions, etc</u>					
16	Pitched roof 330m2 on plan of timber trusses and					
	purlins, corrugated sheet steel covering, ceilings and cornices, eaves soffit covering, fascias, barge boards,					
	gutters and rainwater pipes	No	1			
17	Roof sheeting from timber trusses	m²	792			
	-		102			
18	Gypsum plasterboard ceilings, including timber brandering, cornices, etc	m²	1 170			
	-					
19	Cornices	m	372			
	Taking up and removing wood block floor coverings,					
	vinyl floor coverings, carpets, etc and preparing screeds for new floor coverings					
20	Floor coverings	m²	815			
20	Ĵ	III-	610			
	Hacking up/off and removing ceramic tiles including					
	removing mortar bed or adhesive from concrete or brickwork and preparing surfaces for new screed,					
	plaster, tile finish, etc					
21	Tiles to floors	m²	80			
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	Section No. 2					
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	Alterations 43					
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		Unit	Quantity	Rate	Amount	
22	PREPARATORY WORK TO EXISTING SURFACES Making good defects in existing screeded floors with cement mortar	m²	45			
	MAKING GOOD OF FINISHES ETC					
	Making good untinted granolithic					
23	40mm Thick on floors in patches	m²	75			
	Making good cement screeds					
24	Floors where one brick walls removed	m	10			
	Making good internal cement plaster					
25	Walls in patches	m²	45			
26	Walls where one brick wall was removed	m²	31			
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Amount <u>BILL NO. 1</u> **ALTERATIONS COLLECTION** Page No Brought Forward from Page 42 43 44 Carried To Section Summary R Section No. 2 Bill No. 1 Alterations 45

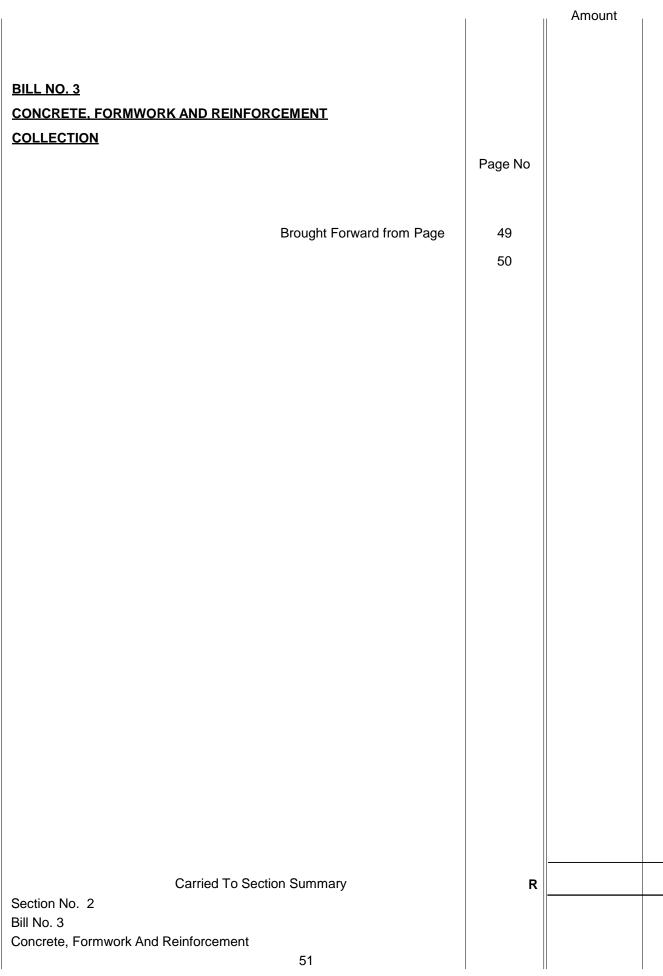
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I		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 2					
	EARTHWORKS					
	PREAMBLES					
	For preambles see "Specifications and methods to be used - PW371"					
	SITE CLEARANCE					
	Site clearance					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m²	96			
	EXCAVATIONS, FILLING, ETC OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep:					
2	Trenches	m³	22			
	Extra over bulk excavations in earth for excavation in					
3	 Soft rock	m³	2			
4	Hard rock	m³	1			
_	Extra over all excavations for carting away					
5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	4			
	Risk of collapse of excavations					
6	Sides of bulk excavations not exceeding 1,5m deep	m²	64			
	Keeping excavations free of water					
7	Keeping excavations free of water other than subterranean water	Item				
	FILLING ETC					
	Earth filling obtained from the excavations					
8	Backfilling to trenches, holes, etc	m³	11			
9	Under floors, steps, paving, etc	m³	6			
	Earth filling supplied by the contractor, compacted to 95% Mod AASHTO density					
10	Under floors, steps, paving, etc	m³	29			
			20			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 2					
	Earthworks					
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					Mokha	iri SS
1		Unit	Quantity	Rate	Amount	1
	Compaction of surfaces					
11	Compaction of nof ground surfaces under floors, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m²	96			
	TESTS					
	Prescribed tests to determine degree of compaction or other properties of ground or filling					
12	Modified AASHTO Density test	No	5			
13	Natural California Bearing Ratio test	No	1			
14	Field Density test including Optimum Moisture Content test (four readings per test)	No	1			
	SOIL POISONING					
	Soil insecticide in accordance with SANS 5859					
15	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	96			
	-					
16	To bottoms and sides of trenches etc	m²	90			
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Unit Quantity Amount Rate **SECTION NO. 2** Renovations (12CR, 16Waterborne, Nutrition) **BILL NO. 3** CONCRETE, FORMWORK AND REINFORCEMENT PREAMBLES For preambles see "Specifications and methods to be used - PW371" UNREINFORCED CONCRETE CAST AGAINST **EXCAVATED SURFACES** 15Mpa/19mm concrete Pavings 10 1 m³ Ramps 3 2 m³ 3 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc Description Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc 96 m **REINFORCED CONCRETE CAST ON/IN FORMWORK** 25MPa/19mm concrete 10 4 Surface beds cast in panels m³ REINFORCED CONCRETE CAST AGAINST **EXCAVATED SURFACES** 25MPa/19mm concrete 5 Footings m³ 6 **TEST CUBES Test Cubes** 6 Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional) No 10 CONCRETE SUNDRIES Finishing top surfaces of concrete smooth with a wood float 7 Surface beds, slabs, etc m² 96 Carried to Collection R Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement 49

					Mokha	ari SS
		Unit	Quantity	Rate	Amount	1
	MOVEMENT JOINTS ETC					
	<u>Saw-cut joints</u> 10 x 10mm Saw-cut joints in top of concrete		40			
8		m	48			
	REINFORCEMENT					
	Mild steel reinforcement to structural concrete work					
9	Various sizes of reinforcement steel	Tonnes	2.00			
	Fabric reinforcement					
10	Type 193 fabric reinforcement in concrete slabs etc	m²	96			
	Carried to Collection			R		
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	Bill No. 3					
	Concrete, Formwork And Reinforcement					
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		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	Renovations (12CR, 16Waterborne, Nutrition)				
	BILL NO. 4				
	MASONRY				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371"				
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar				
1	One brick walls	m²	32		
	BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar				
2	One brick walls	m²	98		
	2,5mm Brickwork reinforcement				
3	150mm Wide reinforcement built in horizontally	m	429		
	Turning pieces to lintels etc				
4	220mm Wide turning pieces	m	16		
	Galvanised wire ties etc				
5	4mm Diameter roof tie 2m girth bent double, with one end built into brickwork and other end fixed to timber	No	32		
	FACE BRICKWORK				
	Face bricks (Prime cost R5 500/1000 delivered to site				
	excluding VAT) pointed with recessed horizontal and flush vertical joints:				
6	Extra over brickwork for face brickwork	m²	98		
7	Extra over brickwork for face brickwork in foundations				
	(Provisional).	m²	14		
8	Half brick in facings in beamfilling	m²	10		
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT), pointed with recessed joints on all exposed faces				
9	220mm Copings on top of one brick walls	m	10		
10	Extra over brickwork for brick on edge header course				
	lintel pointed on face and 220mm soffit	m	16		
	Carried to Collection			R	
	Section No. 2 Bill No. 4				
	Masonry				
	52				
			. I		

Unit Quantity Rate Amount 11 220mm Wide sills set level and slightly projecting 5 m FIBRE-CEMENT WINDOW SILLS Natural grey sills in single lengths bedded in class 1 mortar including metal fixing lugs, etc 12 12 x 152mm Wide sills set sloping and slightly 5 m projecting Carried to Collection R Section No. 2 Bill No. 4 Masonry 53

Amount <u>BILL NO. 4</u> MASONRY **COLLECTION** Page No Brought Forward from Page 52 53 Carried To Section Summary R Section No. 2 Bill No. 4 Masonry 54

Unit Quantity Rate Amount **SECTION NO. 2** Renovations (12CR, 16Waterborne, Nutrition) BILL NO. 5 WATERPROOFING PREAMBLES For preambles see "Specifications and methods to be used - PW371" DAMPPROOFING OF WALLS AND FLOORS One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B) 7 In walls m² 1 One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape Under surface beds m² 2 96 Carried To Section Summary R Section No. 2 Bill No. 5 Waterproofing 55

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	I
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 6					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	General					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised					
	troughed sheet steel with "chromadek" finish one					
	side, fixed to 76 x 50mm purlin complete under 5year					
	quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods					
	employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	M²	1 249			
	0.58mm galvanised sheet iron, with "chromadek"					
2	one side in:	100	110			
2	Standard type FK3 ridge or hip flashing	m	118			
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	Section No. 2					
	Bill No. 6					
	Roof Coverings					
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						05

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	1
SECTION NO. 2					
Renovations (12CR, 16Waterborne, Nutrition)					
BILL NO. 7					
CARPENTRY AND JOINERY					
PREAMBLES					
For preambles see "Specification of materials and					
methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Particle board:					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.					
Joinery:					
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.					
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.					
Fixing:					
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.					
Decorative laminate finish:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.					
PREFABRICATED ROOF TRUSSES, ETC.					
Plate nailed timber roof truss construction:					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .					
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Carpentry And Joinery					
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Unit Quantity Amount Rate Roof construction to double pitched roof with hipped 1 ends approximately 100m2 (nutrition centre) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat). No 1 **ROOF SUNDRIES** Sundries: 2 Two coats creosote on sawn timbers. m² 91 EAVES, VERGES, ETC Everite FC77 or equal approved pressed fibrecement: 3 10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips. m 373 Wrought meranti doors: Wrought meranti doors hung to steel frames: 44mm Framed batten door 813 x 2032mm high of 44 x 4 150m top rail and stiles ,16 x 150mm middle ledge and braces and 22 x 220mm bottom rail, filled in with 22mmV-jointed one side boarding and covered on other side with 4mm plywood with veneer to match door, let into and including rebates all round. No 20 DOORS ETC Semi-solid flush doors with veneer 5 40mm Door 813 x 2032mm high No 16 Carried to Collection R Section No. 2 Bill No. 7 Carpentry And Joinery 58

		1	Amount
<u>BILL NO. 7</u>			
CARPENTRY AND JOIN	ERY		
COLLECTION			
		Page No	
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		58	
	Carried To Section Summary	R	
Section No. 2	-		
Bill No. 7			
Carpentry And Joinery	59		
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					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 8					
	CEILINGS PARTITIONS AND ACCESS FLOORING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	1 166			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	694			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec or equal approved fibre-cement					
	boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering					
	at 400mm centres.	m²	1 166			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	17			
						<u> </u>
	Carried To Section Summary			R		
	Section No. 2					
	Bill No. 8					
	Ceilings Partitions And Access Flooring					
	60					

					Mokha	iri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 9					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	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.					
	SUNDRIES					
	Brass or equal approved:					
1	Sliding stays plugged.	No	230			
2	Window handle plugged.	No	156			
3	Peg stay plugged.	No	156			
	Locks:					
	Solid or equal approved:					
4	CZ6822461 "Gower" Four lever lockset.	No	36			
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved					
5	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged	No	20			
	LOCKS					
	Solid or equal approved					
6	'Code 63' padlock plugged.	No	20			
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC					
7	Pinning board 2400 x 1200mm high plugged.	No	24			
8	White Magnetic Writing Board 4000 x 1200mm	No	12			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 9					
	Ironmongery 61					
1			I I		1	100

Mokhari SS Unit Quantity Rate Amount Greenfield steel lockers with standard baked enamel finish Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork. 9 12 No Carried to Collection R Section No. 2 Bill No. 9 Ironmongery 62

1		1	Amount	I
BILL NO. 9 IRONMONGERY COLLECTION		Page No		
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	Drought Fornard Horn Fugo	62		
		02		
	Carried To Section Summary	R		
Section No. 2				
Bill No. 9 Ironmongery				
	63			

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		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 10					
	METALWORK					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	MILD STEEL HANDRAILS AND BALUSTRADING					
	Mild steel handrails and balustrades fixed to base plates constructed of two number 6mm steel flat bar cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm fillet welds chemical anchors (bolts included), 12mm dia. Mild steel round spaced at 150mm centres,					
	pedrilled openning 3No. In each upright, top rail to be 30mm thick x 100mm wide steel					
1	Balustrading and handrails approximately 1000mm high fixed to concrete.	m	10			
	Mild Steel Poles					
2	76 x 76 x 3mm mild steel square tubing columns 3m high secured on top of foundation with 5mm thick fixing plate including 10mm dia 4No. bolts	No	2			
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
3	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame					
	bolted to brickwork.	No	20			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 10 Metalwork					
	Metalwork 64					
I					II	

1		Unit	Quantity	Rate	Amount	
	Repair to existing steel frames					
4	Repair to existing steel frames including replacing striking plates	No	20			
	GALVANISED STEEL GATES, SCREENS, ETC					
5	Frame and gate out of 50 x 25 x 1.6mm M/S rectangular tubing mitre 45 drgrees at corner before welded and secured in openning with brackets welded to gate (backed with expanded metal mesh on inside) and bolted to wall Double gate 2000 x 4 370mm high, each leaf of 920 x 4					
5	320mm high, with ears for padlock and 150mm drop bolt welded on with keep in concrete	No	2			
	STEEL WINDOWS, DOORS, ETC					
	Standard SS Industrial windows with 12 x 12 (B33) solid burglar bars to all sashes:					
	Description					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
6	Window type SS41/SS41, 2 604 x 1 956mm high with	No	2			
	STEEL ROLLER SHUTTERS ETC					
	Standard Wispeco or equal approved chromadek steel roller shutters fixed to brickwork or concrete					
7	Roller shutter for 2 185 x 2 400mm high opening	No	5			
	Carried to Collection			R		
	Section No. 2					
	Bill No. 10 Metalwork					
	65					104

Amount <u>BILL NO. 10</u> **METALWORK COLLECTION** Page No Brought Forward from Page 64 65 Carried To Section Summary R Section No. 2 Bill No. 10 Metalwork 66

					Mokha	ri SS
1		Unit	Quantity	Rate	Amount	1
	SECTION NO. 2					
	Renovations (12CR, 16Waterborne, Nutrition)					
	BILL NO. 11 PLASTERING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive ceramic tiles:					
1	30mm Thick on floors and landings.	m²	902			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2		m²	72			
	INTERNAL PLASTER					
	Cement plaster steel trowelled, on brickwork					
3		m²	98			
4	Narrow widths	m²	5			
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	Carried To Section Summary Section No. 2			R		<u> </u>
	Bill No. 11					
	Plastering					
	67					
			'			106

		Mokhari							
	I	Unit	Quantity	Rate	Amount				
	<u>SECTION NO. 2</u> <u>Renovations (12CR, 16Waterborne, Nutrition)</u> <u>BILL NO. 12</u>								
	TILING								
	PREAMBLES For preambles see "Specification of materials and methods to be used - PW371								
	FLOOR TILING								
	300 x 300 x 11.5mm ceramic floor tiles (Prime Cost amount R250.00/m2 delivered excluding vat) fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound								
1	On floors and landings.	m²	895						
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	694						
	Carried To Section Summary Section No. 2 Bill No. 12 Tiling			R					
	68								

Unit     Quantity     Rate     Amount       SECTION NO.2       Renovations (12CR. 16Waterborne. Nutrition)       BillLNO.13       PLUMBING AND DRAINAGE       PRES       Progresmblessee "Specification of materials and methods to be used - PW371       SUPPLEMENTARY PREAMBLES       Concrete pipess       Physes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber reals       Pipes of 40mm diameter and smaller shall be plain ended with solvent welded UPVC loces sockets and fittings.       Pipes of 40mm diameter and smaller shall be plain ended with solvent welded UPVC loces sockets and fittings.       Pipes of 30mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints.       Bends shall be uPVC and all there fittings shall be cast iron, all with similar push-in type joints.       Copper pipes       Unit be boder. Class 3 (thin walled hard drawn jppes shall orny be bent with bender's with spipe shall orny be bent with spipe shall be cast iron, all with similar push-in type integraf rubber (fings shall be cast in min all push in type of the class of thin walled hard drawn jupes shall orny be bent with bender's with spipe shall orny be bent with bender's with spipe shall orny be bent with adde for King to walls etc. casting in, building in or suspending not exceeding 1m below suspension level					Mokha	ri SS
Renovations (12CR, 16Waterborne, Nutrition)         BLL No. 13         PLUMBING AND DRAINAGE         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.         uPVC pressure pipes and fittings:         Pipes of 40mm diameter and smaller shall be plain ended with pub-in type integral rubber ring joints.         Bend spigots with pub-in type integral rubber ring joints.         Berd Shall be uPVC and all other fittings shall be cast iron, all with similar pub-in type joints.         Copper pipes:         Pipes scale Class 0 (thin walled half-hard) pipes of the class stated.         Copper pipes:         Popes of SOmm diameter and greater shall have sockets and fittings.         Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled half-fard) pipes shall on to be bent. Class 1 (thin walled half-hard) pipes shall on be bent with benders with inner and outer formers.         Filtings to copper waste, vert and anti-sphon pipes, capillary solder fittings and compression fittings shall be used in walls or in ground.         Evend with SO 2016. Only compression fittings shall be used in walls to cast in on yound.         Exiting to copper waste, vert and anti-sphon pipes, capillary solder fittings thall comply with ISO 2016. Only compression fittings shall be u	1	Unit	Quantity	Rate	Amount	1
Renovations (12CR, 16Waterborne, Nutrition)         BLL No. 13         PLUMBING AND DRAINAGE         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rollars.         Pipes of 40mm diameter and smaller shall be plain ended with public htype joints.         Bod of things:         Pipes of 50mm diameter and greater shall have sockets and fittings.         Pipes of 50mm diameter and greater shall have sockets and singits with public htype joints.         Bends shall be uPVC and all other fittings shall be cast iron, all with similar public hard pipes of the diass stated. Class 0 (thinu walled half-hard) pipes shall on to be bent. Class 1 (thinu walled half-hard) pipes shall on to be other class of the walled half-hard pipes of the diass stated. Simple on the diass stated. Simple on the diass stated. Simple on the diass that the dual thalf-hard pipes of the class stated. Class 0 (thinu walled half-hard) pipes shall on to be bent. Class 1 (thinu walled half-hard) pipes shall on the bent. Class 1 (thinu walled half-hard) pipes shall be jorebrew and the walled half-hard pipes of the class stated. Disper walles, we mand anti-sphyphon pipes, capillary solder fittings and compression fittings shall be comperimented thype. Capillary solder fittings and compression fittings shall be complexes. The disperiment of the disperiman. Capillary solder fittings and compression fittings shall be						
Renovations (12CR, 16Waterborne, Nutrition)         BLL No. 13         PLUMBING AND DRAINAGE         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rollars.         Pipes of 40mm diameter and smaller shall be plain ended with public htype joints.         Bod of things:         Pipes of 50mm diameter and greater shall have sockets and fittings.         Pipes of 50mm diameter and greater shall have sockets and singits with public htype joints.         Bends shall be uPVC and all other fittings shall be cast iron, all with similar public hard pipes of the diass stated. Class 0 (thinu walled half-hard) pipes shall on to be bent. Class 1 (thinu walled half-hard) pipes shall on to be other class of the walled half-hard pipes of the diass stated. Simple on the diass stated. Simple on the diass stated. Simple on the diass that the dual thalf-hard pipes of the class stated. Class 0 (thinu walled half-hard) pipes shall on to be bent. Class 1 (thinu walled half-hard) pipes shall on the bent. Class 1 (thinu walled half-hard) pipes shall be jorebrew and the walled half-hard pipes of the class stated. Disper walles, we mand anti-sphyphon pipes, capillary solder fittings and compression fittings shall be comperimented thype. Capillary solder fittings and compression fittings shall be complexes. The disperiment of the disperiman. Capillary solder fittings and compression fittings shall be						
BiLL No. 13         PLEMBING AND DRAINAGE         PREABLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.         uPVC pressure pipes and fittings:         Pipes of 40mm diameter and smaller shall be plain ended with solvent wellded uPVC loose sockets and fittings.         Pipes of 50mm diameter and greater shall be plain ended with solvent wellded uPVC loose sockets and fittings.         Popes shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.         Bord shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.         Copper pipes:         Pipes shall be hard drawn and half-hard pipes of the class stated.         Cobser Volta Class 3 (their) welled hard framp) pipes shall not be bent. Class 1 (thin walled hard framp) pipes shall on type bent with honders with inner and outer formers.         Cobrae Vater fittings and compression fittings shall be used in walls or in ground. <b>Exiting of pipes</b> Unless specifically otherwise stated, descriptions of pipes shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground. <b>Carried to Collection</b> R         Casting the bard otherwise stated, descriptions of pipes shall be drame to include for fixing to	SECTION NO. 2					
PLUMEING AND DRAINAGE         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spioqi joints with rubber rings.         uPVC pressure pipes and fittings:         Pipes for water supply shall be of the class stated.         Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and stitings.         Pipes of 50mm diameter and greater shall have sockets and spioqu sink uPvC integral rubber ring joints.         Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.         Coper pipes:         Pipes do form diameter and greater shall have sockets and spioqu sink and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled hard drawn) pipes shall be cast iron, all with similar push-in type joints.         Coper pipes:         Piltings to coper waste, vent and anti-sysphon pipes, capillary solder fittings and compression fittings shall be used in walls or in ground.         Exting of pipes         Unless specifically otherwise stated, descriptions of pipes shall comply with ISO 2016. Only compression fittings shall be used in walls to include for fitting to walls etc. casting in, building in or suspending not exceeding 1m below suspension level         Carried to Collection       R         Recti	Renovations (12CR, 16Waterborne, Nutrition)					
PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.         uPVC pressure pipes and fittings:         Pipes of 40mm diameter and smaller shall be plain ended with solvent wellded uPVC loose sockets and fittings.         Pipes of 50mm diameter and greater shall have sockets and fittings.         Pipes of 50mm diameter and greater shall have sockets and fittings.         Pipes of 50mm diameter and greater shall have sockets and fittings.         Pipes of 50mm diameter and greater shall have sockets and fittings shall be uard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled hard drawn), class 2 (half-hard) and class 3 (theavy walled half-hard), class 2 (half-hard) and class 3 (theavy walled half-hard), class 2 (half-hard) and class 3 (theavy solder fittings and compression fittings shall be "Cobra Waterech" type. Capillary solder fittings shall be "Cobra Waterech" type. Capillary solder fittings and class state!         Unless specifically otherwise stated, descriptions of pipes shall be used in walls or in ground.         Example       Carried to Collection         R	BILL NO. 13					
For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.         uPVC pressure pipes and fittings:         Pipes for water supply shall be of the class stated.         Pipes for water supply shall be of the class stated.         Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.         Pipes of 50mm diameter and greater shall have sockets and similar push-in type joints.         Bods shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.         Copport pipes:         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 hard framd) pipes shall be cast iron, all with similar push-in type joints.         Copport pipes:         Pipes shall be hard drawn and half-hard pipes shall not be bent. Class 1 (thin walled hard drawn) pipes, shall be cast iron, all with similar occupare solution fittings shall be Cobra Watertech type. Capillary solider fittings shall be compression fittings shall be compression fittings shall be used in walls or in ground.         Exiting of pipes         Unless specifically otherwise stated, descriptions of pipes shall how usepension level         Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, buildin	PLUMBING AND DRAINAGE					
methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.         UPVC pressure pipes and fittings:         Pipes of norm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.         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 tron, all with similar push-in type joints.         Copper pipes:         Pipes of Somm diameter and greater shall have sockets and spigots with push-in type joints.         Copper pipes:         Pipes shall be hard drawn and half-hard pipes shall not be bent. Class 1 (thin walled hard drawn) pipes shall only be bent with benders with inner and outer formers.         Fittings to copper waster, went and anti-tsyphon pipes, capillary solder fittings and compression fittings shall be used in walls or in ground.         Fixing of pipes Listings to capillary solder for insystant fittings shall be used in walls or in ground.         Charried to Collection       R         Carried to Collection       R         Method to fitting and compression fittings shall be used in walls on a supending not exceeding 1m below suspension level       R	PREAMBLES					
Concrete pipes:         Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.         uPVC pressure pipes and fittings:         Pipes for water supply shall be of the class stated.         Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.         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.         Copper pipes:         Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled half-hard) pipes shall on be bent. Class 1 (thin walled half-hard) pipes shall on be bent vith benders with inner and outer formers. Fittings to copper waster, we nat an ant-sybhon pipes, capillary solder fittings and compression fittings shall be cobra Waterech type. Capillary solder fittings shall be used in walls or in ground.         Fixing of pipes Mulles or in ground.         Carried to Collection S of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level         Carried to Collection No. 2 Bill No. 13 Plumbing And Drainage						
Pipes shall be jointed with oubber rings.         uPVC pressure pipes and fittings:         Pipes of water supply shall be of the class stated.         Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.         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.         COpper pipes:         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 hard hard) pipes shall not be bent. With benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground.         Fixing of pipes Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level         Carried to Collection       R         Carried to Collection       R	SUPPLEMENTARY PREAMBLES					
or socket and spigot joints with rubber rings.  uPVC pressure pipes and fittings:  Pipes of water supply shall be of the class stated.  Pipes of domm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.  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. <b>Copper pipes:</b> Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard frawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (haff- hard) and class 3 (heavy walled half-hard), pipes shall comply with 1950 2016. Only compression fittings shall be cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground. <b>Fixing of pipes</b> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level  Carried to Collection R  Section No. 2 Bill No. 13 Plumbing And Drainage	Concrete pipes:					
Pipes for water supply shall be of the class stated.         Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.         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 ion, all with similar push-in type joints. <b>Copper pipes:</b> Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled half-hard), class 2 (half- hard) and class 3 (heavy walled half-hard) pipes shall not be bent. Class 1 (thin 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 shall be cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground. <b>Fixing of pipes</b> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level         Carried to Collection       R         Bil No. 13         Plumbing And Drainage						
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.       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. <b>Copper pipes:</b> Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled half-hard) pipes shall not be bent. Class 1 (thin 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 shall be 'Cobra Watertech' type. Capillary solder fittings shall be cused in walls or in ground. <b>Fixing of pipes</b> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level         Carried to Collection       R         R	uPVC pressure pipes and fittings:					
erided with solvent welded uPVC loose sockets and fittings. 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. <b>Copper pipes:</b> 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 water, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground. <b>Fixing of pipes</b> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level <b>Carried to Collection</b> <b>R</b> <b>Carried to Collection</b> <b>R</b>	Pipes for water supply shall be of the class stated.					
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. Copper pipes: Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled half-hard), pipes shall not be bent. Class 1 (thin 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 be 'Cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground. Fixing of pipes Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level Carried to Collection R Section No. 2 Bill No. 13 Plumbing And Drainage	ended with solvent welded uPVC loose sockets and					
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 shall be 'Cobra Watertech' type. Capillary solder fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground.         Fixing of pipes         Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level         Carried to Collection       R         Section No. 2       Bill No. 13         Plumbing And Drainage       Carried to Collection	and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast					
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         comply with ISO 2016. Only compression fittings shall         comply with ISO 2016. Only compression fittings shall be         used in walls or in ground.         Fixing of pipes         Unless specifically otherwise stated, descriptions of         pipes shall be deemed to include for fixing to walls etc.         casting in, building in or suspending not exceeding 1m         below suspension level         Carried to Collection         R         Section No. 2         Bill No. 13         Plumbing And Drainage	Copper pipes:					
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level  Carried to Collection  R  Plumbing And Drainage	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					
pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level  Carried to Collection R  R	Fixing of pipes					
Section No. 2 Bill No. 13 Plumbing And Drainage	pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m					
Section No. 2 Bill No. 13 Plumbing And Drainage						
Section No. 2 Bill No. 13 Plumbing And Drainage						
	Section No. 2			R		
69						
	69					

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	Unit	Quantity	Rate	Amount	I
Reducing fittings:					
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.					
Wire gratings:					
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.					
Septic tanks:					
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.					
Exposed concrete surfaces:					
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.					
Excavations:					
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
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 clause 3, 5.5, 5.6, 5.7 and 7 of SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection Section No. 2 Bill No. 13			R		
Plumbing And Drainage					
70					
		. 1	I		400

Unit Quantity Rate Amount Stainless steel basins, sinks, wash troughs, urinals, etc: Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable. Waste unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. **RAINWATER DISPOSAL** Approved .6mm galvanised sheet iron with "chromadek" finish ,in: 100 x 100mm Eaves gutters 337 1 m 2 Extra over eaves gutter for angle/corner. No 30 3 Extra over eaves gutter for stopped end 30 No Extra over eaves gutter for outlet for 75mm pipe. 4 No 48 5 75mm Diameter rainwater pipes. m 192 6 Extra over rainwater pipe for bend. No 48 7 Extra over rainwater pipe for shoe. 48 No FIRE APPLIANCES ETC. 'Chubb' or equal approved: 8 9kg Dry chemical fire extinguisher plugged. No 17 **RAINWATER HARVESTING Rainwater harvesting** Allow a sum of R15 000.00/each (Fifteen Thousand 9 Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details No 8 Carried to Collection R Section No. 2 Bill No. 13 Plumbing And Drainage

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1		1 1	Amount	I
BILL NO. 13				
PLUMBING AND DRAIN	AGE			
<b>COLLECTION</b>				
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Bill No. 13				
Plumbing And Drainage				
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					Mokha	ri SS
		Unit	Quantity	Rate	Amount	1
	SECTION NO. 2 Renovations (12CR, 16Waterborne, Nutrition) BILL NO. 14 GLAZING PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 GLAZING TO STEEL WITH PUTTY Smm Clear float glass:					
1	Panes not exceeding 0,1m2.	m²	65			
	Carried To Section Summary Section No. 2			R		<u> </u>
	Bill No. 14					
	Glazing 73					

					Mokhari SS
1		Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	Renovations (12CR, 16Waterborne, Nutrition)				
	<u>BILL NO. 15</u>				
	PAINTWORK				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371				
	ON FLOATED PLASTER				
	Prepare , etc as specified and apply two coats of super acrylic paint:				
1	On interior walls.	m²	98		
	ON FIBRE-CEMENT, ETC.				
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	On ceilings and cornices.	m²	1 166		
3	On fascias and barge boards.	m²	373		
	ON METAL				
	Prepare, etc as specified and apply two coats of gloss enamel paint on :				
4	Door frames	m²	54		
5	On windows with burglar bars (both sides measured).	m²	150		
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	110		
7	Steel poles	m	6		
8	Palisade Fence (both sides measured over the full flat area).	m²	3 000		
	Prepare, etc as specified and paint inside eaves gutters with waterproofing based paint:				
9	Inside eaves gutters with waterproofing based paint	m²	131		
	ON WOOD, WOOD BOARD				
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:				
10	On general surfaces of doors.	m²	53		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 15				
	Paintwork				
	74				

Unit Quantity Rate Amount ON WOOD SURFACES One coat alkyd based universal undercoat and two coat superior quality universal enamel paint Doors m² 66 11 Carried to Collection R Section No. 2 Bill No. 15 Paintwork 75

Amount <u>BILL NO. 15</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 74 75 Carried To Section Summary R Section No. 2 Bill No. 15 Paintwork 76

Amount

			Amount
	SECTION NO. 2		
	Renovations (12CR, 16Waterborne, Nutrition)		
	SECTION SUMMARY		
Bill No.		Page	
1	ALTERATIONS	45	
2	EARTHWORKS	48	
3	CONCRETE, FORMWORK AND REINFORCEMENT	51	
4	MASONRY	54	
5	WATERPROOFING	55	
6	ROOF COVERINGS	56	
7	CARPENTRY AND JOINERY	59	
8	CEILINGS PARTITIONS AND ACCESS FLOORING	60	
9	IRONMONGERY	63	
10	METALWORK	66	
11	PLASTERING	67	
12	TILING	68	
13	PLUMBING AND DRAINAGE	72	
14	GLAZING	73	
15	PAINTWORK	76	
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	Section No. 2 SECTION SUMMARY		
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# **SECTION NO. 3**

## 2 x 5 Classroom Block

		ا ا ما ا	Questit	Dete	Mokhari :	55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	BILL NO. 1					
	FOUNDATIONS					
	PREAMBLES					
	For preambles see " Specification of materials and methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	580			
	REMOVAL OF TREES, ETC.					
	Taking out and removing, grubbing up roots and filling in holes:					
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1			
	EXCAVATION, FILLING, ETC OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep:					
3	Trenches.	m³	157			
	Extra over trench and hole excavations in earth for excavation:					
4	Soft rock.	m³	15			
5	Hard rock.	m³	8			
	Risk of collapse of excavations:					
6	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	418			
	Keeping excavations free of water:					
7	Keeping excavations free of all water other than subterranean water.	Item				
	Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:					
8	Backfilling to trenches, holes, etc.	m³	72			
9	Under floors, steps, pavings, etc.	m³	62			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 1					
	Foundations 79					
I	79					

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		Unit	Quantity	Rate	Amount	
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):					
10	Under floors, steps, pavings, etc.	m³	103			
	Cart Away					
	Extra over excavation for cart away:					
11	Surplus material from excavations on site to a dumping site be located by the contractor	M³	23			
	Coarse river sand filling supplied by the Contractor:					
12	Under floors etc.	m³	21			
	COMPACTION					
	Compaction of surfaces:					
13	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 90%.Mod AASHTO density.	m²	410			
	Prescribed density tests on filling:					
14	Modified AASHTO Density test.	No	15			
	SOIL POISONING					
	Soil insecticide:					
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	410			
16	To bottoms and sides of trenches etc.	m²	585			
	Carried to Collection Section No. 3 Bill No. 1 Foundations 80			R		_

I		1	Amount	
BILL NO. 1 FOUNDATIONS COLLECTION		Page No		
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Section No. 3 Bill No. 1	Camed To Section Summary	ĸ		
Foundations	01			
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					Mokha	ari SS
		Unit	Quantity	Rate	Amount	1
	SECTION NO. 3					
	2 x 5 Classroom Block					
	BILL NO. 2 CONCRETE, FORMWORK AND REINFORCEMENT					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	UNREINFORCED CONCRETE					
	15Mpa/19mm Concrete					
1	Aprons cast in panels.	m³	12			
2	Ramps.	m³	3			
3	Thickening down the edge of apron 150mm deep,					
Ū	200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc	m	119			
	REINFORCED CONCRETE					
	25 MPa/19mm Concrete:					
4	Footings.	m³	37			
5	Surface beds cast in panels on waterproofing.	m³	48			
	TEST BLOCKS					
	Test blocks:					
6	Making and testing set of three 150 x 150 x 150mm					
0	concrete strength test cubes (Provisional).	Sets	10			
7	Paving to falls.	m²	120			
8	Ramps to falls.	m²	4			
	FINISHING TOP SURFACE OF CONCRETE					
	ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP Work Group No 111)					
	Rough Formwork to Sides:					
9	Edges and reveals not exceeding 300mm high or wide.	m	124			
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed:					
10	Not exceeding 300mm wide.	m	60			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 2 Construct Formwork And Beinforcement					
	Concrete, Formwork And Reinforcement 82					
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Ι		Unit	Quantity	Rate	Amount	
	Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:					
	12mm Joints not exceeding 300mm high.	m	75			
	Dividing Strips ,etc					
	6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	5			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	410			
	Steel reinforcement to structural concrete work:					
•	Various sizes	Tonnes	6			
					<u></u>	
	Carried to Collection			R		
	Section No. 3					
	Bill No. 2 Concrete, Formwork And Reinforcement					
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	I	Amount	
BILL NO. 2			
CONCRETE, FORMWORK AND REINFORCEMENT			
COLLECTION			
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Carried To Section Summary			
Carried To Section Summary Section No. 3	R		
Bill No. 2			
Concrete, Formwork And Reinforcement 84			
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					Mokha	iri SS
1		Unit	Quantity	Rate	Amount	1
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	BILL NO. 3					
	MASONRY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	BRICKWORK					
	Sizes in descriptions:					
	Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.					
	Face bricks:					
	Bricks shall be ordered timeously to obtain uniformity in size and colour.					
	Pointing:					
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.					
	SAMPLES					
	Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site.					
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
1	One brick walls	m²	217			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
2	One brick walls	m²	671			
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
3	150mm Wide reinforcement built in horizontally.	m	2 930			
5			2 000			
	Turning pieces:					
4	220mm Wide turning piece to lintels etc.	m	56			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 3					
	Masonry					
	85					

		Linit	Quantity	Dete		11 55
		Unit	Quantity	Rate	Amount	
	Galvanised wire ties etc:					
5	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	120			
	Galvanised hoop iron cramps, ties, etc:					
6	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	120			
	Prestressed fabricated concrete lintels including necessary temporary supports					
7	115 x 100mm Lintels in lengths not exceeding 3m	m	5			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
8	Extra over brickwork for face brickwork.	m²	315			
9	Extra over brickwork for face brickwork in foundations (Provisional).	m²	54			
10	Half brick in facings in beamfilling	m²	36			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R3500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
11	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	61			
12	230mm Wide sill set sloping and slightly projecting.	m	56			
13	Coping on top of one brick wall pointed on exposed faces	m	54			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
14	12 x 152mm Wide sills set flat and slightly projecting.	m	56			
	Carried to Collection			R		
	Section No. 3			IX IX		
	Bill No. 3					
	Masonry 86					
	00					

Amount <u>BILL NO. 3</u> MASONRY **COLLECTION** Page No Brought Forward from Page 85 86 Carried To Section Summary R Section No. 3 Bill No. 3 Masonry 87

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I		Unit	Quantity	Rate	Amount	1
	SECTION NO. 3					
	2 x 5 Classroom Block					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
1	In walls.	m²	50			
	One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	410			
	JOINT SEALANTS ETC					
	silicone sealing compound including backing cord, bond breaker,primer,etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	118			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	48			
						<u> </u>
	Carried To Section Summary			R		
	Section No. 3					
	Bill No. 4					
	Waterproofing 88					
I	00				I	107

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I	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	<u>BILL NO. 5</u>					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	PROFILED METAL SHEETING AND ACCESSORIES					
	<u>.5mm "Klip-lok light industrial" galvanised troughed</u> <u>sheet steel with "chromadek" finish one side,fixed to</u> <u>76 x 50mm purlin complete under 5year quarantee</u> <u>by an approved firm of specialists, all in accordance</u> <u>with the materials supplied and methods employed</u> <u>by the manufacturer</u>					
1	By the manufacturer Roof covering with pitch not exceeding 25 degrees.	m²	555			
			000			
	<u>.8mm galvanised sheet iron, with "chromadek" one</u> <u>side in:</u>					
2	Standard type FK3 ridge or hip flashing	m	54			
	Carried To Section Summary Section No. 3 Bill No. 5 Roof Coverings			R		
	89					

				Mokha	ari SS
1	Unit	Quantity	Rate	Amount	I
SECTION NO. 3					
2 x 5 Classroom Block					
BILL NO. 6 CARPENTRY AND JOINERY					
CARPENTICI AND JOINENT					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Particle board:					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.					
Joinery:					
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.					
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.					
Fixing:					
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.					
Decorative laminate finish:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.					
PREFABRICATED ROOF TRUSSES, ETC.					
Plate nailed timber roof truss construction:					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .					
Carried to Collection			R		
Section No. 3 Bill No. 6					
Carpentry And Joinery					
90					

I		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped ends approximately 483m2 (five classrooms) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION					
	Sawn softwood:					
2	114 x 38mm Wall plates.	m	119			
3	114 x 38mm rafters exceeding 2.4m and not exceeding 3.9m.	m	45			
4	50 x 76mm purlins.	m	240			
5	50 x 220mm support beam.	m	54			
	ROOF SUNDRIES					
	Sundries:					
6	Two coats creosote on sawn timbers.	m²	41			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre- cement:					
7	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	119			
	Wrought meranti doors:					
	Wrought meranti doors hung to steel frames:					
8	44mm Framed batten door 914 x 2032mm high of 44 x 150m top rail and stiles ,16 x 150mm middle ledge and braces and 22 x 220mm bottom rail, filled in with 22mmV-jointed one side boarding and covered on other side with 4mm plywood with veneer to match door, let into and including rebates all round.	No	5			
	DOORS ETC					
	40mm semi-solid flush doors with veneer					
9	40mm Door 813 x 2032mm high	No	5			
10	Shelving 400mm wide made up of 25mm thick hardwood top					
	and 250 x 250mm high triangular mild steel brackets bolted to					
	wall	m	52			
	<u>FITTINGS</u>					
	Carried to Collection			R		
	Section No. 3 Bill No. 6			K		
	Carpentry And Joinery					
	91					120

		1	Amount	I
BILL NO. 6				
CARPENTRY AND JOIN	ERY			
<b>COLLECTION</b>				
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	Carried To Section Summary	R		
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Bill No. 6				
Carpentry And Joinery	92			
	52	I	II I	I

					Mokha	ri SS
I	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	<u>SECTION NO. 3</u> 2 x 5 Classroom Block					
	BILL NO. 7					
	CEILINGS PARTITIONS AND ACCESS FLOORING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	410			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	265			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec or equal approved fibre-cement					
	boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres.	m²	410			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	5			
	Carried To Section Summary			R		
	Section No. 3					
	Bill No. 7					
	Ceilings Partitions And Access Flooring 93					
I	30				1	

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	1
	SECTION NO. 3					
	2 x 5 Classroom Block					
	<u>BILL NO. 8</u> IRONMONGERY					
	IKONMONGERT					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	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.					
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
1	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	5			
	LOCKS					
	Solid or equal approved:					
2	"Code 630" or equal approved padlock.	No	5			
	'Solid" or equal approved					
3	CZ6822461 "Gower" Four lever lockset.	No	10			
	SUNDRIES					
	Solid or equal approved:					
4	38mm Diameter rubber door stop plugged.	No	10			
	PINNING BOARDS, WRITING BOARDS,					
	PROJECTION SCREENS, ETC					
_	Vitrex or equal approved:		10			
5	Pinning board 2400 x 1200mm high plugged.	No	10			
6	White magnetic Writing Board 4000mm x 1200mm	No	5			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 8					
	Ironmongery					
	94					
						400

					Mokha	ari SS
		Unit	Quantity	Rate	Amount	1
	SHELVES ETC					
	Proprietary type steel shelving with standard powder coated finish					
7	Heavy duty double slot wall band 1800mm long,					
'	plugged	No	87			
8	Heavy duty shelf bracket for 300mm shelf plugged	No	348			
						+
	Carried to Collection			R		
	Section No. 3					
	Bill No. 8					
	Ironmongery 95					
	55				I	1

1		1	Amount	
BILL NO. 8 IRONMONGERY COLLECTION		Page No		
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	Carried To Section Summary	R		
Section No. 3 Bill No. 8				
Ironmongery	96			
	30			

					Mokha	ari SS
I		Unit	Quantity	Rate	Amount	I
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	BILL NO. 9					
	<u>METALWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	STEEL BALUSTRADES AND HANDRAILS					
	Mild steel handrails and balustrades fixed to base plates constructed of two number 6mm steel flat bar cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm fillet welds chemical anchors (bolts included), 12mm dia. Mild steel round spaced at 150mm centres, pedrilled openning 3No. In each upright, top rail to be 30mm thick x 100mm wide steel					
1	Steel handrails and balustrades 1000mm high	m	10			
	Mild Steel Poles					
2	76 x 76 x 3mm mild steel square tubing columns 3m high secured on top of foundation with 5mm thick fixing plate including 10mm dia 4No. bolts	No	17			
	Carried to Collection Section No. 3 Bill No. 9			R		
	Metalwork					
	97					
1	I		ı I			

					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	I
			_			
	COMBINATION DOOR FRAME WITH SECURITY GATE					
	Classroom combination door frame with security gate					
3	"Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame	No	5			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for one brick walls:					
4	Frame for door 813 x 2032mm high.	No	10			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33)					
	solid burglar bars to all sashes:					
5	Window Code 5/2 (NTY or equal approved), 1143 x 1332mm high.	No	45			
6	Window Code 5 (NTY or equal approved), 1143 x 846mm high.	No	6			
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
7	Triangular shaped (on elevation) residential section louvred ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louvre blades fixed to surround and covered at back with No. 256 galvanised mesh mosquito gauze,fixed with and including 3 x 20mm steel flat section cover strips screwed	No	2			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 9					
	Metalwork 98					
I					II	I

Amount <u>BILL NO. 9</u> **METALWORK COLLECTION** Page No Brought Forward from Page 97 98 Carried To Section Summary R Section No. 3 Bill No. 9 Metalwork 99

					Mokhar	ri SS
	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	BILL NO. 10					
	PLASTERING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive ceramic tiles:					
1	30mm Thick on floors to receive ceramic tiling.	m²	343			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	66			
	INTERNAL PLASTER					
	Cement plaster steel trowelled, on brickwork					
3	On walls	m²	657			
4	On narrow widths not exceeding 300mm wide	m²	24			
5	30 x 3mm Flat section brass dividing strips between different floor finishes.	m	5			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC (CPAP Work Group No 136)					
	Carried To Section Summary			R		
	Section No. 3			ĸ		
	Bill No. 10					
	Plastering					
	100					

	Mokhari SS						
		Unit	Quantity	Rate	Amount	I	
	SECTION NO. 3						
	<u>2 x 5 Classroom Block</u>						
	BILL NO. 11						
	TILING						
	PREAMBLES						
	For preambles see "Specification of materials and methods to be used - PW371						
	FLOOR TILING						
	<u>300 x 300 x 11.5mm ceramic floor tiles (Prime Cost</u> amount R250.00/m2 excluding vat) fixed with						
	adhesive to screed (screed elsewhere) and flush						
	pointed with tinted waterproof jointing compound						
1	On floors and landings.	m²	343				
2		~	265				
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	265				
					<u></u>		
	Carried To Section Summary			R			
	Section No. 3						
	Bill No. 11						
	Tiling						
	101						

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	
SECTION NO. 3					
2 x 5 Classroom Block					
BILL NO. 12 PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.					
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.					
Copper pipes:					
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.					
Fixing of pipes					
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level					
Corriad to Collection			-		
Carried to Collection Section No. 3			R		
Bill No. 12					
Plumbing And Drainage					
102					

				Mokha	iri SS
1	Unit	Quantity	Rate	Amount	1
Reducing fittings:					
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.					
Wire gratings:					
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.					
Septic tanks:					
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.					
Exposed concrete surfaces:					
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.					
Excavations:					
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
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 clause 3, 5.5, 5.6, 5.7 and 7 of SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection Section No. 3			R		
Bill No. 12					
Plumbing And Drainage					
103					

Unit Quantity Rate Amount Stainless steel basins, sinks, wash troughs, urinals, etc: Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable. Waste unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. **RAINWATER DISPOSAL** Approved .6mm galvanised sheet iron with "chromadek" finish ,in: 100 x 100mm Eaves gutters 119 1 m 2 Extra over eaves gutter for angle/corner. No 4 3 Extra over eaves gutter for outlet for 75mm pipe. No 30 75mm Diameter rainwater pipes. 4 m 120 5 Extra over rainwater pipe for bend. No 30 6 Extra over rainwater pipe for shoe. No 30 FIRE APPLIANCES ETC. 'Chubb' or equal approved: 9kg Dry chemical fire extinguisher. 7 No 5 **RAINWATER HARVESTING Rainwater Harvesting** 8 Allow a sum of R15 000.00/each (Fifteen Thousand Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details 2 No Carried to Collection R Section No. 3 Bill No. 12 Plumbing And Drainage 104

			Mokha	ri SS
1			Amount	I
BILL NO. 12 PLUMBING AND DRAIN COLLECTION	AGE	Page No		
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Section No. 3	Carried to Occilon Gammary	ĸ		
Bill No. 12 Plumbing And Drainage				
	105			

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		Unit	Quantity	Rate	Amount	I
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	BILL NO. 13					
	GLAZING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	5mm Clear float glass:					
1	Panes not exceeding 0,1m2.	m²	55			
	5mm obscure glass:					
2	Panes not exceeding 0,1m2.	m²	25			
						<u> </u>
	Carried To Section Summary			R		
	Section No. 3					
	Bill No. 13					
	Glazing					
	106					
						A A E

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I		Unit	Quantity	Rate	Amount	I
	SECTION NO. 3					
	<u>2 x 5 Classroom Block</u>					
	<u>BILL NO. 14</u>					
	PAINTWORK					
	PREAMBLES					
	Description					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	Description					
	For preambles see "Specification of materials and methods to be used - PW371					
	ON NEW INTERNAL FLOATED PLASTER SURFACES					
	One coat alkali resistant primer and two coats PVA emulsion paint for interior use					
1	Walls	m²	657			
	ON FIBRE-CEMENT, ETC.					
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:					
2	On ceilings and cornices.	m²	410			
3	-		119			
З	On fascias and barge boards.	m	119			
	<u>ON METAL</u>					
	Prepare, etc as specified and apply two coats of					
	gloss enamel paint on :					
4	Door frames	m²	6			
5	On windows with burglar bars (both sides measured).	m²	58			
6	On gates, grilles, burglar screens, balustrades, etc (both					
	sides measured over the full flat area).	m²	17			
7	Steel poles	m	21			
	Eaves Gutter					
8	Inside eaves gutter with waterproofing based paint	m²	42			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 14					
	Paintwork					
	107					

Unit Quantity Amount Rate Prepare,etc as specified and apply two coats of super acrylic Pva paint on: General surfaces of doors (interior). 7 9 m² ON WOOD, WOOD BOARD Prepare, etc as specified and apply two coats of polyurethane suede varnish: 10 On general surfaces of doors. m² 7 11 On laminated beam. m² 13 m² 57 On shelves. 12 Carried to Collection R Section No. 3 Bill No. 14 Paintwork

Amount <u>BILL NO. 14</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 107 108 Carried To Section Summary R Section No. 3 Bill No. 14 Paintwork 109

	1		Amount	
	SECTION NO. 3			
	2 x 5 Classroom Block			
	SECTION SUMMARY			
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1	FOUNDATIONS	81		
2	CONCRETE, FORMWORK AND REINFORCEMENT	84		
3	MASONRY	87		
4	WATERPROOFING	88		
5	ROOF COVERINGS	89		
6	CARPENTRY AND JOINERY	92		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	93		
8	IRONMONGERY	96		
9	METALWORK	99		
10	PLASTERING	100		
11	TILING	101		
12	PLUMBING AND DRAINAGE	105		
13	GLAZING	106		
14	PAINTWORK	109		
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	Carried to Final Summary	R		
	Section No. 3 SECTION SUMMARY			
	110			

# **SECTION NO. 4**

## **Medium Administration Block**

			<b>o</b>	<b>D</b> (	Mokha	
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 1					
	FOUNDATIONS					
	PREAMBLES					
	For preambles see " Specification of materials and methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	537			
	REMOVAL OF TREES, ETC.					
	Taking out and removing, grubbing up roots and filling in holes:					
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1			
	EXCAVATION, FILLING, ETC OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep:					
3	Trenches.	m³	134			
	Extra over trench and hole excavations in earth for excavation:					
4	Soft rock.	m³	9			
5	Hard rock.	m³	5			
	Risk of collapse of excavations:					
6	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	312			
	Keeping excavations free of water:					
7	Keeping excavations free of all water other than subterranean water.	Item				
	Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:					
8	Backfilling to trenches, holes, etc.	m³	23			
9	Under floors, steps, pavings, etc.	m³	42			
	Carried to Collection			R		
	Section No. 4 Bill No. 1					
	Foundations					
	112					

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	Forth filling ourplied by the Contractor and					
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):					
10	Under floors, steps, pavings, etc.	m³	173			
	Cart Away					
	Extra over excavation for cart away:					
11	Surplus material from excavations on site to a dumping site be located by the contractor	m³	28			
	Coarse river sand filling supplied by the Contractor:					
12	Under floors etc.	m³	15			
	COMPACTION					
	Compaction of surfaces:					
13	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 90%.Mod AASHTO density.	m²	297			
	Prescribed density tests on filling:					
14	Modified AASHTO Density test.	No	16			
	SOIL POISONING					
	Soil insecticide:					
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	297			
16	To bottoms and sides of trenches etc.	m²	445			
						<u> </u>
	Carried to Collection			R		
	Section No. 4					
	Bill No. 1 Foundations					
	113					
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1		1	Amount	
BILL NO. 1 FOUNDATIONS COLLECTION		Page No		
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Section No. 4 Bill No. 1				
Foundations	114			
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					Mokha	iri SS
I	I	Unit	Quantity	Rate	Amount	1
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 2					
	CONCRETE, FORMWORK AND REINFORCEMENT					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	UNREINFORCED CONCRETE					
	15Mpa/19mm Concrete					
1	Aprons cast in panels.	m³	11			
2	Ramps.	m³	4			
	Thickening down the edge of apron 150mm deep,					
3	200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc	m	79			
	REINFORCED CONCRETE					
	25MPa/19mm Concrete:					
4	Surface beds cast in panels on waterproofing.	m³	27			
5	Footings.	m³	27			
6	Slabs.	m³	2			
Ū						
	TEST BLOCKS					
7	Test blocks:					
7	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	20			
	FINISHING TOP SURFACE OF CONCRETE					
8	Paving to falls.	m²	79			
	ROUGH FORMWORK (DEGREE OF ACCURACY III)					
	Rough Formwork to Sides:					
9	Edges and reveals not exceeding 300mm high or wide.	m	25			
_	Rough Formwork to Soffits:					
10	Slabs propped up exceeding 1.5 and not exceeding					
10	3.5m high.	m²	10			
	Carried to Collection			R		
	Section No. 4					<u> </u>
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	115					

					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints					
	between horizontal concrete and brick surfaces					
	including cement mortar bed:		70			
11	Not exceeding 300mm wide.	m	70			
	Expansion joints with bitumen impregnated					
	softboard between vertical concrete and brick surfaces:					
10		-	75			
12	12mm Joints not exceeding 300mm high.	m	75			
	Dividing Strips ,etc					
13	6 x 38mm Angle iron step guard cast into concrete with					
	3x 6mm anchors	m	8			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
14	Type 193 fabric reinforcement in concrete surface beds,					
	slabs, etc.	m²	297			
15	Type 395 fabric reinforcement in concrete surface beds,					
	slabs, etc.	m²	10			
	Mild steel reinforcement to structural concrete work:					
16	10mm Diameter bars.	Tonnes	1.00			
	High tensile steel reinforcement to structural concrete work:					
17	20mm Diameter bars.	Tonnes	1.00			
18	16mm Diameter bars.	Tonnes	2.00			
	12mm Diameter bars.	Tonnes	1.00			
19		Tonnes	1.00			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	116					

		Amount
BILL NO. 2		
CONCRETE, FORMWORK AND REINFORCEMENT		
COLLECTION		
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Bill No. 2 Concrete, Formwork And Reinforcement		
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Unit     Cluanity     Rate     Amount       SECTION NO.4     Medium Administration Block     III. No.3       MasconRX     PEAMBLES     III. No.3       PREAMBLES     For preambles see "Specification of materials and methods to be used - PW371"     III. No.3       BICKWORK     Sizes in descriptions are given in brick units, 'one brick' shall represent the length and hall brick' the width of a brick.     III. No.3       Prices shall be ordered timeously to obtain uniformity in size and colour.     Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed. Nollow recessed pointing, etc.     SAMPLES       Samples of all masony building units, except those for walls described as 'had bearing' shall consist of 3 units to mevery 30 000 units delivered to site.     m ² BRICKWORK IN FOUNDATIONS (PROVISIONAL)     Bricks walls     m ² Prick walls     m ² 36       2     One brick walls     m ² 3     Piers     m ³ 4     Half brick walls     m ² 5     Half brick walls     m ² 6     One brick walls     m ² 6     One brick walls     m ² 7     14     Half brick walls						Mokha	iri SS
Medium Administration Block       Image: Constraint of the set of the		I	Unit	Quantity	Rate	Amount	
Medium Administration Block         BiLLANC.3         MASONRY         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371"         BRICKWORK         Sizes in descriptions:         Where sizes in descriptions are given in brick units, 'one brick shall be ordered timeously to obtain uniformity in size and colour.         Particle         Descriptions         Bricks shall be ordered timeously to obtain uniformity in size and colour.         Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square receased. Hollow recessed, weathered pointing, etc.         Samples of all masonry building units, except those for walls described as 'load bearing' shall consist of 30 units from every 30 000 units devered to site.         BRICKWORK IN FOUNDATIONS (PROVISIONAL) Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:         1       Half brick walls.         2       One brick walls         3       Piers         4       Half brick walls         5       Half brick walls         6       One brick walls         7       28         6       One brick walls         8       m ² 9       28         9       Carried to Collection         1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Medium Administration Block       Image: Constraint of the set of the							
Bill NO.3       MASCONRY         PREAMBLES       For preambles see "Specification of materials and methods to be used - PW371"         BRICKWORK       Sizes in descriptions:         Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.         Face bricks:       Bricks shall be ordered timeously to obtain uniformity in size and colour.         Pointing:       Descriptions of recessed pointing to fair face brickwork and face brickwork is described as 'toad bearing' shall consist of a mellong units to be used in walls described as 'toad bearing' shall consist of 30 units from every 30 000 units delivered to site.         BRICKWORK IN FOUNDATIONS (PROVISIONL)       Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:         1       Half brick walls       m ² 3       Piers       m ² 4       Half brick walls       m ² 5       Half brick walls in beam filling.       m ² 6       One brick walls       m ² 7       Desciny No. 4       Bil No. 3 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
MASONRY     PREAMBLES       For preambles see "Specification of materials and methods to be used - PW371"       BRICKWORK       Sizes in descriptions:       Where sizes in descriptions are given in brick units, 'one brick shall be ordered timeously to obtain uniformity in size and colour.       Pace bricks:       Bricks shall be ordered timeously to obtain uniformity in size and colour.       Postintin:       Descriptions of recessed, weathered pointing, etc.       Samples of all masonry building units. except those for walls described as 'load bearing' shall consist of a minimum of ounits. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units for weary 30.000 units delivered to sate.       BRICKWORK IN FOUNDATIONS (PROVISIONAL)       Brickswise strength) in Class I mortar: compressive strength) in Class I mortar: como							
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methods to be used - PW371"     BRICKWORK       Sizes in descriptions:     Where sizes in descriptions:       Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.     Face bricks:       Bricks shall be ordered timeously to obtain uniformity in size and colour.     Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathreed pointing, etc.       SAMPLES     Samples of all masonry building units, except those for walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site.       BRickWork for NFX bricks (14 MPa nominal compressive strength) in Class I mortar:     m ² 1     Half brick walls     m ² 2     One brick walls     m ² 3     Piers     m ³ 4     Half brick walls     m ² 5     Half brick walls     m ² 6     One brick walls     m ² 5     Section No. 4     Bil No. 3       Masonry     Section No. 4     Bil No. 3		PREAMBLES					
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Where sizes in descriptions are given in brick units, 'one brick 'shall represent the length and 'half brick' the width of a brick.       Image: Constraint of the length and 'half brick' the width of a brick.         Face bricks:       Bricks shall be ordered timeously to obtain uniformity in size and colour.       Image: Constraint of the length and 'half brick' the width of a brick.         Pointing:       Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.       Samples of all masony building units, except those for walls described as 'load bearing' shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units for every 30 000 units delivered to site.         BRICKWORK IN FOUNDATIONS (PROVISIONAL)       Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:         1       Half brick walls       m²       36         2       One brick walls       m²       130         BRICKWORK IN SUPERSTRUCTURE       Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:       3         3       Piers       m²       38         4       Half brick walls       m²       38         5       Half brick walls       m²       357         6       One brick walls       m²       357         6       One brick walls       m²       357		BRICKWORK					
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Bricks shall be ordered timeously to obtain uniformity in size and colour.       Pointing:         Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.       SAMPLES         Samples of all masonry building units, except those for walls described as load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as load bearing' shall consist of 30 units from every 30 000 units delivered to site.       BRICKWORK IN FOUNDATIONS (PROVISIONAL)         Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:       n       36         1       Half brick walls       m²       36         2       One brick walls       m²       130         BRICKWORK IN SUPERSTRUCTURE       Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:       3         3       Piers       m³       3         4       Half brick walls       m²       138         5       Half brick walls in beam filling.       m²       357         6       One brick walls       m²       357         Carried to Collection         R         Carried to Collection         R         Carried to Collection         R <td< td=""><td></td><td>brick' shall represent the length and 'half brick' the width</td><td></td><td></td><td></td><td></td><td></td></td<>		brick' shall represent the length and 'half brick' the width					
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Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.       SAMPLES         Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site.       BRICKWORK IN FOUNDATIONS (PROVISIONAL)         Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:       1         Half brick walls       m ² 36         Piers       m ³ 3         Half brick walls in beam filling.       m ² 138         Half brick walls       m ² 138         Firs       m ³ 3         Main brick walls       m ² 138         Half brick walls       m ² 138         Firs       m ³ 3         Image: Chick walls       m ² 138         Half brick walls       m ² 28         One brick walls       m ² 357         Carried to Collection       R       Image: Carried to Collection         Section No. 4       Bill No. 3       Masonry       357							
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2       One brick walls       m²       130         BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:							
BRICKWORK IN SUPERSTRUCTURE Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:       Image: mail of the strength in Class I mortar:         3       Piers       m³       3         4       Half brick walls       m²       138         5       Half brick walls in beam filling.       m²       28         6       One brick walls       m²       357 <b>R R Image: mail of the strength in Class I mortar:</b> Image: mail of the strength in Class I mortar:         6       One brick walls in beam filling.       m²       357 <b>R Image: mail of the strength in Class I mortar:</b> Image: mail of the strength in Class I mortar:         6       Section No. 4       Section No. 4 <b>Image: mail of the strength in Class I mortar:</b> Bill No. 3       Masonry       Image: mail of the strength in Class I mortar:       Image: mail of the strength in Class I mortar:	1	Half brick walls.	m²	36			
Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:       m³       a         Piers       m³       3         Half brick walls       m²       138         Half brick walls in beam filling.       m²       28         One brick walls       m²       357         Example 1       Carried to Collection       R         Section No. 4       Bill No. 3       Masonry	2	One brick walls	m²	130			
compressive strength) in Class I mortar:       m       m       m       m         3       Piers       m ³ 3       m       m       m         4       Half brick walls       m ² 138       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m       m		BRICKWORK IN SUPERSTRUCTURE					
4       Half brick walls       m²       138         5       Half brick walls in beam filling.       m²       28         6       One brick walls       m²       357         R							
5       Half brick walls in beam filling.       m²       28         6       One brick walls       m²       357          Carried to Collection       R	3	Piers	m³	3			
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Carried to Collection R	5	Half brick walls in beam filling.	m²	28			
Section No. 4 Bill No. 3 Masonry	6	One brick walls	m²	357			
Section No. 4 Bill No. 3 Masonry							
Section No. 4 Bill No. 3 Masonry		Carried to Collection			D		
Bill No. 3 Masonry					n		
118		-					
		118					

		Unit	Quantity	Rate	Amount	
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
7	75mm Wide reinforcement built in horizontally.	m	749			
8	150mm Wide reinforcement built in horizontally.	m	3 125			
	Prestressed fabricated lintels:					
9	110 x 75mm Lintels in lengths not exceeding 3m.	m	55			
	Turning pieces:					
10	110mm Wide turning piece to lintels etc.	m	55			
11	220mm Wide turning piece to lintels etc.	m	20			
	Galvanised wire ties etc:					
12	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork (Provisional)	No	125			
	Galvanised hoop iron cramps, ties, etc:					
13	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork (Provisional)	No	125			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
14	Extra over brickwork for face brickwork.	m²	297			
15	Extra over brickwork for face brickwork in foundations (Provisional).	m²	51			
16	Extra over brickwork for face brickwork to piers.	m²	4			
17	Half brick in facings in beamfilling	m²	27			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
18	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	54			
19	Extra over brickwork for brick-on-edge header course lintel pointed on face and 220mm soffit	m	17			
20	110mm cut brick Wide sills set flat	m	14			
	Carried to Collection Section No. 4 Bill No. 3 Masonry			R		
	119					

					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	
21	230mm Wide sill set sloping and slightly projecting.	m	10			
22	Coping on top of one brick wall pointed on exposed faces	m	14			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:					
23	12 x 152mm Wide sills set flat and slightly projecting.	m	8			
	Carried to Collection Section No. 4			R		
	Bill No. 3					
	Masonry					
	120					

Amount <u>BILL NO. 3</u> MASONRY **COLLECTION** Page No Brought Forward from Page 118 119 120 Carried To Section Summary R Section No. 4 Bill No. 3 Masonry 121

					Mokhari SS	
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
1	In walls.	m²	38			
	One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	297			
	JOINT SEALANTS ETC					
	Silicone sealing compound including backing cord, bond breaker,primer,etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional).	m	46			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary.	m	40			
	Carried To Section Summary Section No. 4 Bill No. 4			R		
	Waterproofing					
	122					

					Mokha	ri SS
1		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	General					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side (colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	376			
	0.58mm galvanised sheet iron, with "chromadek" one side in:					
2	Standard type FK3 ridge or hip flashing	m	26			
3	Standard valley flashing	m	16			
	Carried To Section Summary Section No. 4 Bill No. 5 Roof Coverings 123			R		
I	125				I	100

Unit     Quantity     Rate     Amount       SECTION NO.4     Medium Administration Block     Medium Administration Block       BillLNO.5     CARPENTRY AND JOINERY       PERABLES     Propresemblesses "Specification of materials and methods to be used - PW371       SUPLEMENTARY PREAMBLES       Particle board shall comply with the following specifications: a) SABS 1300 Particle board: interior type.       Joincry       Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.       Descriptions of hardwood pinery shall be deemed to include frames, transoms, mullions, rails, etc.       Descriptions of trames shall be deemed to be fixed with hardened stell nails or shot pins to brickwork or concrete.       PECorative laminate finish shall be deemed to be fixed with hardened stell nails or shot pins to brickwork or concrete.       PECorative laminate finish shall be deemed to fixed with hardened stell nails or shot pins to brickwork or concrete.       PECorative laminate finish.       These are maximum 1200mm centres Rod?       Trusses are allowing at the end of these bills of quantities for the days and the days and the days and the day and the days and the days and the days and the day and the day and the days and the day and the days and the day and the day and the day and the day and the days a					Mokha	ri SS
Medium Administration Block         BiLL No. 6         CARPENTRY AND JOINERY         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Particle board:         Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type J SABS 1301 Particle board: All type J material flooring the particle board with adjacent similar floish.         Laminate floish shall be glued under pressure. Edge strips shall be deligined buil point color trusses; SABT management flooring the particle board and flooring type J Sabs 1300m centres Roof covering is Klip-lok trusses and exterior and flooring type J Registered Professional Engineerin accordance with the draft SABS Code of Practice for		Unit	Quantity	Rate	Amount	I
Medium Administration Block         BiLL No. 6         CARPENTRY AND JOINERY         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Particle board:         Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.         Joinery:         Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.         Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.         Descriptions and the deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.         PeterABRICATED ROOF TRUSSES, ETC.         Plate nailed timber roof truss construction:         The following is applicable in respect of roof trusses: Trusses are a maximum 1200mm centres Roof covering is Klip-lok troof sheeting on 76 x 50mm purins. Cellings are final dating and an against that stabs 20cdo of Practice for Design of Timber Trusses. The manufacture of trusses shall supply a written quarantee that the trusses are design the Trusted and rested, to support the roof coverings specified. The quartiles for full detais. All trusses are than the trusted and rested, to support the roof coverings specified. The quartiles for the deal dimed and for 10(ten) years .         Carried to Collection       R <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
Medium Administration Block         BiLL No. 6         CARPENTRY AND JOINERY         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Particle board:         Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.         Joinery:         Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.         Descriptions of hardwood joinery shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.         Descriptions and the deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.         PeterABRICATED ROOF TRUSSES, ETC.         Plate nailed timber roof truss construction:         The following is applicable in respect of roof trusses: Trusses are a maximum 1200mm centres Roof covering is Klip-lok troof sheeting on 76 x 50mm purins. Cellings are final dating and an against that stabs 20cdo of Practice for Design of Timber Trusses. The manufacture of trusses shall supply a written quarantee that the trusses are design the Trusted and rested, to support the roof coverings specified. The quartiles for full detais. All trusses are than the trusted and rested, to support the roof coverings specified. The quartiles for the deal dimed and for 10(ten) years .         Carried to Collection       R <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
BillL No. 6         CARPENTRY AND JOINERY         PREABLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Particle board         Particle board shall comply with the following specifications: a) SABS 1300 Particle board: interior type.         Joinery         Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.         Descriptions of hardwood joinery shall be deemed to include pelieting of both holes.         Fling:         Lems described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.         Decorative laminate finish.         PREFABRICATED ROOF TRUSSES, ETC.         Plate nailed timber roof truss construction:         The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is Nilp-lok roof sheeting on 76 x 50mm purlins. Ceilings are first of arwings at the end of lase bills of quantities for full deails. All trusses are fabricated in a flatory by geneliatis approved by the Architect. All trusses shall be designed by a Registered Proteosional Engineer(in accordance with the draft SAS Code of Practice for Design of Timber Trusses). The manufactured and covering is shall supply a witten quarantee that the trusses shall supply a witten quarantee that the trusses shall supply a witten quarantee that the trusses are designed. manufactured.and certex of towering saschifted. The quarantee shall be valid for 10(ten) years .         Carried to Collection						
CARPENTRY AND JOINERY         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         SUPPLEMENTARY PREAMBLES         Particle board         Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.         Joinery:         Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.         Descriptions of hardwood joinery shall be deemed to include frames, transoms, mullions, rails, etc.         Descriptions of soft holes.         Fixing:         Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.         Descriptions of traves construction:         PREFABRICATED ROOF TRUSSES, ETC,         Plate nailed timber roof truss construction:         The following is applicable in respect of roof trusses: Trusses are maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 78 x 50mm purlins. Cellings are form sheeting on 38 x 50mm purlins. Cellings are form sheeting on 38 x 50mm purlins. Cellings are form sheeting on 38 x 50mm purlins. Cellings are form sheeting on 38 x 50mm purlins. Cellings are form sheeting on 38 x 50mm purlins. Cellings are beness are designed. manufactured, and reacted. To support the roof covering specified. The quartites of roll detais. All trusses are fabricated in a factory by specialist approved by the Architect. All trusses are labeled on the routed, and reacted, to support the roof covering specified. The quartites shall b	Medium Administration Block					
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Bill No. 6 Carpentry And Joinery	Carried to Collection			R		
Carpentry And Joinery	Section No. 4					
	Bill No. 6					
124						
	124					

		Unit	Quantity	Rate	Amount	100
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped ends approximately 297m2 (Administration Block) on plan including trusses, hipped ends, jack rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION					
	Sawn softwood :					
2	114 x 38mm Wall plates.	m	134			
3	50 x 228mm support beam	m	50			
	ROOF SUNDRIES					
	Sundries:					
4	Two coats creosote on sawn timbers.	m²	52			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre- cement:					
5	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	86			
	JOINERY SUNDRIES					
	Wrought Meranti					
6	450mm wide slatted seats, etc of 76 x 38mm thick (50mm centres) screwed under and including steel 50 x 50 x 3mm L section steel holed to concrete fixed with bolts	m²	10			
	SEMI SOLID CORE FLUSH DOORS					
	44 semi-solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames:					
7	40mm Door 813 x 2032mm high.	No	11			
	Carried to Collection Section No. 4			R		
	Bill No. 6					
	Carpentry And Joinery					
	125					

		I	Amount	1
BILL NO. 6				
CARPENTRY AND JOINE	ERY			
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Section No. 4	Carried To Section Summary	R		
Bill No. 6				
Carpentry And Joinery				
	126			

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4 Modium Administration Block					
	Medium Administration Block BILL NO. 7					
	<u>CEILINGS PARTITIONS AND ACCESS FLOORING</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	297			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	482			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec or equal approved fibre-cement					
	boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres.	m²	297			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	2			
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 7					
	Ceilings Partitions And Access Flooring					
	127					166

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	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	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.					
	HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC					
	<u>"Solid" or equal approved:</u>					
1	150mm 8052-150 Brass flush bolt with keep fixed to metal.	No	2			
2	150mm 8052-150 Brass flush bolt with keep let into concretet.	No	2			
3	CZ 80941WC indicator bolt with keep fixed to metal.	No	2			
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
4	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	4			
	LOCKS					
	Solid or equal approved:					
5	"Code 630" padlock.	No	2			
	'Solid" or equal approved					
6	CZ682-24-95SC"Gower" two lever lockset.	No	11			
	DOOR CLOSERS					
	<u>"Yale" or equal approved</u>					
7	Y202RC Door closer with cover fixed to metal	No	2			
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	Section No. 4 Bill No. 8					
	Ironmongery					
	128					
						4.07

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		Unit	Quantity	Rate	Amount	1
	BATHROOM FITTINGS					
	Kimberley-Clark or equal approved:					
8	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	2			
9	Vandal proof lockable toilet roll holder plugged.	No	2			
	SUNDRIES					
	Solid or equal approved:					
10	38mm Diameter rubber door stop plugged.	No	15			
	MATS					
	Squeegee or equal approved					
11	1500 x 800 x 17mm Door mat laid loose in mat surround					
	fixed with 25 x 25mm aluminium angle plugged to concrete (Provisional).	NIa				
		No	2			
	VERTICAL AND ROLLER BLINDS					
	<u>127mm wide non-fade material vertical blinds as per</u> <u>"Windowvert" or similar approved ,fitted as per</u>					
	manufacturere's instructions					
12	To fit window 2 044 x 954mm high.	No	1			
13	To fit window 1 511 x 1 245mm high.	No	14			
14	To fit window 1 022 x 1 224mm high.	No	3			
15	To fit window 533 x 949mm high.	No	5			
	PINNING BOARDS, WRITING BOARDS,					
	PROJECTION SCREENS, ETC					
	Vitrex or equal approved:					
16	Pinning board 2400 x 1200mm high plugged.	No	1			
17	Pinning board 3000 x 1200mm high plugged.	No	4			
	STEEL LOCKERS					
	<u>Greenfield steel lockers with standard baked enamel</u> <u>finish</u>					
18	Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.	No	4			
	with five shelves bolied to blickwork.	No	4			
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	Bill No. 8					
	Ironmongery					
	129					

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		129		
	Carried To Section Summary	R		
Section No. 4	Camed to Section Summary	K K		
Bill No. 8 Ironmongery				
	130			

		Unit	Quantity	Rate	Mokha Amount	iri 55
		Onic	Quantity	Ruio	/ inouni	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 9					
	<u>METALWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	Mild steel handrails and balustrades fixed to base plates constructed of two number 6mm steel flat bar cut to profile mounted to wall with 6mm thick steel fixing plate welded to two steel flat bars with 4mm fillet welds chemical anchors (bolts included), 12mm diameter mild steel round spaced at 150mm centres, predrilled openning 3no in each upright, top rail to be 30mm thick x 100mm wide steel					
1	Balustrades including steel handrails approximately 1000mm high fixed to concrete.	m	16			
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
2	Ditto, double gate and frame 1613 x 2032mm high overall as per Architectural drawing	No	2			
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:					
3	Frame for door 813 x 2032mm high.	No	10			
	1,2mm Rebated frames suitable for one brick walls:					
4	Frame for door 813 x 2032mm high.	No	1			
	Carried to Collection Section No. 4			R		<u> </u>
	Section No. 4 Bill No. 9					
	Metalwork					
	131					

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
5	Window type SWE37S/SWE37S, size 2044 x 954mm high.	No	1			
6	Window type SWE418, size 1511 x 1245mm high.	No	14			
7	Window type SW37, size 1022 x 1224mm high.	No	3			
8	Window type SWE31S, size 533 x 949mm high.	No	5			
9	Composite window type NG9/D4HS, size 1511 x 1623mm high.	No	1			
	STEEL STRONGROOM DOORS, VENTILATORS, ETC.					
	<u>Strongroom doors etc. suitable for 220mm walls</u>					
10	Double ended strongroom ventilator.	No	1			
11	Record room door and frame 1030 x 2010mm high overall with a mass of 324kg, including one 7lever security lock and wall mounted door stop	No	1			
	ALUMINIUM DOORS AND WINDOWS, ETC					
	Purpose made natural anodised aluminium windows glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete					
12	Window 1525 x 1300mm high overall in clear panes.	No	3			
13	Window 2400 x 1300mm high overall in clear panes.	No	1			
	Purpose made natural anodised aluminium doors glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete					
14	Double door size 1575 x 2125mm high in four panes with each leaf side hung and one pair type TS550 satin chromium plated double action floor spring hinges with standard open feature, including adjustable top centre and box let into concrete, two double cylinder lockset, and two pairs of AL5512-300BB ABL aluminium pull handles fixing back to back.	No	2			
	SECURITY BARRIERS					
15	Trellidoor 1600 x 2125mm high plugged.	No	2			
	Carried to Collection			R		
	Section No. 4 Bill No. 9					
	Metalwork					
	132					

Mokhari SS Unit Quantity Amount Rate STEEL LOUVRES, ETC Purpose made louvres: Triangular shaped (on elevation) residential section 16 louvred ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louvre blades fixed to surround and covered at back with No. 256 galvanised mesh mosquito gauze, fixed with and including 3 x 20mm steel flat section cover strips screwed No 2 Ditto but approximately 3700 x 1000mm high overall No 2 17 Carried to Collection R Section No. 4 Bill No. 9 Metalwork

Amount <u>BILL NO. 9</u> **METALWORK COLLECTION** Page No Brought Forward from Page 131 132 133 Carried To Section Summary R Section No. 4 Bill No. 9 Metalwork 134

					Mokhari SS	5
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 10					
	PLASTERING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SCREEDS					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive ceramic tiles:					
1	30mm Thick on floors and landings.	m²	297			
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
2	30mm Thick on floors and landings.	m²	4			
	INTERNAL PLASTER					
	Cement plaster on brickwork:					
3	On walls.	m²	658			
4	On narrow widths.	m²	6			
5	On concrete soffit.	m²	6			
Ŭ			0			
~	CORNER PROTECTORS, DIVIDING STRIPS, ETC					
6	30 x 3mm Flat section brass dividing strips between different floor finishes.	m	7			
						_
	Carried To Section Summary			R		_
	Section No. 4					_
	Bill No. 10					
	Plastering 135					
1			I		н Т	

					Mokhari SS
		Unit	Quantity	Rate	Amount
	SECTION NO. 4				
	Medium Administration Block				
	<u>BILL NO. 11</u> TILING				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371				
	WALL TILING				
	200 x 200 x 10mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere):				
1	On walls in isolated panels, splashbacks, etc.	m²	32		
2	On narrow widths.	m²	1		
	FLOOR TILING				
	<u>300 x 300 x 11.5mm ceramic floor tiles (Prime Cost</u>				
	amount R250.00/m2 excluding vat) fixed with				
	adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound				
3	On floors and landings.	m²	297		
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	211		
	Corried To Contine Output			-	
	Carried To Section Summary Section No. 4			R	
	Bill No. 11				
	Tiling				
	136				

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	1
SECTION NO. 4					
Medium Administration Block					
BILL NO. 12					
PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.					
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.					
Copper pipes:					
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.					
Fixing of pipes					
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level					
Carried to Collection Section No. 4 Bill No. 12			R		
Plumbing And Drainage					
137					

Unit     Quantity     Rate     Amount       Reducing fittings:     Image: Comparison of the appendence of the second of the second of the contractor wish to use of the fittings and bushes or roducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters on the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.     Image: Comparison of the comparison of the understanding that no claim in this regard will be entertained.       Wire gratings:     Descriptions of septic tanks shall be deemed to include excavation, bedding and joining, concrete base slabs, plotting to drans and backfilling, concrete base slabs, guiley tops, colerance of the tops, catchpits, inspection of hambers, etc shall be finished smooth with plaster.     Exceeding 60m concrete stimwater channels, cover slabs, inspection drance with manufacturers' instructions with plaster.     Image: manufacturers' instructions exit plotting the quantity surveyor thereof plot to backfilling.     Image: manufacturers' matter drance with manufacturers' instructions exit plotting and plotting drance with manufacturers' instructions exit plotting and plotting drance with drause 3, 5, 5, 5, 5, 7 and 7 of SAB.     Image: manufacturers' instructions exit plotting and plotting drancordane with clauses 3, 5, 5, 5, 5, 7 and 7 of SAB.					Mokha	ri SS
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 50mm 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 50mm all sizes are given and no claim for extra bushes, reducers, text will be entertained.         Wire gratings:       Descriptions of gutter outlets etc shall be deemed to include wice balloon gratings.         Septic tanks:       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.         Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs, guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs, guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs, guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs, guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs, guiley tops, cleaning eye tops, catchpits, inspection eye marker slabs, guiley tops, cleaning eye tops, catchpits, inspection eye and backfilling,         Vock and 'hard nock' shall be as defined in 'Earthworks'.         Laving, backfilling, bedding, etc of pipes:         Pipes shall be laid an bedded and trenches shall be claase o	1	Unit	Quantity	Rate	Amount	
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'Earthworks'.         Laying, backfilling, bedding, etc of pipes:         Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.         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 clause 3, 5.5, 5.6, 5.7 and 7 of SAB.         Flush pans:         Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.         Carried to Collection         R         Bill No. 12         Plumbing And Drainage	the Contractor has timeously notified the quantity					
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Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.       R         Carried to Collection       R         Section No. 4       Bill No. 12         Plumbing And Drainage       Image	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 clause 3, 5.5,					
'S' traps as necessary.  Carried to Collection  R  R  Plumbing And Drainage	Flush pans:					
Section No. 4 Bill No. 12 Plumbing And Drainage						
	Section No. 4			R		
138						
	138					

Unit Amount Quantity Rate Stainless steel basins, sinks, wash troughs, urinals, etc: Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable. Waste unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. **RAINWATER DISPOSAL** Approved .6mm galvanised sheet iron with "chromadek" finish ,in: 100 x 100mm Eaves gutters 79 1 m 2 Extra over eaves gutter for angle/corner. No 12 6 3 Extra over eaves gutter for stopped end No 4 Extra over eaves gutter for outlet for 75mm pipe. No 12 5 75mm Diameter rainwater pipes. m 48 6 Extra over rainwater pipe for bend. No 12 7 Extra over rainwater pipe for shoe. 12 No SANITARY FITTINGS 'Citimetal' stainless steel or equal approved: 8 Series single end bowl overlay sink, size 1200 x 535mm fitted to top of cabinet. No 1 "Vaal" or equal approved 510 x 405mm "Hibiscus" (code 7050) white vitreous 9 china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0) No 3 White vitreous china "Daisy" semi-close coupled 10 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat 2 No WASTE UNIONS ETC 'Cobra Watertech" or equal approved 38mm "Cobra 316" unslotted waste and plug with chain No 11 1 **TRAPS ETC** "Marley' or equal approved 12 40mm Flexi butyl rubber trap with reseal "P" trap No 1 Carried to Collection R Section No. 4 Bill No. 12 Plumbing And Drainage

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	"Cobra Watertech" or equal approved					
13	"Cobra Ref. 365/40" CP Bottle trap.	No	2			
	TAPS, VALVES, ETC					
	'Cobra Watertech' or equal approved					
14	"Cobra Rf. 107EC-15" Bib tap plugged	No	3			
15	15mm Gate valves plugged	No	6			
16	"Cobra Ref. 232/350' Angle regulating valve	No	2			
17	"Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	1			
	SANITARY PLUMBING					
	uPVC pipes:					
18	50mm Pipes	m	60			
19	110m Pipes.	m	55			
20	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	25			
21	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	25			
	Extra over uPVC pipes for fittings:					
22	50mm Bend.	No	10			
23	100mm Bend.	No	8			
24	110mm Junction.	No	6			
25	50mm Junction.	No	12			
26	110mm Reducing junction.	No	6			
27	110mm Double junction.	No	5			
28	110mm Pan connector	No	2			
29	110mm "G1 Two-way " vent valve	No	2			
	Sundries:					
30	Testing waste pipe system.	Item				
	WATER SUPPLIES					
	Class 9 uPVC pressure pipes:					
31	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	60			
	Carried to Collection			R		
	Section No. 4					
	Bill No. 12 Plumbing And Drainage					
	140					
						470

I		Unit	Quantity	Rate	мокпа III Amount	11 55
	Extra over uPVC pressure pipes for solvent welded pressure fittings:					
32	63mm Elbow	No	6			
33	63mm Tee	No	4			
34	63mm Reducer.	No	4			
	Class o copper pipes:					
35	15mm Pipes	m	30			
36	22mm Pipes.	m	40			
	Extra over class o copper pipes for capillary fittings:					
37	15mm Fittings.	No	20			
38	22mm Fittings.	No	15			
	Copper overflow and service pipes:					
39	15mm Service pipe 300mm girth.	No	1			
	Sundries:					
40	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1			
41	'ZIP Hydroboil code 3800' 25 litre white powder coated water boiler as manufactured by Franke Kitchen Systems, plugged and screwed to wall.	No	1			
	ELECTRICAL WATER HEATERS					
	"Kwikot" or equal approved					
42	150 litre Horizontally floor mounted electric water heater	No	1			
	Testing:					
43	Testing water pipe system.	Item				
	FIRE APPLIANCES ETC.					
	'Chubb' or equal approved:					
44	'Everyway' hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket.	No	1			
45	9kg Dry chemical fire extinguisher.	No	2			
45	sky bry chemical file extinguisher.	INU	Z			
	Carried to Collection			-		
	Section No. 4			R		
	Bill No. 12					
	Plumbing And Drainage					
	141					100

Mokhari SS Unit Quantity Rate Amount **RAINWATER HARVESTING Rainwater harvesting** Allow a sum of R15 000.00/each (Fifteen Thousand 46 Rands) for provision of 5000I Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details No 2 Carried to Collection R Section No. 4 Bill No. 12 Plumbing And Drainage 142

			Mokha	ri SS
			Amount	
<b>BILL NO. 12</b>				
PLUMBING AND DRAIN	AGE			
COLLECTION				
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Section No. 4	· · · · · · · · · · · · · · · · · · ·			
Bill No. 12				
Plumbing And Drainage				
	143			

					Mokhari	SS
I		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 13 GLAZING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GLAZING TO STEEL WITH PUTTY					
	5mm Clear float glass:					
1	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	43			
'			43			
	5mm Rough cast glass:					
2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	M²	2			
	TOPS, SHELVES, DOORS, MIRRORS, ETC.					
	6mm Silvered float glass copper backed mirrors with					
	polished edges fixed with double sided adhesive tape:					
3	Mirror 450 x 600 mm high.	No	3			
-	Ğ					
	Corriad To Contian Summer			<b>_</b>		
	Carried To Section Summary Section No. 4			R		
	Bill No. 13					
	Glazing					
	144					

		Linit	Quantity	Dete	Mokhari s	55
		Unit	Quantity	Rate	Amount	
	SECTION NO. 4					
	Medium Administration Block					
	BILL NO. 14					
	PAINTWORK					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	ON FLOATED PLASTER					
	Prepare , etc as specified and apply two coats of super acrylic paint:					
1	On interior walls.	m²	658			
	ON FIBRE-CEMENT, ETC.					
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:					
2	On ceilings and cornices.	m²	297			
3	On fascias and barge boards.	m	172			
	ON METAL					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	16			
5	On windows with burglar bars (both sides measured).	m²	74			
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	M²	21			
	Inside eaves gutter					
7	Inside eaves gutter with waterproofing paint	m²	60			
	ON WOOD, WOOD BOARD					
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:					
8	General surfaces of doors (interior).	m²	36			
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:					
9	On open slatted seating.	m²	9			
10	On laminated beam.	m²	3			
	Carried To Section Summary			R		
	Section No. 4					
	Bill No. 14					
	Paintwork					
	145					

Amount

			Amount
	SECTION NO. 4		
	Medium Administration Block		
	SECTION SUMMARY		
Bill No.		Page	
1	FOUNDATIONS	114	
2	CONCRETE, FORMWORK AND REINFORCEMENT	117	
3	MASONRY	121	
4	WATERPROOFING	122	
5	ROOF COVERINGS	123	
6	CARPENTRY AND JOINERY	126	
7	CEILINGS PARTITIONS AND ACCESS FLOORING	127	
8	IRONMONGERY	130	
9	METALWORK	134	
10	PLASTERING	135	
11	TILING	136	
12	PLUMBING AND DRAINAGE	143	
13	GLAZING	144	
14	PAINTWORK	145	
	Carried to Final Summary	R	
	Section No. 4 SECTION SUMMARY		
	146		

# **SECTION NO. 5**

## 4 x 4 Waterborne Toilet

			- ·	_	Mokhari SS	
		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 5</u>					
	4 x 4 Waterborne Toilet					
	<u>BILL NO. 1</u> FOUNDATIONS					
	TOURDATIONS					
	PREAMBLES					
	For preambles see " Specification of materials and methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	24			
	REMOVAL OF TREES, ETC.					
	Taking out and removing, grubbing up roots and filling in holes:					
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1			
	EXCAVATION, FILLING, ETC OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep:					
3	Trenches.	m³	28			
4	Pit.	m³	4			
4			4			
	Extra over trench and hole excavations in earth for excavation:					
5	Soft rock.	m³	3			
6	Hard rock.	m³	1			
	Risk of collapse of excavations:					
7	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	23			
			23			
	Keeping excavations free of water:					
8	Keeping excavations free of all water other than subterranean water.	Item				
	Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:					
9	Backfilling to trenches, holes, etc.	m³	4			
_	-					
10	Under floors, steps, pavings, etc.	m³	5			_
	Carried to Collection			R		-
	Section No. 5			ĸ		-
	Bill No. 1					
	Foundations					
	148					

					Mokhari SS
		Unit	Quantity	Rate	Amount
	Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):				
11	Under floors, steps, pavings, etc.	m³	11		
	Cart Away				
	Extra over excavation for cart away:				
12	Surplus material from excavations on site to a dumping site be located by the contractor	m³	14		
	Coarse river sand filling supplied by the Contractor:				
13	Under floors etc.	m³	6		
	COMPACTION				
	Compaction of surfaces:				
14	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 90%.Mod AASHTO density.	m²	26		
	Prescribed density tests on filling:				
15	Modified AASHTO Density test.	No	8		
	SOIL POISONING				
	Soil insecticide:				
16	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	26		
17	To bottoms and sides of trenches etc.	m²	38		
	Carried to Collection Section No. 5 Bill No. 1			R	
	Foundations				
	149				100

1		1	Amount	
BILL NO. 1 FOUNDATIONS COLLECTION		Page No		
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	Carried To Section Summary	R		
Section No. 5 Bill No. 1 Foundations	470			
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**SECTION NO. 5** 4 x 4 Waterborne Toilet **BILL NO. 2** CONCRETE, FORMWORK AND REINFORCEMENT PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" **UNREINFORCED CONCRETE** 15Mpa/19mm Concrete Aprons cast in panels. 2 m³ Ramps. m³ 1 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc 29 m **REINFORCED CONCRETE** 25 MPa/19mm Concrete: Surface beds cast in panels on waterproofing. m³ 2 7 Footings. m³ Slabs m³ 2 **TEST BLOCKS** Test blocks: Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional). Sets 5 FINISHING TOP SURFACE OF CONCRETE Paving to falls. 17 m² Ramps to falls. 2 m² ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP Work Group No 111) **Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. m 6 Formwork to soffits of slabs m² 9 Carried to Collection R Section No. 5 Bill No. 2

1

2

3

4

5

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11

Unit

Quantity

Rate

Amount

Concrete, Formwork And Reinforcement

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					Mokha	ri SS
1		Unit	Quantity	Rate	Amount	I
	MOVEMENT JOINTS ETC					
	Two layers of .5mm galvanised mild steel slip joints					
	between horizontal concrete and brick surfaces					
	including cement mortar bed:		_			
12	Not exceeding 300mm wide.	m	6			
	Expansion joints with bitumen impregnated					
	softboard between vertical concrete and brick surfaces:					
4.0						
13	12mm Joints not exceeding 300mm high.	m	6			
	Dividing Strips ,etc					
14	6 x 38mm Angle iron step guard cast into concrete with					
	3x 6mm anchors	m	2			
	REINFORCEMENT(PROVISIONAL)					
	Fabric reinforcement:					
15	Type 193 fabric reinforcement in concrete surface beds,					
	slabs, etc.	m²	26			
	Mild steel reinforcement to structural concrete work:					
16	10mm Diameter bars.	Tonnes	1			
		1011103	•			
	High tensile steel reinforcement to structural concrete work:					
17	20mm Diameter bars.	Tonnes	1			
17		Tonnes	1			
18	16mm Diameter bars.	Tonnes	1			
						<u> </u>
	Carried to Collection			R		
	Section No. 5					
	Bill No. 2					
	Concrete, Formwork And Reinforcement					
	152					

		Amount	
BILL NO. 2			
CONCRETE, FORMWORK AND REINFORCEMENT			
COLLECTION			
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Section No. 5			
Bill No. 2 Concrete, Formwork And Reinforcement			
153			

					Mokha	ari SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	4 x 4 Waterborne Toilet					
	<u>BILL NO. 3</u> MASONRY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	BRICKWORK					
	Sizes in descriptions:					
	Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.					
	Face bricks:					
	Bricks shall be ordered timeously to obtain uniformity in size and colour.					
	Pointing:					
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.					
	SAMPLES					
	Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site.					
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
1	Half brick walls	m²	11			
2	One brick walls	m²	11			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
3	Half brick walls	m²	18			
4	Half brick walls in beam filling.	m²	2			
5	One brick walls	m²	69			
						+
	Carried to Collection			R		
	Section No. 5					
	Bill No. 3 Masonry					
	Masonry 154					
I			I	1	П	I

			<b>o</b>	5	Mokha	riss
		Unit	Quantity	Rate	Amount	
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
6	75mm Wide reinforcement built in horizontally.	m	64			
7	150mm Wide reinforcement built in horizontally.	m	194			
	Turning pieces:					
8	110mm Wide turning piece to lintels etc.	m	5			
9	220mm Wide turning piece to lintels etc.	m	2			
	Galvanised wire ties etc:					
10	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	24			
	Galvanised hoop iron cramps, ties, etc:					
11	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	24			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
12	Extra over brickwork for face brickwork.	m²	79			
13	Extra over brickwork for face brickwork in foundations (Provisional).	m²	6			
14	Extra over brickwork for face brickwork to piers.	m²	2			
15	Half brick in facings in beamfilling	m²	5			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
16	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	2			
17	230mm Wide sill set sloping and slightly projecting.	m	5			
18	Coping on top of one brick wall pointed on exposed	m	16			
	faces Carried to Collection Section No. 5 Bill No. 3			R		
	Masonry 155					
I	100		I		1	104

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		Unit	Quantity	Rate	Amount	
19	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc: 12 x 152mm Wide sills set flat and slightly projecting.	m	4			
				_		
	Carried to Collection Section No. 5			R		
	Bill No. 3					
	Masonry 156					

Amount <u>BILL NO. 3</u> MASONRY **COLLECTION** Page No Brought Forward from Page 154 155 156 Carried To Section Summary R Section No. 5 Bill No. 3 Masonry 157

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	I
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
1	In walls.	m²	10			
	One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	16			
	JOINT SEALANTS ETC					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	38			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	48			
	Carried To Section Summary Section No. 5 Bill No. 4 Waterproofing 158			R		407

					Mokha	ri SS
I	I	Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	BILL NO. 5					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	General					
	PROFILED METAL SHEETING AND ACCESSORIES					
	0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "Globalcoat" finish one side(colour Traffic Green), fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	20			
	0.58mm galvanised sheet iron, with "Globalcoat" one side in:					
2	Standard type FK3 ridge or hip flashing	m	8			
	Carried To Section Summary Section No. 5 Bill No. 5 Roof Coverings			R		
	159					

				Mokha	ari SS
1	Unit	Quantity	Rate	Amount	I
SECTION NO. 5					
<u>4 x 4 Waterborne Toilet</u>					
BILL NO. 6					
CARPENTRY AND JOINERY					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Particle board:					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.					
Joinery:					
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.					
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.					
Fixing:					
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.					
Decorative laminate finish:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.					
PREFABRICATED ROOF TRUSSES, ETC.					
Plate nailed timber roof truss construction:					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .					
Carried to Collection Section No. 5			R		
Section No. 5 Bill No. 6					
Carpentry And Joinery					
160					
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		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two gable ends approximately 16m2 on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION					
	Sawn softwood :					
2	114 x 38mm Wall plates.	m	4			
3	114 x 38mm rafters exceeding 2.4m and not exceeding 3.9m.	m	5			
4	50 x 76mm purlins.	m	16			
	ROOF SUNDRIES					
	Sundries:					
5	Two coats creosote on sawn timbers.	M²	6			
	EAVES, VERGES, ETC					
	Everite FC77 or equal approved pressed fibre- cement:					
6	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	20			
	Wrought meranti doors:					
	Wrought meranti doors hung to steel frames:					
7	44mm Framed batten door 813 x 2032mm high of 44 x 150m top rail and stiles ,16 x 150mm middle ledge and braces and 22 x 220mm bottom rail, filled in with 22mmV-jointed one side boarding and covered on other side with 4mm plywood with veneer to match door, let into and including rebates all round.	No	2			
	Semi-solid flush doors					
8	40mm semi-solid flush doors with 3.2mm standard hardboard covering on both sides hung to steel frames:	No	4			
	Carried to Collection Section No. 5			R		
	Bill No. 6					
	Carpentry And Joinery					
	161					

		1	Amount	
BILL NO. 6				
CARPENTRY AND JOIN	ERY			
COLLECTION				
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Bill No. 6				
Carpentry And Joinery	162			
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					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	4 x 4 Waterborne Toilet					
	BILL NO. 7 CEILINGS PARTITIONS AND ACCESS FLOORING					
	CLILINGS FARTHONS AND ACCESS TEOORING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	16			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	16			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec or equal approved fibre-cement					
	boards with H-type steel cover strips over joints:					
3	Ceilings including 38 x 38mm sawn softwood brandering					
	at 400mm centres.	m²	16			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	1			
	Carried To Section Summary			R		
	Section No. 5			IX.		
	Bill No. 7					
	Ceilings Partitions And Access Flooring					
	163					

					Mokha	ri SS
1		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 5</u>					
	<u>4 x 4 Waterborne Toilet</u> BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	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.					
	CATCHES, CABIN HOOKS, ETC					
	Solid or equal approved:					
1	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	2			
	LOCKS					
	Solid or equal approved:					
2	"Code 630" padlock.	No	2			
	'Solid" or equal approved					
3	CZ682-24-95SC"Gower" two lever lockset.	No	4			
4	CZ6822461 "Gower" Four lever lockset.	No	2			
	SUNDRIES					
	Solid or equal approved:					
5	38mm Diameter rubber door stop plugged.	No	6			
			Ŭ			
	Lockable toilet roll holder	Na	4			
6	Lockable toilet roll holder plugged	No	4			
					<u> </u>	<u> </u>
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 8 Ironmongery					
	164					
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					Mokha	ari SS
I		Unit	Quantity	Rate	Amount	I
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	BILL NO. 9					
	<u>METALWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	WELDED SCREENS, GATES, ETC.					
	Gates to external doors					
1	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	No	2			
	DRESSED STEEL DOOD EDAMES					
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:	NI-				
2	Frame for door 813 x 2032mm high.	No	4			
	1,2mm Rebated frames suitable for one brick walls:					
3	Frame for door 813 x 2032mm high	No	2			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
4	Window type NE1, 533 x 654mm high	No	4			
	Carried to Collection			-		
	Section No. 5			R		<u> </u>
	Bill No. 9					
	Metalwork					
	165					

				Mokhar	ri SS
	Unit	Quantity	Rate	Amount	I
STEEL LOUVRES,ETC         Dupce made louvres         Triangular shaped (on elevation) residential section louvred ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louvre blades fixed to surround and covered at back with No. 256 galvanised mesh mosquito gauze, fixed with and including 3 x 20mm steel flat section cover strips screwed	No	Quantity	Rate		ri SS
Carried to Collection Section No. 5 Bill No. 9 Metalwork			R		
166					

1		1	Amount	I
BILL NO. 9 METALWORK COLLECTION		Page No		
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Section No. 5 Bill No. 9				
Metalwork	407			
	167			

					Mokhar	i SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	BILL NO. 10					
	PLASTERING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	<u>SCREEDS</u>					
	Screeds on concrete:					
	Screeds of wood floated on concrete to receive ceramic tiles:					
1	30mm Thick on floors to receive ceramic tiling.	m²	16			
	INTERNAL PLASTER					
	Cement plaster steel trowelled, on brickwork					
2	On walls	m²	92			
3	On narrow widths	m²	1			
-						
	Carried To Section Summary			R		
	Section No. 5					
	Bill No. 10					
	Plastering 168					
	100					207

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	I
	SECTION NO. 5					
	<u>4 x 4 Waterborne Toilet</u>					
	<u>BILL NO. 11</u>					
	TILING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	WALL TILING					
	200 x 200 x 5mm White glazed ceramic tiles on brickwork including cement plaster backing					
1	On walls	m²	2			
	FLOOR TILING					
	300 x 300 x 11.5mm glazed floor tiles (Prime Cost amount R250.00/m2 delivered excluding vat) fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing					
_	<u>compound</u>		10			
2	On floors and landings.	m²	16			
3	Skirting formed of ceramic tile cut to 300 x 75mm high	m	16			
	Carried To Section Summary Section No. 5 Bill No. 11 Tiling 169			R		

				Mokha	ri SS
1	Unit	Quantity	Rate	Amount	1
SECTION NO. 5					
4 x 4 Waterborne Toilet					
BILL NO. 12 PLUMBING AND DRAINAGE					
PLOMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.					
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.					
Copper pipes:					
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.					
Fixing of pipes					
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level					
Carried to Collection Section No. 5			R		
Bill No. 12					
Plumbing And Drainage					
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				Mokha	iri SS
1	Unit	Quantity	Rate	Amount	1
Reducing fittings:					
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.					
Wire gratings:					
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.					
Septic tanks:					
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.					
Exposed concrete surfaces:					
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.					
Excavations:					
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
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 clause 3, 5.5, 5.6, 5.7 and 7 of SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection Section No. 5 Bill No. 12			R		
Plumbing And Drainage					
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Unit Quantity Amount Rate Stainless steel basins, sinks, wash troughs, urinals, etc: Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable. Waste unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. **RAINWATER DISPOSAL** Approved .6mm galvanised sheet iron with "chromadek" finish ,in: 100 x 100mm Eaves gutters 18 1 m 2 Extra over eaves gutter for angle/corner. No 4 Extra over eaves gutter for outlet for 75mm pipe. 3 No 4 4 75mm Diameter rainwater pipes. m 16 5 Extra over rainwater pipe for bend. No 4 6 Extra over rainwater pipe for shoe. No 4 SANITARY FITTINGS "Vaal" or equal approved 510 x 405mm "Hibiscus" (code 7050) white vitreous 7 china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0) No 4 White vitreous china "Daisy" semi-close coupled 8 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat No 4 WASTE UNIONS ETC 'Cobra Watertech" or equal approved 38mm "Cobra 316" unslotted waste and plug with chain 9 No 4 **TRAPS ETC** "Marley' or equal approved 40mm Flexi butyl rubber trap with reseal "P" trap No 4 10 "Cobra Watertech" or equal approved "Cobra Ref. 365/40" CP Bottle trap. 11 No Δ Carried to Collection R Section No. 5 Bill No. 12 Plumbing And Drainage 172

					Mokha	iri SS
		Unit	Quantity	Rate	Amount	
	TAPS, VALVES, ETC					
	'Cobra Watertech' or equal approved:					
12	"Cobra Rf. 107EC-15" Bib tap plugged	No	4			
13	15mm Gate valves plugged	No	8			
14	"Cobra Ref. 232/350' Angle regulating valve	No	4			
	SANITARY PLUMBING					
	uPVC pipes:					
15	50mm Pipes	m	30			
16	110m Pipes.	m	50			
17	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	20			
18	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	30			
	Extra over uPVC pipes for fittings:					
19	50mm Bend.	No	6			
20	100mm Bend.	No	4			
21	110mm Junction.	No	4			
22	50mm Junction.	No	4			
23	110mm Reducing junction.	No	4			
24	110mm Double junction.	No	4			
25	110mm Pan connector	No	4			
26	110mm "G1 Two-way " vent valve	No	4			
	Sundries:					
27	Testing waste pipe system.	Item				
	WATER SUPPLIES					
	Class 9 uPVC pressure pipes:					
28	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	30			
	Extra over uPVC pressure pipes for solvent welded pressure fittings:					
29	63mm Elbow	No	2			
30	63mm Tee	No	2			
	Carried to Collection			R		
	Section No. 5					
	Bill No. 12 Plumbing And Drainage					
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					Mokhai	ri SS
		Unit	Quantity	Rate	Amount	
31	63mm Reducer.	No	1			
	Class o copper pipes:					
32	15mm Pipes	m	20			
33	22mm Pipes.	m	15			
	Extra over class o copper pipes for capillary fittings:					
34	15mm Fittings.	No	10			
35	22mm Fittings.	No	10			
	Copper overflow and service pipes:					
36	15mm Service pipe 300mm girth.	No	1			
	Sundries:					
37	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1			
	FIRE APPLIANCES ETC.					
	<u>'Chubb':</u>					
38	9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges	No	2			
				-		
	Carried to Collection Section No. 5			R		
	Bill No. 12					
	Plumbing And Drainage					
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1			Amount	
BILL NO. 12				
PLUMBING AND DRAIN	AGE			
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Mokhari SS Unit Quantity Amount Rate **SECTION NO. 5** 4 x 4 Waterborne Toilet **BILL NO. 13 GLAZING** PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 **GLAZING TO STEEL WITH PUTTY** 5mm obscure glass: Panes not exceeding 0,1m2. m² 4 Carried To Section Summary R Section No. 5 Bill No. 13 Glazing

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		1.1	Quantity	Data	Mokhari SS
		Unit	Quantity	Rate	Amount
	SECTION NO. 5				
	<u>4 x 4 Waterborne Toilet</u>				
	BILL NO. 14				
	PAINTWORK				
	PREAMBLES				
	For preambles see "Specification of materials and methods to be used - PW371				
	ON INTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior use				
1	Walls	m²	91		
	ON FIBRE-CEMENT, ETC.				
	Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	On ceilings and cornices.	m²	16		
3	On fascias and barge boards.	m	16		
	<u>ON METAL</u>				
	Prepare, etc as specified and apply two coats of gloss enamel paint on :				
4	Door frames	m²	9		
5	On windows with burglar bars (both sides measured).	m²	4		
6	On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m²	7		
	Inside eaves gutter				
7	Inside eaves gutter with waterproofing paint	m²	6		
	ON WOOD, WOOD BOARD				
	Prepare,etc as specified and apply two coats of super acrylic Pva paint on:				
8	General surfaces of doors (interior).	m²	13		
	Prepare, etc as specified and apply two coats of polyurethane suede varnish:				
9	On general surfaces of doors.	m²	7		
10	On general surfaces of timber.	m²	2		
	Carried To Section Summary Section No. 5			R	
	Bill No. 14				
	Paintwork				
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			Amount
	SECTION NO. 5		
	<u>4 x 4 Waterborne Toilet</u>		
	SECTION SUMMARY		
Bill No.		Page	
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2	CONCRETE, FORMWORK AND REINFORCEMENT	153	
3	MASONRY	157	
4	WATERPROOFING	158	
5	ROOF COVERINGS	159	
6	CARPENTRY AND JOINERY	162	
7	CEILINGS PARTITIONS AND ACCESS FLOORING	163	
8	IRONMONGERY	164	
9	METALWORK	167	
10	PLASTERING	168	
11	TILING	169	
12	PLUMBING AND DRAINAGE	175	
13	GLAZING	176	
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# **SECTION NO. 6**

## **Guard House**

					Mokha	iri SS
I		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	<u>Guard House</u> BILL NO. 1					
	FOUNDATIONS					
	PREAMBLES For preambles see " Specification of materials and					
	methods to be used - PW371"					
	SITE CLEARANCE ETC					
	Site clearance:					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	11			
	REMOVAL OF TREES, ETC.					
	Taking out and removing, grubbing up roots and filling in holes:					
2	Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1			
	EXCAVATION, FILLING, ETC OTHER THAN BULK					
	Excavation in earth not exceeding 2m deep:					
3	Trenches.	m³	18			
	Extra over trench and hole excavations in earth for excavation:					
4	Soft rock.	m³	2			
5	Hard rock.	m³	1			
	Risk of collapse of excavations:					
6	Sides of trench and hole excavations not exceeding 1,5m deep.	m²	25			
	Keeping excavations free of water:					
7	Keeping excavations free of all water other than subterranean water.	Item				
	Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:					
8	Backfilling to trenches, holes, etc.	m³	9			
9	Under floors, steps, pavings, etc.	m³	3			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 1					
	Foundations 180					
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					Mokha	ri SS
I		Unit	Quantity	Rate	Amount	1
	Earth filling supplied by the Contractor and					
	compacted to 95% Mod AASHTO density):					
10	Under floors, steps, pavings, etc.	m³	3			
	<u>Cart Away</u>					
	Extra over excavation for cart away:					
11	Surplus material from excavations on site to a dumping site be located by the contractor	m³	4			
	Coarse river sand filling supplied by the Contractor:					
12	Under floors etc.	m³	1			
	COMPACTION					
	Compaction of surfaces:					
13	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 90%.Mod AASHTO density.	m²	9			
	Prescribed density tests on filling:					
14	Modified AASHTO Density test.	No	2			
	SOIL POISONING					
	Soil insecticide:					
15	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m²	9			
16	To bottoms and sides of trenches etc.	m²	70			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 1					
	Foundations 181					
I	101				1	220

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BILL NO. 1 FOUNDATIONS COLLECTION		Page No		
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Section No. 6 Bill No. 1 Foundations				
	182			

Quantity **SECTION NO. 6 Guard House BILL NO. 2** CONCRETE, FORMWORK AND REINFORCEMENT PREAMBLES For preambles see "Specification of materials and methods to be used - PW371" **UNREINFORCED CONCRETE** 15Mpa/19mm Concrete Aprons cast in panels. 1 m³ Ramps. m³ 1 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling etc 11 m Footings. m³ 4 **REINFORCED CONCRETE** 25MPa/19mm Concrete: Surface beds cast in panels on waterproofing. m³ 1 **TEST BLOCKS** Test blocks: Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional). Sets 2 m² 11 Paving to falls. FINISHING TOP SURFACE OF CONCRETE **ROUGH FORMWORK (DEGREE OF ACCURACY III) Rough Formwork to Sides:** Edges and reveals not exceeding 300mm high or wide. 11 m **MOVEMENT JOINTS ETC** Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed: Not exceeding 300mm wide. 5 m Carried to Collection R Section No. 6 Bill No. 2 Concrete, Formwork And Reinforcement

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1

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8

9

Unit

222

Mokhari SS

Amount

Rate

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	Unit	Quantity	Rate	Amount	
Expansion joints with bitumen impregnated					
softboard between vertical concrete and brick surfaces:					
12mm Joints not exceeding 300mm high.	m	4			
Dividing Strips ,etc					
6 x 38mm Angle iron step guard cast into concrete with 3x 6mm anchors	m	1			
REINFORCEMENT(PROVISIONAL)					
Fabric reinforcement:					
Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	9			
Carried to Collection			R		
Section No. 6					
Bill No. 2 Concrete, Formwork And Reinforcement					
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	l	Amount	1
BILL NO. 2			
CONCRETE, FORMWORK AND REINFORCEMENT			
COLLECTION			
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1		Unit	Quantity	Rate	Amount	1
	<u>SECTION NO. 6</u> Guard House					
	BILL NO. 3					
	MASONRY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371"					
	BRICKWORK					
	Sizes in descriptions:					
	Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.					
	Face bricks:					
	Bricks shall be ordered timeously to obtain uniformity in size and colour.					
	Pointing:					
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.					
	SAMPLES					
	Samples of all masonry building units, except those for walls described as 'load bearing', shall consist of a minimum of 6 units. Samples of building units to be used in walls described as 'load bearing' shall consist of 30 units from every 30 000 units delivered to site.					
	BRICKWORK IN FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
1	Half brick walls.	m²	3			
2	One brick walls	m²	11			
	BRICKWORK IN SUPERSTRUCTURE					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:					
3	Piers	m³	1			
4	Half brick walls	m²	9			
5	One brick walls	m²	34			
						<u> </u>
	Carried to Collection			R		<u> </u>
	Section No. 6 Bill No. 3					
	Masonry					
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		Unit	Quantity	Rate	Mokna Amount	11 3 3
	BRICKWORK SUNDRIES					
	Brickwork reinforcement:					
6	75mm Wide reinforcement built in horizontally.	m	36			
7	150mm Wide reinforcement built in horizontally.	m	149			
	Prestressed fabricated lintels:					
8	110 x 75mm Lintels in lengths not exceeding 3m.	m	1			
	Turning pieces:					
9	220mm Wide turning piece to lintels etc.	m	6			
	Galvanised wire ties etc:					
10	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	11			
	Galvanised hoop iron cramps, ties, etc:					
11	30 x 1,6mm Cramp 500mm long with one end fixed to					
	wood and other end built into brickwork.(Provisional)	No	11			
	FACE BRICKWORK					
	Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:					
12	Extra over brickwork for face brickwork.	m²	34			
13	Extra over brickwork for face brickwork in foundations (Provisional).	m²	5			
14	Extra over brickwork for face brickwork to piers.	m²	12			
15	Half brick in facings in beamfilling	m²	5			
	FACE BRICKWORK COPINGS, SILLS, ETC.					
	Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:					
16	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	7			
17	230mm Wide sill set sloping and slightly projecting.	m	5			
18	Coping on top of one brick wall pointed on exposed faces	m	1			
	Carried to Collection Section No. 6 Bill No. 3 Masonry			R		
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					Mokhai	ri SS
		Unit	Quantity	Rate	Amount	
19	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc: 12 x 152mm Wide sills set flat and slightly projecting.	m	5			
	Carried to Collection			R		
	Section No. 6 Bill No. 3 Masonry			Ň		
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Amount <u>BILL NO. 3</u> MASONRY **COLLECTION** Page No Brought Forward from Page 186 187 188 Carried To Section Summary R Section No. 6 Bill No. 3 Masonry 189

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		Unit	Quantity	Rate	Amount	I
	SECTION NO. 6					
	Guard House					
	BILL NO. 4					
	WATERPROOFING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	DAMPPROOFING OF WALLS AND FLOORS					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
1	In walls.	m²	6			
	One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:					
2	Under surface beds.	m²	9			
	JOINT SEALANTS ETC					
	Silicone sealing compound including backing cord,					
	bond breaker,primer,etc					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	2			
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	2			
				-		
	Carried To Section Summary			R		
	Section No. 6 Bill No. 4					
	Bill No. 4 Waterproofing					
	190					

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. C					
	SECTION NO. 6					
	Guard House					
	BILL NO. 5 ROOF COVERINGS					
	ROOF COVERINGS					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW 371					
	General					
	PROFILED METAL SHEETING AND ACCESSORIES					
	.5mm "Klip-lok light industrial" galvanised troughed sheet steel with "chromadek" finish one side,fixed to 76 x 50mm purlin complete under 5year quarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer					
1	Roof covering with pitch not exceeding 25 degrees.	m²	12			
	<u>.8mm galvanised sheet iron, with "chromadek" one side in:</u>					
2	Standard type FK3 ridge or hip flashing	m	10			
	Carried To Section Summary Section No. 6 Bill No. 5 Reaf Covariant			R		
	Roof Coverings 191					
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				Mokha	ari SS
1	Unit	Quantity	Rate	Amount	I
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Guard House					
BILL NO. 6					
CARPENTRY AND JOINERY					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Particle board:					
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.					
Joinery:					
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.					
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.					
Fixing:					
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.					
Decorative laminate finish:					
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.					
PREFABRICATED ROOF TRUSSES, ETC.					
Plate nailed timber roof truss construction:					
The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres Roof covering is 'Klip-lok' roof sheeting on 76 x 50mm purlins. Ceilings are 6mm sheeting on 38 x 50mm brandering .Refer to drawings at the end of these bills of quantities for full details. All trusses are fabricated in a factory by specialists approved by the Architect. All trusses shall be designed by a Registered Professional Engineer(in accordance with the draft SABS Code of Practice for Design of Timber Trusses). The manufacturer of trusses shall supply a written quarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The quarntee shall be valid for 10(ten) years .					
Carried to Collection Section No. 6			R		
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Carpentry And Joinery					
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		Unit	Quantity	Rate	Amount	
	Sawn softwood:					
1	Roof construction to double pitched roof with two hipped ends approximately 9m2 (Guard House) on plan including trusses, hipped ends, jack rafters, purlins, permanent bracing, etc (measured flat).	No	1			
	ROOF CONSTRUCTION					
	Sawn softwood :					
2	114 x 38mm Wall plates.	m	11			
	ROOF SUNDRIES					
	Sundries:					
3	Two coats creosote on sawn timbers.	m²	2			
	EAVES, VERGES, ETC					
	Everite FC77 pressed fibre-cement:					
4	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	16			
	JOINERY SUNDRIES					
	Wrought Meranti					
5	450mm wide slatted seats, etc of 76 x 38mm thick (50mm centres) screwed under and including steel 50 x 50 x 3mm L section steel holed to concrete fixed with bolts	m²	1			
	SEMI SOLID CORE FLUSH DOORS					
	44 semi-solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel					
6	<u>frames:</u> 40mm Door 813 x 2032mm high.	No	1			
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	Carried to Collection Section No. 6			R		
	Bill No. 6					
	Carpentry And Joinery					
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		1	Amount	
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					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 6 Guard House					
	BILL NO. 7					
	<u>CEILINGS PARTITIONS AND ACCESS FLOORING</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	INSULATION					
	Aerolite insulation:					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m²	9			
	Wrought softwood					
2	19 x 76mm cornices nailed	m	16			
	NAILED UP AND SCREW UP CEILINGS					
	6mm Everite Nutec fibre-cement boards with H-type steel cover strips over joints:					
3		m²	9			
4	Extra over ceiling for hinged trap door size 610 x 610mm	No	1			
4		NO	1			
				-		
	Carried To Section Summary Section No. 6			R		<u> </u>
	Bill No. 7					
	Ceilings Partitions And Access Flooring					
	195					
						224

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	1
	SECTION NO. 6					
	SECTION NO. 6 Guard House					
	BILL NO. 8					
	IRONMONGERY					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery:					
	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.					
	HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC					
	<u>"Solid":</u>					
1	CZ 80941WC indicator bolt with keep fixed to metal.	No	1			
	LOCKS					
	<u>'Solid"</u>					
2	CZ6822461 "Gower" Four lever lockset.	No	2			
	DOOR CLOSERS					
	<u>"Yale"</u>					
3	Y202RC Door closer with cover fixed to metal	No	1			
	BATHROOM FITTINGS					
	Kimberley-Clark:					
4	19mm Diameter chromium plated towel rail 900mm long					
	including flanged end brackets.	No	1			
5	Lockable toilet roll holder plugged.	No	1			
	SUNDRIES					
	<u>Solid:</u>					
6	38mm Diameter rubber door stop plugged.	No	2			
				_		
	Carried To Section Summary Section No. 6			R		
	Bill No. 8					
	Ironmongery					
	196					
						່າວຮ

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	<u>SECTION NO. 6</u> Guard House					
	BILL NO. 9					
	METALWORK					
	PREAMBLES For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	Descriptions:					
	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.					
	PRESSED STEEL DOOR FRAMES					
	1,2mm Rebated frames suitable for half brick walls:					
1	Frame for door 813 x 2032mm high.	No	1			
	1,2mm Rebated frames suitable for one brick walls:					
2	Frame for door 813 x 2032mm high.	No	1			
	STEEL WINDOWS, DOORS, ETC.					
	Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:					
3	Window type NCTX7S, size 1022 x 944mm high.	No	2			
4	Window type NCTX7S, size 1022 x 949mm high.	No	2			
5	Window type NCTX7S5, size 1511 x 949mm high.	No	1			
	STEEL LOUVRES,ETC					
	Purpose made louvres:					
6	Triangular shaped (on elevation) residential section louvred ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louvre blades fixed to surround and covered at back with No. 256 galvanised mesh mosquito gauze,fixed with and including 3 x 20mm steel flat section cover strips					
	screwed	No	2			
	Carried To Section Summary			R		
	Section No. 6			i v		
	Bill No. 9					
	Metalwork					
	197					

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Guard House					
	BILL NO. 10 PLASTERING					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	GRANOLITHIC					
	Untinted wood floated granolithic on concrete					
1	30mm Thick on floors and landings.	m²	9			
2	75mm thick high grano skirting	m	14			
	INTERNAL PLASTER					
	Cement plaster on brickwork:					
3	On walls.	m²	43			
4	On narrow widths.	m²	2			
5	30 x 3mm Flat section brass dividing strips between					
	different floor finishes.	m	1			
	CORNER PROTECTORS, DIVIDING STRIPS, ETC					
	Carried To Section Summary			R		
	Section No. 6 Bill No. 10					
	Plastering					
	198					
				'		່ງງວ

Mokhari SS Unit Quantity Amount Rate **SECTION NO. 6** Guard House **BILL NO. 11 TILING** PREAMBLES For preambles see "Specification of materials and methods to be used - PW371 WALL TILING 200 x 200 x 5mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere): On walls in isolated panels, splashbacks, etc. m² 1 1 Carried To Section Summary R Section No. 6 Bill No. 11 Tiling 199

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				Mokha	ari SS
	Unit	Quantity	Rate	Amount	1
SECTION NO. 6					
Guard House					
BILL NO. 12					
PLUMBING AND DRAINAGE					
PREAMBLES					
For preambles see "Specification of materials and methods to be used - PW371					
SUPPLEMENTARY PREAMBLES					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.					
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.					
Copper pipes:					
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.					
<b>Fixing of pipes</b> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level					
Carried to Collection Section No. 6 Bill No. 12			R		
Plumbing And Drainage					
200					

				Mokha	iri SS
1	Unit	Quantity	Rate	Amount	
Reducing fittings:					
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.					
Wire gratings:					
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.					
Septic tanks:					
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.					
Exposed concrete surfaces:					
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.					
Excavations:					
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
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 clause 3, 5.5, 5.6, 5.7 and 7 of SAB.					
Flush pans:					
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.					
Carried to Collection			R		
Section No. 6					
Bill No. 12					
Plumbing And Drainage					
201					

Unit Quantity Amount Rate Stainless steel basins, sinks, wash troughs, urinals, etc: Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable. Waste unions: Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. **RAINWATER DISPOSAL** Approved .6mm galvanised sheet iron with "chromadek" finish ,in: 100 x 100mm Eaves gutters 16 1 m 2 Extra over eaves gutter for angle/corner. No 4 Extra over eaves gutter for outlet for 75mm pipe. 2 3 No 4 75mm Diameter rainwater pipes. m 8 5 Extra over rainwater pipe for bend. No 2 6 Extra over rainwater pipe for shoe. No 2 SANITARY FITTINGS <u>"Vaal"</u> 510 x 405mm "Hibiscus" (code 7050) white vitreous 7 china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0) No 1 White vitreous china "Daisy" semi-close coupled 8 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat No 1 WASTE UNIONS ETC 'Cobra Watertech" 38mm "Cobra 316" unslotted waste and plug with chain 9 No 1 **TRAPS ETC** "Marley' 40mm Flexi butyl rubber trap with reseal "P" trap No 1 10 TAPS, VALVES, ETC 'Cobra Watertech': "Cobra Rf. 107EC-15" Bib tap 1 11 No Carried to Collection R Section No. 6 Bill No. 12 Plumbing And Drainage 202

					Mokha	iri SS
	I	Unit	Quantity	Rate	Amount	
12	15mm Gate valves	No	2			
	SANITARY PLUMBING					
	uPVC pipes:					
13	50mm Pipes	m	10			
14	110m Pipes.	m	15			
15	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	7			
16	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	20			
	Extra over uPVC pipes for fittings:					
17	50mm Bend.	No	4			
18	100mm Bend.	No	4			
19	110mm Junction.	No	2			
20	50mm Junction.	No	2			
21	110mm Reducing junction.	No	2			
22	110mm Double junction.	No	2			
23	110mm Pan connector	No	1			
24	110mm "G1 Two-way " vent valve	No	1			
	Sundries:					
25	Testing waste pipe system.	Item				
	WATER SUPPLIES					
	Class 9 uPVC pressure pipes:					
26	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	30			
	Extra over uPVC pressure pipes for solvent welded pressure fittings:					
27	63mm Elbow	No	2			
28	63mm Tee	No	2			
29	63mm Reducer.	No	1			
	Class o copper pipes:					
30	15mm Pipes	m	15			
31	22mm Pipes.	m	10			
	Carried to Collection			R		
	Section No. 6					<u> </u>
	Bill No. 12					
	Plumbing And Drainage					
	203					

					Mokha	ri SS
		Unit	Quantity	Rate	Amount	
	Extra over class o copper pipes for capillary fittings:					
32	15mm Fittings.	No	5			
33	22mm Fittings.	No	5			
	Copper overflow and service pipes:					
34	15mm Service pipe 300mm girth.	No	1			
	Sundries:					
35	450 x 450m cast iron stopcock box including brick					
	chamber below not exceeding 750mm deep internally.	No	1			
	Testing:					
36	Testing water pipe system.	Item				
	FIRE APPLIANCES ETC.					
	<u>'Chubb':</u>					
37	9kg Dry chemical fire extinguisher.	No	1			
	Carried to Collection			Б		
	Section No. 6			R		
	Bill No. 12					
	Plumbing And Drainage					
	204					

			Mokha	ri SS
1			Amount	
BILL NO. 12				
PLUMBING AND DRAINAGE				
COLLECTION				
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	Brought Forward from Page	200		
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	arried To Section Summary	R		
Section No. 6				
Bill No. 12				
Plumbing And Drainage	205			
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SECTION NO.5     Rate     Amount       SECTION NO.5     Guard House     Junt     Quantity     Rate     Amount       SECTION NO.5     Guard House     Sum of House     Junt     J						Mokha	ri SS
Suard House         BLL NO. 13         GLAZING         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         GLAZING TO STEEL WITH PUTTY         5 mm Rough cast glass:         2 Panes exceeding 0,1m2 and not exceeding 0,5m2.         3 mm Rough cast glass:         2 Panes exceeding 0,1m2 and not exceeding 0,5m2.         3 mon Slivered float glass:         3 mon Slivered float glass copper backed mitrors with polished edges fixed with double sided adhesive tabe:         3 Mirror 450 x 600 mm high.         No       1         Section No. 6         Bil No. 13			Unit	Quantity	Rate	Amount	
Suard House         BLL NO. 13         GLAZING         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         GLAZING TO STEEL WITH PUTTY         5 mm Rough cast glass:         2 Panes exceeding 0,1m2 and not exceeding 0,5m2.         3 mm Rough cast glass:         2 Panes exceeding 0,1m2 and not exceeding 0,5m2.         3 mon Slivered float glass:         3 mon Slivered float glass copper backed mitrors with polished edges fixed with double sided adhesive tabe:         3 Mirror 450 x 600 mm high.         No       1         Section No. 6         Bil No. 13							
Suard House         BLL NO. 13         GLAZING         PREAMBLES         For preambles see "Specification of materials and methods to be used - PW371         GLAZING TO STEEL WITH PUTTY         5 mm Rough cast glass:         2 Panes exceeding 0,1m2 and not exceeding 0,5m2.         3 mm Rough cast glass:         2 Panes exceeding 0,1m2 and not exceeding 0,5m2.         3 mon Slivered float glass:         3 mon Slivered float glass copper backed mitrors with polished edges fixed with double sided adhesive tabe:         3 Mirror 450 x 600 mm high.         No       1         Section No. 6         Bil No. 13							
BiLL NO. 13       GLAZING         PREAMBLES       For preambles see "Specification of materials and methods to be used - PW371         GLAZING TO STEEL WITH PUTTY       5mm Clear float glass:         1       Panes exceeding 0,1m2 and not exceeding 0,5m2.       m²         2       Panes exceeding 0,1m2 and not exceeding 0,5m2.       m²         3       Smm Rough cast glass:       1         2       Panes exceeding 0,1m2 and not exceeding 0,5m2.       m²         3       Mirror 450 x 600 RM MRORS. ETC.       6 mm Silvered float glass copper backed mirrors with polished edges fixed with double sided athesive tape:         3       Mirror 450 x 600 mm high.       No       1         3       Mirror 450 x 600 mm high.       No       1         Carried To Section Summary       R							
GLAZING       PREAMBLES         For preambles see "Specification of materials and methods to be used -PW371							
PREAMBLES       For preambles see "Specification of materials and methods to be used - PW371         GLAZING TO STEEL WITH PUTTY       5 mm Clear float glass:         1       Panes exceeding 0,1m2 and not exceeding 0,5m2.       m²         2       Panes exceeding 0,1m2 and not exceeding 0,5m2.       m²         3       TOPS, SHELVES, DOORS, MIRORS, ETC.       6 mm Silvered float glass cooper backed mirrors with pollshed edges fixed with double sided adhesive tape:       1         3       Mirror 450 x 600 mm high.       No       1         Carried To Section Summary         R							
For preambles see "Specification of materials and methods to be used - PW371         GLAZING TO STEEL WITH PUTTY         Smm Clear float glass:         1       Panes exceeding 0,1m2 and not exceeding 0,5m2.         2       Panes exceeding 0,1m2 and not exceeding 0,5m2.         3       TOPS, SHELVES, DOORS, MIRRORS, ETC.         6       mm Shvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:         3       Mirror 450 x 600 mm high.         No       1         Section No. 6       Bill No. 13         Glazing       Carried To Section Summary		GLAZING					
methods to be used - PW371         GLAZING TO STEEL WITH PUTTY         Smm Clear float glass:         1       Panes exceeding 0,1m2 and not exceeding 0,5m2.         2       Panes exceeding 0,1m2 and not exceeding 0,5m2.         3       TOPS, SHELVES, DOORS, MIRRORS, ETC.         6       mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:         3       Mirror 450 x 600 mm high.         No       1         Carried To Section Summary         Section No. 6         Bill No. 13         Glazing		PREAMBLES					
Smm Clear float glass:       n         Panes exceeding 0,1m2 and not exceeding 0,5m2.       m ² Panes exceeding 0,1m2 and not exceeding 0,5m2.       m ² Panes exceeding 0,1m2 and not exceeding 0,5m2.       m ² TOPS, SHELVES, DOORS, MIRRORS, ETC.       m ² Semin Silvered float glass copper backed mirrors       m ² with polished edges fixed with double sided adhesive tape:       n         Mirror 450 x 600 mm high.       No       1         Mirror 450 x 600 mm high.       No       1         Carried To Section Summary       R		For preambles see "Specification of materials and methods to be used - PW371					
1       Panes exceeding 0, 1m2 and not exceeding 0, 5m2.       m ² 4         5 mm Rough cast glass:       Panes exceeding 0, 1m2 and not exceeding 0, 5m2.       m ³ 1         2       Panes exceeding 0, 1m2 and not exceeding 0, 5m2.       m ³ 1         TOPS. SHELVES, DOORS, MIRRORS, ETC.       6 mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:       1         3       Mirror 450 x 600 mm high.       No       1         Final Mirror 450 x 600 mm high.       No       1         Carried To Section Summary       R		<b>GLAZING TO STEEL WITH PUTTY</b>					
Smm Rough cast glass:       m²       1         Panes exceeding 0,1m2 and not exceeding 0,5m2.       m²       1         TOPS, SHELVES, DOORS, MIRRORS, ETC.       6       mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:       No       1         3       Mirror 450 x 600 mm high.       No       1       1         4       Mirror 450 x 600 mm high.       No       1         5       Carried To Section Summary       R		<u>5 mm Clear float glass:</u>					
2       Panes exceeding 0,1m2 and not exceeding 0,5m2.       m²       1         TOPS, SHELVES, DOORS, MIRRORS, ETC.       6 mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:       1         3       Mirror 450 x 600 mm high.       No       1         4       Mirror 450 x 600 mm high.       No       1         5       Carried To Section Summary       R	1	Panes exceeding 0,1m2 and not exceeding 0,5m2.	M²	4			
TOPS, SHELVES, DOORS, MIRRORS, ETC.         6 mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:         3         3         Mirror 450 x 600 mm high.         No         1         R         Carried To Section Summary         Section No. 6         Bill No. 13         Glazing		<u>5 mm Rough cast glass:</u>					
Brm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:       No       1         3       Mirror 450 x 600 mm high.       No       1         4       Mirror 450 x 600 mm high.       No       1         5       Ecrried To Section Summary       R       Image: Carried To Section Summary Glazing	2	Panes exceeding 0,1m2 and not exceeding 0,5m2.	m²	1			
with polished edges fixed with double sided adhesive tape:         3       Mirror 450 x 600 mm high.         No       1         Image: Section No. 6 Bill No. 13         Glazing       Image: Section Summary Section Summary Section Summary Section No. 6		TOPS, SHELVES, DOORS, MIRRORS, ETC.					
Carried To Section Summary R		with polished edges fixed with double sided					
Section No. 6 Bill No. 13 Glazing	3	Mirror 450 x 600 mm high.	No	1			
Section No. 6 Bill No. 13 Glazing							
Section No. 6 Bill No. 13 Glazing							
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Bill No. 13 Glazing		-			ĸ		
Glazing							
206		Glazing					
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I		Unit	Quantity	Rate	Amount	
	SECTION NO. 6					
	Guard House					
	<u>BILL NO. 14</u> <u>PAINTWORK</u>					
	PREAMBLES					
	For preambles see "Specification of materials and methods to be used - PW371					
	SUPPLEMENTARY PREAMBLES					
	All work are to be executed in strict accordance with the paint specifications of Dulux Coating Systems. The coating systems have a 5-star (6 years) durability rating, unless otherwise specified. Full specifications are available on request from Ansie Mangelsdorf Tel.: (011) 861-1000 Cell.: 082 801 9336).					
	Primer (first) coats may be thinned in accordance with the specifications of Dulux Coating Systems to aid the absorption of the paint.					
	All surfaces must be sound, clean and have a moisture content of less than 12%.					
	Where surfaces of plaster, etc. are sandy the first coat must be replaced with 'Dulux Durabond Bonding Liquid'.					
	ON FLOATED PLASTER					
	<u>Prepare , etc as specified and apply two coats of super acrylic paint:</u>					
1	On interior walls.	m²	43			
	ON FIBRE-CEMENT, ETC.					
	Prepare, etc as specified and apply two coats of					
	super acrylic Pva paint:					
2	On ceilings and cornices.	m²	9			
3	On fascias and barge boards.	m	16			
	<u>ON METAL</u>					
	Prepare, etc as specified and apply two coats of gloss enamel paint on :					
4	Door frames	m²	3			
5	On windows with burglar bars (both sides measured).	m²	10			
	Inside eaves gutter					
6	Inside eaves gutter with waterproofing based paint	m²	6			
	Carried to Collection			R		
	Section No. 6					
	Bill No. 14					
	Paintwork 207					
I	207					~

					Mokha	ari SS
I		Unit	Quantity	Rate	Amount	I
7	Prepare,etc as specified and apply two coats of super acrylic Pva paint on: General surfaces of doors (interior). ON WOOD, WOOD BOARD Prepare, etc as specified and apply two coats of	m²	3			
	polyurethane suede varnish:					
8	On doors	m²	3			
	Carried to Collection Section No. 6 Bill No. 14 Paintwork			R		
	208					
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Amount <u>BILL NO. 14</u> PAINTWORK **COLLECTION** Page No Brought Forward from Page 207 208 Carried To Section Summary R Section No. 6 Bill No. 14 Paintwork 209

Amount

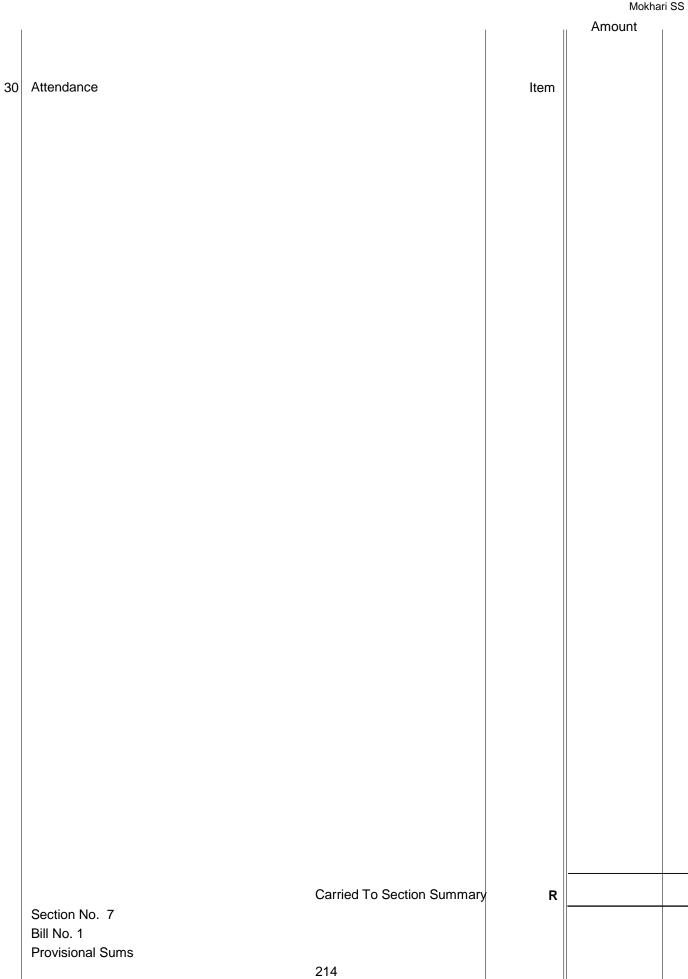
			Amount	
	SECTION NO. 6			
	Guard House			
	SECTION SUMMARY			
Bill No.		Page		
1	FOUNDATIONS	182		
2	CONCRETE, FORMWORK AND REINFORCEMENT	185		
3	MASONRY	189		
4	WATERPROOFING	190		
5	ROOF COVERINGS	191		
6	CARPENTRY AND JOINERY	194		
7	CEILINGS PARTITIONS AND ACCESS FLOORING	195		
8	IRONMONGERY	196		
9	METALWORK	197		
10	PLASTERING	198		
11	TILING	199		
12	PLUMBING AND DRAINAGE	205		
13	GLAZING	206		
14	PAINTWORK	209		
	Carried to Final Summary	R		
	Section No. 6 SECTION SUMMARY			
	210			

# SECTION NO. 7

## **Provisional Sums**

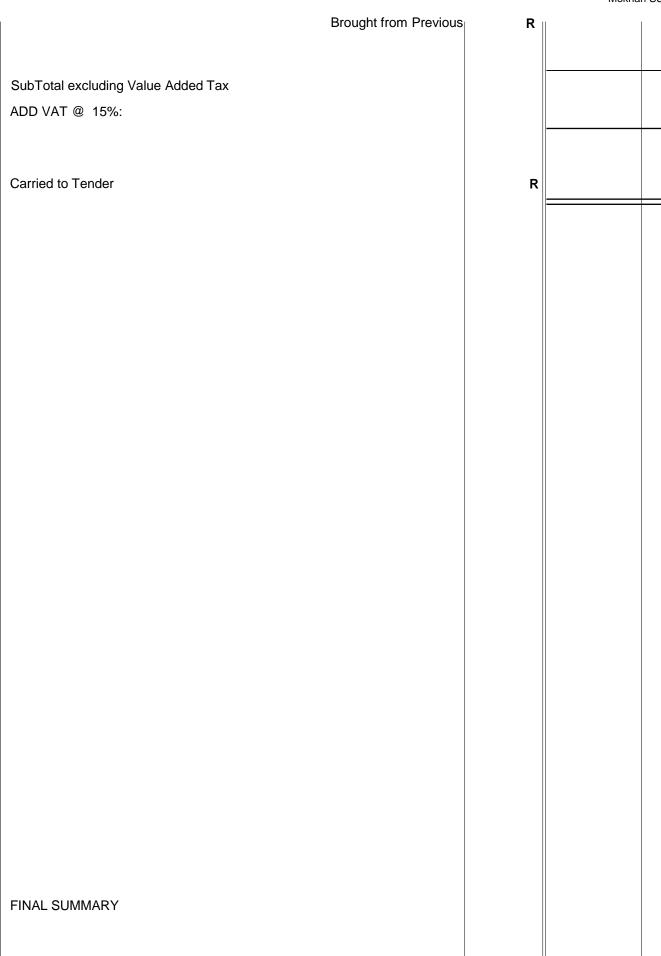
			Amount
			Amount
	SECTION NO. 7		
	Provisional Sums		
	NOTE: All provisional sums are nett		
	The Client reserves the right to omit any or all provisional sums allowed in his tender without claim for loss of profit by the Contractor		
	Flags, Flag Poles & Plaque		
1	Provide the amount of R30 000.00 (Thirty Thousand Rands) for flags and		
	plaque by a specialist	Item	30 000 00
2	Profit on above item.	ltem	
3	Attendance on ditto.	Item	
	Signage		
4	Provide the sum of R35 000.00 (Thirty Five Thousand Rands) for signage	Item	35 000 00
5	Profit	Item	
6	Attendance	Item	
	School furniture		
7	Provide the sum of R900 000.00 (Nine Hundred Thousand Rands) for supply		
	of school furniture	Item	900 000 00
8	Profit	Item	
9	Attendance	Item	
	Office equipments and furniture		
10	Provide the sum of R300 000.00 (Three Hundred Thousand Rands) for supply of Office equipments, furniture, first aid kit and sick bed in the		
	administration block by specialist.	Item	300 000 00
11	Profit	Item	
12	Attendance	ltem	
	Community liason officer		
13	Provide the budgedary allowance of R120 000.00 (One Hundred and Twenty		
	Thousand Rands) for employement of a community liason officer for labour		
	requirements by the contractor and deducted in whole or part if not required.	Item	120 000 00
14	Profit	Item	
15	Attendance	ltem	
	Carried To Section Summary	R	
	Section No. 7		
	Bill No. 1		
	Provisional Sums 212		
I		I	251

I	1	1	Amount
	Project Steering Committee (PSC)		
16	Provide the budgetary allowance of R12 000.00 (Twelve Thousand Rands) for employement of a PSC for labour requirements by the contractor and deducted in whole or part if not required.	Item	12 000 00
17	Profit	Item	
18	Attendance	Item	
	Joinery fittings		
19	Provide the sum of R300 000 (Three Hundred Thousand Rands) for joinery fittings by specialist	Item	300 000 00
20	Profit	Item	
21	Attendance	Item	
	Occupational Health and Safety Consultancy Services		
22	Provide the sum of R500 000.00 (Five Hundred Thousand Rands) for occupational health and safety services to be appointed by the Employer	ltem	500 000 00
23	Profit	Item	
24	Attendance	Item	
	WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS (OHS)		
	The following work will be executed by contractors under direct agreement with the employer. The contractor is to accommodate these direct contractors and allow them to execute their work unhindered and allow them the use of water and toilet facilities. Damage caused by these contractors to work completed by the principal contractor is to be recorded in detail to enable the employer to counter-charge the direct contractors the cost of making good such damages.		
25	Occupational Health and Safety Consultant	Item	350 000 00
26	Profit	Item	
27	Attendance	Item	
	WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS (SF)		
	The following work will be executed by contractors under direct agreement with the employer. The contractor is to accommodate these direct contractors and allow them to execute their work unhindered and allow them the use of water and toilet facilities. Damage caused by these contractors to work completed by the principal contractor is to be recorded in detail to enable the employer to counter-charge the direct contractors the cost of making good such damages.		
28	Social Facilitator	Item	250 000 00
29	Profit	Item	
	Carried To Section Summary	R	
	Section No. 7 Bill No. 1		
	Provisional Sums 213		
	210	II	I



I			Amount
SECTION NO. 7			
Provisional Sums			
SECTION SUMMARY			
		Page	
	Prought forward from page		
	Brought forward from page	212	
	Brought forward from page	213	
	Brought forward from page	214	
		_	
Section No. 7	Carried to Final Summary	R	
SECTION SUMMARY			
	045		
	215		

Section No.	FINAL SUMMARY	Page		
1	Preliminaries and Generals	40		
2	Renovations (12CR, 16Waterborne, Nutrition)	77		
3	2 x 5 Classroom Block	110		
4	Medium Administration Block	146		
5	4 x 4 Waterborne Toilet	178		
6	Guard House	210		
7	Provisional Sums	215		
	ADD: CONTINGENCIES Allow the Amount of R600 000 (Six Hundred Thousand Rands) for contingencies, to be used by the Architect in terms of Clause 17 of the Principal Building Agreement. ADD: CPAP ALLOWANCE Allow the amount of R600 000 (Six Hundred Thousand Rands) for CPAP (Contract Price Adjustment Provisions) as Item 38.5.3 of the Schedule in the Preliminaries Bill No.1, to be used in terms of Clause 28.11 of the Principal Building Agreement. ADD: PART B AND PART C ELECTRICAL INSTALLATIONS AND CIVIL WORKS	R	600 000	
	246			
l	216			



## **REPUBLIC OF SOUTH AFRICA**

LIMPOPO DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE

**MOKHARI COMBINED SCHOOL** 

LDPWRI-B/20290

# PART B ELECTRICAL INSTALLATIONS BILLS OF QUANTITIES

DESCRIPTION	AMOUNT					
Preliminary and General and Transport	R 0,00					
Internal Installation	R 0,00					
Site Reticulation	R 0,00					
PVC Sleeves for Electric Installation	R 0,00					
HVAC	R 0,00					
Prov Sum for Eskom Bulk Power Supply	R 327 500,00					
Prov Sum for CCTV	R 100 000,00					
A	R 427 500,00					
itingency	R 42 750,00					
	R 470 250,00					
	R 70 537,50					
THE WORKS	R 540 787,50					
ns: entage on New Rate Items%. Labour cost shall be base	ed on the bill of rates.					
DR:						
SIGNATURE:						
	Site Reticulation PVC Sleeves for Electric Installation HVAC Prov Sum for Eskom Bulk Power Supply Prov Sum for CCTV A tringency THE WORKS ns: entage on New Rate Items%. Labour cost shall be base DR:					

1	
	Internal Installations Bill- Mokhari School

	al Installations Bill- Mokhari School				
ITEM	DESCRIPTION	UNIT	Scheduled Qty	Rate	TOTAL
	BILL 2				
	CONDUIT WORK				
	Flush in walls, floors and concrete slabs against wooden and steel structures and walls in ceiling void, indoor and outdoor, chasing of floors and walls where necessary, etc.				
2	CONDUIT				
	20 mm dia PVC				
2,1	Material	m	5000		0,00
2,2	Installation	m	5000		0,00
	50 mm dia PVC				
2,3	Material	m	2500		0,00
2,4	Installation	m	2500		0,00
3	STEEL BOXES AND COVER PLATES				
	20mm PVC Round conduit boxes				
3,1	Material	No	206		0,00
3,2	Installation	No	206		0,00
	Galvanized Steel wall boxes with cover plates				
	100 x 50 x 50 mm				
3,3	Material	No	102		0,00
3,4	Installation	No	102		0,00
	TOTAL CARRIED FORWARD				0,00

I

			Scheduled	
ITEM	DESCRIPTION	UNIT	Qty	TOTAL
	TOTAL BROUGHT FORWARD			0,00
4	CONDUCTORS			
	PVC Insulated copper conductors			
	1,5sq mm			
4,1	Material	m	0	
4,2	Installation	m	0	
	2,5sq mm			
4,3	Material	m	10000	0,00
4,4	Installation	m	10000	0,00
	4sq mm			
4,5	Material	m	5000	0,00
4,6	Installation	m	5000	0,00
	6sq mm			
4,7	Material	m	0	0,00
4,8	Installation	m	0	0,00
	TOTAL CARRIED FORWARD			0,00

			Scheduled	
ITEM	DESCRIPTION	UNIT	Qty	TOTAL
	TOTAL BROUGHT FORWARD			0,00
	Stranded Bare Copper Earth Wire			
	2,5sq mm			
4,11	Material			
4,12	Installation	m	5000	0,00
		m	5000	0,00
	4,0sq mm			
4,13	Material	m	2500	0,00
4,14	Installation	m	2500	0,00
	Galvanized Draw wire			
	1,5sq mm			
4,15	Material	m	5000	0,00
4,16	Installation	m	5000	0,00
5	SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR FLUSH INSTALLATION INCLUDING COVERPLATES			
	Switches			
	16 A Single Lever 1 way			
5,1	Material	No	80	0,00
5,2	Installation	No	80	0,00
	16A 1 Lever 2 way			
5,3	Material			
5,4	Installation			

	Socket Outlets with switch			
	16A 3 pin Double 100 x 100			
5,5	Material	No	80	0,00
5,6	Installation	No	80	0,00
	Isolators			
	20A 2 pole, 100 x 100			
5,6	Material	No	27	0,00
5,7	Installation	No	27	0,00
	40A 2 pole, 100 x 100			
5,8	Material	No	28	0,00
5,9	Installation	No	28	0,00
	TOTAL CARRIED FORWARD			0,00

		Scheduled		
DESCRIPTION	UNIT	Qty		TOTAL
TOTAL BROUGHT FORWARD				0,00
SQUARE TUBING				
<b>POWER SKIRTING</b> Supply and installation of power skirting complete with covers and end caps. Tenderers shall make provision for				
Material				
Installation				
PHOTOCELL / DAYLIGHT SWITCH Royce Thompson type Oasis 2000, Min lamp Load of 10A or equal				
Material	No	8		0,00
Installation	No	8		0,00
BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOF				
Installation	lot	5		0,00
	TOTAL BROUGHT FORWARD SQUARE TUBING POWER SKIRTING Supply and installation of power skirting complete with covers and end caps. Tenderers shall make provision for Material Installation PHOTOCELL / DAYLIGHT SWITCH Royce Thompson type Oasis 2000, Min lamp Load of 10A or equal Material Installation BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOF	TOTAL BROUGHT FORWARDSQUARE TUBING POWER SKIRTING Supply and installation of power skirting complete with covers and end caps. Tenderers shall make provision forMaterial InstallationMaterial Royce Thompson type Oasis 2000, Min lamp Load of 10A or equal Material InstallationMaterial No InstallationMaterial Material Material Material MaterialMotion Composition type Oasis 2000, Min lamp Load of 10A or equal MaterialMaterial Material MaterialMaterial Material MaterialMaterial Material MaterialMaterial Material MaterialMaterial Material MaterialMaterial Material MaterialMaterial MaterialMaterial MaterialMaterial MaterialMaterial Material MaterialMaterial Material MaterialMaterial Material MaterialMaterial Material MaterialMaterial Material Material MaterialMaterial Material Material Material MaterialMaterial Material Material Material Material Material Material Material Material 	DESCRIPTIONUNITQtyTOTAL BROUGHT FORWARDIISQUARE TUBING POWER SKIRTING Supply and installation of power skirting complete with covers and end caps. Tenderers shall make provision forIIMaterial InstallationIIIPHOTOCELL / DAYLIGHT SWITCH Royce Thompson type Oasis 2000, Min lamp Load of 10A or equal Material InstallationNo8BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOFNo8	DESCRIPTIONUNITQtyTOTAL BROUGHT FORWARDIISQUARE TUBING POWER SKIRTING Supply and installation of power skirting complete with covers and end caps. Tenderers shall make provision forIIMaterial InstallationIIIPHOTOCELL / DAYLIGHT SWITCH Royce Thompson type Qasis 2000, Min lamp Load of 10A or equal Material InstallationNo8BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOFNo8I

9	EARTHING AND LIGHTING PROTECTION			
	Supply, install and test a complete class 2 lightning protection installation, including alu and cu conductors, test joints, steel conduits, earth electrodes etc.			
9,1	Material	lot	8	0,00
9,2	Installation	lot	8	0,00
10	TESTS OF THE COMPLETE ELECTRICAL INSTALLATION AND ISSUING OF COC'S			
10,1	Installation	lot	5	0,00
	Total for Bill 2 carried to summary sheet			0,00
ІТЕМ	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	BILL 3			
11	LIGHT FITTINGS Tenderer shall include tubes or lamps and 5A unswitched plug in his tender rates. The light fittings shall be installed complete with lamps. Colour to be advised where not specified Light Fittings samples shall be submitted for approval before final order is made			
11,1	TYPE 1 - (Surface mounted LED Open Channel, IP20, fitted with 2 x 18W LED tubes, minimum 2320lm output per tube, colour temp 4000k)			
	Material	No	214	0,00
	Installation	No	214	0,00
11,2	TYPE 2 - IP65, vapour proof, open channel with 2 x 24W T8 LED tubes with lumen output of 1720lm per tube.			
	Material	No	4	0,00
	Installation	No	4	0,00
11,3	TYPE B1 - IP65 Wall and ceiling mounted mounted bulkhead complete with 1 x 30W LED bulb .			
	Material	No	74	0,00
	Installation	No	74	0,00
11,4	Type 3 - Open Channel complete with 2 x 24W T8 LED tubes .Each tube to have a lumen output of 2315lm.			
	Material	No	0	0,00
	Installation	No	0	0,00

l otal for Bill 3 carried to summary sneet 0,00		Total for Bill 3 carried to summary sheet				0,00
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ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	DESCRIPTION		Qty	TOTAL
	BILL 4			
12	DISTRIBUTION BOARDS AND KIOSKS			
12,1 12,2	Site Kiosk. Refer to the Kiosk Schematics Material Installation, including Kiosk plinth	No No	1	0,00 0,00
12,2				0,00
12,3 12,4	Block DBs, Refer to Schematics Material Installation	No No	5 5	0,00 0,00
	Telephone and Computer Distribution Board			
	500 x 500 x 250 mm surface type distribution board installed flush			
	Material	No	1	0,00
12,6	Installation	No	1	0,00
	Telephone point	No		
	Material	No	5	0,00
12,8	Installation	No	5	0,00
	Computer point			
	Material	No	5	0,00
12,10	Installation	No	5	0,00
	Total for Bill 4 carried to summary sheet			0,00
ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL

#### SUMMARY OF QUANTITIES

BILL	DESCRIPTION	Scheduled Value
2	Conduit Work	0,00
3	Light Fittings	0,00
4	Distribution Board	0,00
	SUB TOTAL	0,00

ТЕМ	DESCRIPTION	UNIT	Scheduled Qty	Rate	TOTAL
	BILL 5				
13	LOW VOLTAGE CABLES				
	Low Voltage cables 600 to 1000 PVC insulated steel wire armoured, copper cables underground cable				
	Cable in trenches, sleeves and building duct also in ceiling void if necessary				
	70 mm sq x 4 core				
	25mm sq x 2 core				
13,1	Material	m	50		0,00
	Installation	m	50		0,00
	16mm sq x 2 core				
13,3	Material	m	400		0,00
13,4	Installation	m	400		0,00
	TERMINATIONS				
	25mm sq x 2 core				
13,5	Material	No	2		0,00
13,6	Installation	No	2		0,00
	16mm sq x 2 core				
13,7	Material	No	16		0,00
13,8	Installation	No	16		0,00
	TOTAL CARRIED FORWARD				0,00

ITEM	DESCRIPTION	UNIT	Scheduled Qty	Т	OTAL
	TOTAL BROUGHT FORWARD				0,00
14	COPPER EARTH WIRE				
	25mm sq				
14,1	Material	m	50		0,00
14,2	Installation	m	50		0,00
	16mm sq				
14,3	Material	m	400		0,00
14,40	Installation	m	400		0,00
15	Yellow Cable Marker / Danger Tape				
15,1	Material	m	25		0,00
15,2	Installation	m	25		0,00
	TOTAL CARRIED FORWARD TO SUMMARY				0,00
	SUMMARY OF QUANTITIES	-			

BILL	DESCRIPTION	Scheduled Value
5	LOW VOLTAGE CABLES	0,00
	SUB TOTAL	0,00

TEM	DESCRIPTION	UNIT	Scheduled Qty	Rate	TOTAL
	BILL 6				
16	PVC SLEEVES FOR ELECTRIC AND COMMUNICATION				
	PVC SLEEVES complete with bends				
	100mm dim				
16,1	Material	m	0		0,00
16,2	Installation	m	0		0,00
	50mm dim				
16,3	Material	m	150		0,00
16,4	Installation	m	150		0,00
	Excavation				
16,5	Soft Rock and Earth	m3	100		0,00
16,6	Hard Rock	m3	80		0,00
16,7	Very Hard Rock	m3	0		0,00
	Sifted Soil Bedding and Cover				
16,8	Material	m3	50		0,00
16,9	Labour	m3	50		0,00
17	Prepare As Built Drawings for all Layouts				
	As Built Drawings	lot	1		0,00
18	Manholes 600 x 600mm with Heavy duty Steel cover				
18,1	Material	No	3		0,00
18,2	Labour	No	3		0,00
19	Concrete Cable Markers				
19,1	Material	Lot	1		0,00
19,2	Labour	Lot	1		0,00
	TOTAL CARRIED TO SUMMARY		1		0,00

## **REPUBLIC OF SOUTH AFRICA**

LIMPOPO DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE

**MOKHARI COMBINED SCHOOL** 

LDPWRI-B/20290

# PART C CIVIL WORKS BILLS OF QUANTITIES

Item	Payment Referenc e	Description	Unit	Qty	Rate	Amount
	SABS 1200 D	SCHEDULE 1: EARTHWORKS				
		SITE CLEARANCE				
Alternative see	8.3.1	Clear and grub area for				
1200C 1200DM		Buildings	m²	1978		
Alternative		PREPARATION AND STRIPPING OF SITE				
1200DB 1200DM	8.3.1	Remove topsoil to a depth of 150mm and				
		Stockpile on site within freehaul distance and maintain	m³	296.70		
		Spoil at designated spoil site	m³	118.68		
		EXCAVATION				
	8.3.2	Excavate in all materials and use as fill, compacted to 90% mod				
		Platforms	m³	356.04		
	8.3.2	Extra over item 8.3.2 (a) for				
		Intermediate excavation	m³	106.81		
		Hard rock excavation	m³	71.21		
		Boulder excavation class A	m³	7.12		
		Boulder excavation class B	m³	7.12		
		COMMERCIAL MATERIAL				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from:				
		Commercial sources selected by the Contractor	m³	237.36		
	-		тот	AL CARRIE	D FORWARD	

ltem	Payment Referenc e	Description	Unit	Qty	Rate	Amount
ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
		DESIGNATED BORROW PIT (ARRANGED BY EMPLOYER)				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from				
		Designated borrow pits	m³	1,186.80		
	8.3.4	Opening up and closing down of designated borrow pit	sum	1.00		
		<u>OVERHAUL</u>				
	8.3.6	Overhaul (Provisional)				
		Limited overhaul	m³	356.04		
		Long overhaul	m³.km	237.36		
		COMPACTION OF BACKFILLING				
	8.3.9	Selected material compacted to 93% mod AASHTO density	m³	1,424.16		
		Mod AASHTO Tests	No.	29.00		
Carried forwa	ard to Sum	mary of Schedules	!			

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)				
	SANS					
1	SANS	EARTHWORKS				
1.2		TREATMENT OF ROAD-BED				
1.2.1	8.3.3(a)	Road-bed preparation and compaction of material compacted to 93% MOD AASHTO maximum density	m³	422.40		
1.2.2	8.3.3(b)	In-place treatment of road-bed in intermediate or hard material				
		Ripping	m ³	84.48		
1.3		EARTHWORKS				
1.3.1	8.3.4	Cut to fill				
		Compact to 90 % mod. AASHTO maximum density	m ³	211.20		
		Selected layer compacted to 93 % mod. AASHTO maximum density	m ³	211.20		
1.3.2	8.3.6	Extra-over items 1.3.1 inclusive for excavating and breaking down material in:				
		Intermediate excavation	m ³	42.24		
		Hard excavation	m ³	21.12		
1.3.3	8.3.7	Cut to spoil from				
		Soft excavation	m ³	422.40		
		Intermediate excavation	m ³	84.48		
		Hard excavation	m ³	12.67		
1.3.4	8.3.8	Removal of oversize material	m ³	6.34		
		TOTAL	CARRIED	FORWARD		

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
			ΤΟΤΑ	L BROUGHT	FORWARD	
1.4	SABS 1200 DM	SUNDRIES				
	8.3.10	Materials bladed to windrow	m³	0.00		
	8.3.11	Extra-over items 8.3.7 and 8.3.8 for temporary stockpiling of material	m³	30.00		
		Construction of storm water berm allong the designated areas by engineer	m ³	0.00		
1.5	SABS 1200 ME	SECTION : SUBBASE				
	8.3.1	Construct gravel wearing course with material from borrow pits in all materials				
		150mm to main carriageways	m³	422.40		
	8.3.4	Extra over items .1 to .2 inclusive for class of				
		Intermediate excavation	m³	84.48		
		Hard rock excavation	m³	63.36		
1.6	SANS 1200 MFL	BASE				
	8.3.1	Construct base with material from borrow pit				
		Stabilized base using material from borrow 150mm to 95% mod AASHTO	m ³	422.40		
1.7	8.3.4	Stabilizing Agent				
		(b) Portland Cement	m ³	12.67		
1.8	SANS 1200 MJ	SEGMENTED BLOCK PAVING TO THE ACCESS ROAD				
	8.2.2	80mm Type S-A 35mPa for roadway (Grey	m²	0.00		
	8.2.2	60mm Type S-A 35mPa for roadway (Grey	m²	2,816.00		
	8.2.1	The construction of edge restraints	m	125.16		
			тот		FORWARD	

1.8       SANS 1200 MK       KERBING AND CHANNE         8.2.2       Supply, bed, lay, & joint         1.8.1       400X200 Concrete edge Concrete Strenath).         a) 1m Length on straight	ELLING concrete sections:	TAL BROUGHT	FORWARD	
1200 MK         8.2.2       Supply, bed, lay, & joint         1.8.1       400X200 Concrete edge Concrete Strength).	concrete sections: strip (Class 20/19			
1.8.1 400X200 Concrete edge Concrete Strenath).	strip (Class 20/19			
Concrete Strenath).				
a) 1m Length on straight	m			
		155.00		
b) 330mm Length on curv	ves m	20.00		
1.8.2 300X150 Barrier Kerb (S	<b>ABS 927 Fig 3).</b> m	558.00		
1.8.3 Mountable Kerb (SABS	<b>927 Fig 3).</b> m	111.60		
9 1200 DK SUBSOIL DRAINS				
9.1 1200 DK Supply and install A4 Bid to the subsoil drains, as	im Geosynthetic materials per drawings. m ²	40.00		
	n Class 6 HDPE perforated <b>s</b> outlet, as per drawings. m	50.00		
9.3 1200 DK Supply and install 1,5mm 8.2 Geomembrane as the line drawings.		44.00		
9.4 1200 DK Supply and install A7 <b>Bid</b> 8.2 <b>proetction</b> layer to channel		60.00		
9.5 SANS CONCRETE				
	25MPa c <b>oncrete in hyson</b> seosynthetic proetction m ³	50.03		
9.5.2 8.4.3 Supply, place and shape <b>cells</b> in the <b>leachate out</b> drawings.	25MPa <b>concrete in hyson</b> l <b>et channel,</b> as per m³	12.51		
	тс	TAL CARRIED	FORWARD	

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT	
		TOTAL BROUGHT FORWARD					
10		STORMWATER MANAGEMENT					
	SANS	EARTHWORKS					
10.1		EXCAVATIONS					
10.1.1	1200 D 8.3.2	Excavate and prepare all cut off trenches and berms around the site as shown on the drawings and as directed by the Engineer.	m³	7.50			
10.1.2		Disposal of unsuitable or surplus material off site	m³	2.25			
10.2	SANS 1200 G	Concrete					
10.2.1	8.4.1	Mass concrete backfilling to replace unsuitable material, prescribed mix, Grade 10MPa/20 mm	m³	2.25			
10.2.2	8.4.2	Blinding layer, 50 mm minimum, prescribed mix, Grade 15MPa/20 mm	m²	2.50			
10.2.3	8.4.3	Strength concrete Grade 25 MPa/20 mm for:					
10.3		Concrete Channels	m³	11.25			
10.3.1	8.1.1	Formwork					
10.3.2	8.2.5	Rough, vertical, circular, maximum height 300 mm.	m	90.00			
10.3.3	8.2.5	Smooth, circular, vertical, 175 mm high to outer edge of base footing, (including forming of drainage lips with 110 mm dia drips)	m	20.00			
10.3.4	PSA8-11	Forming of drainage lips with 110 mm dia drips as per detail, Drawing	No	4.00			
10.3.5	8.4.4	Unformed surface finishes					
10.3.6		Steel float finish	m²	50.00			
			TOTAL	CARRIED TO	SUMMARY		
	TOTAL CARRIED TO SUMMARY						

ltem No.	Payment Refers	Short Description	Unit	Quantity	Rate	Amount
2	SABS 1200A	SCHEDULE 3 - STEEL PALISADE FENCING				
2.1	PCC-4.1	Steel palisade fencingn 2,4m high according to specification including excavations, foundation concreting, posts, pales and ground beams. All as per drawing.	m	625.00		
2.2	PCC-4.1	Supply and install according to specification a 6m wide vehicular gate	No	1.00		
2.3	PCC-4.1	Supply and install according to specification 1.5m wide pedestrian gate as per drawing	No	1.00		
2.4	PCC-4.1	Repainting of the existing fence	m²	0.00		
<b></b>						
SUB - T	OTAL CA	RRIED TO SUMMARY				

NO.REFRESOTYRATENO.RATEOTYRATESCHEDULE 4: WATER SUPPLY PIPELINES AND WATER SOURCEImage: Source is a stress of the source is a stress	ITEM	PAYMEN T	DESCRIPTION	UNIT	Estimated		AMOUNT
Source       Source       Image: source <th< th=""><th>NO.</th><th></th><th></th><th>0</th><th>QTY</th><th>RATE</th><th>/</th></th<>	NO.			0	QTY	RATE	/
120008EAR HWORKS : PIPE IRENCIESIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>							
3.1.18.3.1(a)Clear 2m wide vegetation and trees of girth up to 1mm1.520.003.1.28.3.1(a)Remove trees over 1 m and up to 2 m girthNo.0.003.2PSDB12EXCAVATION $No.$ 0.003.2.1Stacevate in all materials for trenches for pipes with a diameter between 20 mm and 100 mm, backfill compact and dispose of surplus/unsuitable materialm³1,520.003.2.1.18.3.2(b)Extra-over item 3.2.1 incl. for excavation (provisional) in : a) Intermediate material 			EARTHWORKS : PIPE TRENCHES				
1.1.1 3.1.2No.0.000.003.1.28.3.1(b)Remove trees over 1 m and up to 2 m girthNo.0.003.2.1PSDB12EXCAVATIONImage: Second 1 materials for trenches for pipes with a diameter between 20 mm and 100 mm, backfill compact and dispose of surplus/unsuitable materialMo.0.003.2.1.18.3.2(b)Extra-over item 3.2.1 incl. for excavation (provisional) in : a) Intermediate material b) Hard rock material $m^3$ 304.00 228.00Image: Second 1.5 mm and 1.5 mm	3.1		SITE CLEARANCE				
A.1.1 3.2PSDB12EXCAVATION EXCAVATIONExcavate in all materials for trenches for pipes with a diameter between 20 mm and 100 mm, backfill compact and dispose of surplus/unsuitable materialmail minicipass1,520.003.2.1.18.3.2(b)Extra-over item 3.2.1 incl. for excavation (provisional) in : a) Intermediate material b) Hard rock materialmail minicipass1,520.003.2.1.2Extra-over item 3.2.1mail minicipassmail minicipass304.00 228.003.2.1.2Extra over Item 3.2.1mail minicipassmail minicipass1,520.003.2.1.4Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTOmail minicipass1,520.003.2.2.28.3.3.1(a)Imported backfill materials from designated borrow pits (Only if approved by Englineer)mail minicipass532.003.2.2.28.3.3.2Opening up and closing down of designated borrow pitsP.Sum1.0022.000.003.2.2.38.3.3.4Opening up and closing down of designated borrow pitsmail m ³ 22.000.003.2.2.48.3.3.4Opening up and closing down of designated borrow pitP.Sum1.0022.000.003.2.4.18.3.54Opening up and closing down of designated borrow pitmail m ³ 3.2.4.18.3.54Opening up and closing down of designated borrow pitmail m ³ 3.2.4.18.3.54Opening up and closing down of designated borrow pitmail m ³ 3.2.4.19.	3.1.1	8.3.1(a)	Clear 2m wide vegetation and trees of girth up to 1m	m	1,520.00		
3.2.1       Sace and a serial materials for trenches for pipes with a diameter between 20 mm and 100 mm, backfill compact and dispose of surplus/unsuitable material       m ³ 1,520.00         3.2.1.1       Sa.2(b)       Extra-over item 3.2.1 incl. for excavation (provisional) in : <ul> <li>a) Intermediate material</li> <li>b) Hard rock material</li> <li>b) Hard rock material</li> <li>m⁴</li> <li>a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO</li> <li>m⁴</li> <li>m⁴</li> <li>f.520.00</li> </ul> 1,520.00     Package     Package </td <td>3.1.2</td> <td>8.3.1(b)</td> <td>Remove trees over 1 m and up to 2 m girth</td> <td>No.</td> <td>0.00</td> <td></td> <td></td>	3.1.2	8.3.1(b)	Remove trees over 1 m and up to 2 m girth	No.	0.00		
3.2.1.1       between 20 mm and 100 mm, backfill compact and dispose of surplus/unsuitable material       m ^a 1,520.00         3.2.1.1       8.3.2(b)       Extra-over item 3.2.1 incl. for excavation (provisional) in :       m ^a 304.00         3.2.1.2       a) Intermediate material       m ^a 304.00       228.00         3.2.1.2       Extra over Item 3.2.1       Extra over Item 3.2.1       m ^a 304.00         3.2.1.2       b. Hard rock material       m ^a 304.00       228.00         3.2.1.2       b. Extra over Item 3.2.1       m ^a 304.00       228.00         3.2.1.2       b. Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO       m ^a 1,520.00         3.2.2.1       8.3.3.1(a)       Imported backfill materials from designated borrow pits (Only if approved by Engineer)       m ^a 532.00         3.2.2.2       8.3.3.3       Opening up and closing down of designated borrow pits (Only if approved by Engineer)       m ^a 0.00         3.2.2.4       8.3.3.4       Overhau1:       m ^a 0.00       22.000.00       R 22.00         3.2.2.4       8.3.3.4       Overhau1:       m ^a 0.00	3.2	PSDB12	EXCAVATION				
3.2.1.18.3.2(b)Extra-over item 3.2.1 incl. for excavation (provisional) in : a) Intermediate material b) Hard rock materialm³ m³304.00 228.00star all substrated in the star 228.003.2.1.2Extra over Item 3.2.1 a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTOm³304.00 228.00For the star 228.003.2.2Extra over Item 3.2.1 a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTOm³1,520.00R3.2.28.3.3.1(a) approved by Engineer)Imported backfill materials from designated borrow pits (Only if approved by Engineer)m³532.0022,000.00R22,000.003.2.2.28.3.3.2Opening up and closing down of designated borrow pitP.Sum1.0022,000.00R22,000.003.2.2.38.3.3.3Compaction in road reservesm³0.0022,000.00R22,000.003.2.2.48.3.3.4Overhaul : a) Short haul b) Truck haulm³n.0022,000.00R22,000.003.2.4.1SABS120 B.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular materialm³228.001	3.2.1		between 20 mm and 100 mm, backfill compact and dispose of				
3.2.1.2       a) Intermediate material b) Hard rock material       m ^a 328.00       228.00         3.2.1.2       Extra over Item 3.2.1       Extra over Item 3.2.1       ma       ma </td <td></td> <td></td> <td>Up to 1,5m in depth</td> <td>m³</td> <td>1,520.00</td> <td></td> <td></td>			Up to 1,5m in depth	m³	1,520.00		
3.2.1.2b) Hard rock materialm³228.003.2.1.2Extra over Item 3.2.1Image: Stra over Item 3.2.1Image: Stra over Item 3.2.1a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTOImage: Stra over Item 3.2.1Image: Stra over Item 3.2.13.2.2Image: Stra over Item 3.2.1Image: Stra over Item 3.2.1Image: Stra over Item 3.2.1Image: Stra over Item 3.2.13.2.2Image: Stra over Item 3.2.1Image: Stra over Item 3.2.1Image: Stra over Item 3.2.1Image: Stra over Item 3.2.13.2.2.3Image: Stra over Item 3.2.1Image: Stra over Item 3.2.1Image: Stra over Item 3.2.1Image: Stra over Item 3.2.13.2.2.4Sa3.3Opening up and closing down of designated borrow pitP.Sum1.0022,000.003.2.2.3Sa3.3Compaction in road reservesm³0.00Image: Stra over Item 3.2.13.2.4.1Sa3.4Overhaul : a) Short haul b) Truck haulm³image: Stra over Item 3.2.1Image: Stra over Item 3.2.13.2.4.1SABS120 	3.2.1.1	8.3.2(b)	Extra-over item 3.2.1 incl. for excavation (provisional) in :				
A.2.2a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTOm³J.520.00J.520.00RP.503.2.2.18.3.3.1(a) approved by Engineer)Imported backfill materials from designated borrow pits (Only if approved by Engineer)m³532.0022,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R22,000.00R							
A.2.2Methods in layers of 200mm compacted to 90% mod AASHTOm³1,520.00Fragment compacted to 90% mod AASHTO3.2.2EXCAVATION ANCILLARIESImage compacted to 90% mod AASHTOm³1,520.00Image compacted to 90% mod AASHTO3.2.2.18.3.3.1Imported backfill materials from designated borrow pits (Only if approved by Engineer)m³532.0022,000.00R22,000.003.2.2.28.3.3.2Opening up and closing down of designated borrow pitP.Sum1.0022,000.00R22,000.003.2.2.38.3.3.3Compaction in road reservesm³0.00image compacted to 90% mod AASHTOm³0.003.2.4.1SABS120 B.2.1Provision OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular materialm³228.00Image compacted to 90% mod AASHTO	3.2.1.2		Extra over Item 3.2.1				
3.2.2.18.3.3.1(a)Imported backfill materials from designated borrow pits (Only if approved by Engineer)m³532.00AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA				m³	1,520.00		
approved by Engineer)m³532.003.2.2.28.3.3.2Opening up and closing down of designated borrow pitP.Sum1.0022,000.00R22,0003.2.2.38.3.3.3Compaction in road reservesm³0.000.001.001.001.001.003.2.2.48.3.3.4Overhaul : a) Short haul b) Truck hauloverhaul : b) Truck haulm³0.001.001.001.001.003.2.4.1SABS120 0LB 8.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular materialm³228.001.001.00	3.2.2		EXCAVATION ANCILLARIES				
3.2.2.38.3.3.3Compaction in road reservesm³0.003.2.2.48.3.3.4Overhaul : a) Short haul b) Truck haulm³0.003.2.4.1SABS120 0LB 8.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular materialm³228.00	3.2.2.1	8.3.3.1(a)		m³	532.00		
3.2.2.4       8.3.3.4       Overhaul :       a) Short haul       m³       -         a) Short haul       b) Truck haul       m³/km       -       -         3.2.4       SABS120 0LB 8.2.1       PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations       m³       228.00	3.2.2.2	8.3.3.2	Opening up and closing down of designated borrow pit	P.Sum	1.00	22,000.00	R 22,000.00
3.2.4SABS120 OLB 8.2.1PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular materialm³m³m³228.00	3.2.2.3	8.3.3.3	Compaction in road reserves	m³	0.00		
3.2.4     SABS120 OLB 3.2.4.1     PROVISION OF BEDDING (PIPES) Provision of bedding material from trench excavations a) Selected granular material     m³/km     -	3.2.2.4	8.3.3.4	Overhaul :				
3.2.4.1     8.2.1     Provision of bedding material from trench excavations       a) Selected granular material     m³     228.00					-		
3.2.4.1     8.2.1     Provision of bedding material from trench excavations       a) Selected granular material     m³     228.00	3.2.4	SABS120	PROVISION OF BEDDING (PIPES)				
3.2.4.2 Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries)	3.2.4.2						
a) Selected granular material m ³ 273.60 b) Selected fill material m ³ 638.40							
TOTAL CARRIED FORWARD	TOTAL (	L CARRIED F	FORWARD		<u>ı                                    </u>		

ITEM	PAYMEN	DESCRIPTION	UNIT	Estimated		AMOUNT
NO.	T REFRES	DESCRIPTION		QTY	RATE	
OTAL I	BROUGHT	FORWARD				
8.2.4.4	8.2.3	Concrete bedding	m³	5.00		
3.2.4.5	8.2.4	Encasing of pipes in Class 19/20 concrete	m³	5.00		
3.2.4.6	8.2.5	Overhaul of material for bedding cradle and selected fill blanket	m³km	0.00		
3.2.5	1200L	PIPEWORK				
	8.2.1	Supply, lay, joint, bed, test and disinfect the following pipes complete with couplings and fittings to the relevant SABS standards including short lengths (all uPVC pipes to comply with DWS1160)				
8.2.5.1		uPVC pipes				
		a) 75 Class 12 b) 75 Class 9	m m	:		
3.2.5.2		HDPE pipes Type IV				
		a) 20 mm class 6 b) 50 mm class 6 c) 75 mm class 10	m m m	60.00 440.00 20.00		
3.2.5.3		GMS pipes (medium duty)				
		a) 15 mm Ø b) 20 mm Ø c) 25 mm Ø	m m m	- - -		
3.2.6		VALVES				
8.2.6.1		Line valve assemblies.				
		Extra over item F.6 for supplying, installing, bedding and testing line valve assemblies as per Drawing complete cutting of pipes and couplings included (all valves to comply with DWS 2510)				
		a) 50 mm b) 75 mm	No. No.	4.00 0.00		
8.2.6.2		Scour valve assemblies				
		Extra over item F.6 for supplying, installing, bedding and testing scour valve assemblies as per Drawing complete. Scour tee, cutting of pipes and couplings included.				
		a) On 50 mm dia main	No.	5.00		
8.2.6.3		Ditto for 40 Ø and smaller pipes as detailed in Drawing for the following diameters				
		a) 25 Ø b) 32 Ø c) 40 Ø	No. No. No.	- - -		
8.2.6.4		Air valve assemblies				
		Extra over item D.6 for supplying, installing and testing air valve assemblies as per Drawing complete				
		a) On 50 mm and 64 mm Ø main	No.	1.00		

ITEM NO.	PAYMEN T	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL E	REFRES	FORWARD		1 1		
3.2.10		FITTINGS FOR HDPE PIPES				
3.2.11		SUNDRIES				
3.2.11.3		Thrust blocks as per typical details on specification Drawing				
		a) Concrete Class 15/19 b) Rough formwork	m³ m²	1.00 1.00		
3.2.14		BOREHOLE DEVELOPMENT				
		Geohydrological Servies				
		Sitting of drilling sites. Alowance to be made for desk study, site assessment, drilling supervision, testing supervision, and reporting.	No	1.00		
		Borehole Drilling				
		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to include inter-borehole moves and de-establishment from site of the drilling batch.	No	1.00		
		Drilling				
		Drilling of 165mm diameter borehole in non-collapsible material.	m	100.00		
		Odex drilling in collapsible material and where ordered by the Geohydrologist of 254mm diameter borehole. Rate to include supply, delivery and installation of at least 6mm sidewall Odex casing.	No	120.00		
		Steel casing (plain), 165 mm (state wall thickness here as 3 mm)	m	35.00		
		Steel casing (slotted), 165 mm (state wall thickness here as 4 mm)	m	0.00		
		Pump testing of borehole.				
		Rate to include the following:installation of pump testing equipment and remove after, calibration testing, 24hr constant testing, recovery measurements, data recording and reporting.	No	1.00		
		Sampling for water quality testing	No	1.00		
		Site finishing				
		Borehole finishing, rate to include borehole disinfection, concrete collar in Grade 20Mpa concrete, normal saintary seal, borehole making. Reporting	No	1.00		
		Complete Geohydrology report signed by a registered personnel	No	1.00		
3.2.15		BOREHOLE REHABILITATION - (PROVISIONAL)				
		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to include inter-borehole moves and de-establishment from site	No	1.00		
		Removal of existing pumphouse	No	1.00		
		Removal of existing pump	No	1.00		
		Positive displacement pump				
		Removal using cable-tool (jumper) drilling rig of columns instalations diameter, 25mm-100mm upto 120m. Rate to include all pipe work and fittings	No	1.00		

ITEM	PAYMEN	DESCRIPTION	UNIT	Estimated		AMOUNT
NO.	T REFRES	DESCRIPTION		QTY	RATE	
OTAL E	BROUGHT	FORWARD				
		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to including inter-borehole moves and de-estalishment from Site, of the given drilling batch	No	1.00		
		Pump testing of borehole.				
		Rate to include the following:installation of pump testing equipment and remove after, calibration testing, 24hr constant testing, recovery measurements, data recording and reporting.	No	1.00		
		Sampling for water quality testing	No	1.00		
		BOREHOLE PUMPS AND APPURTENANCES				
3.2.16		<b>NEW BOREHOLE INSTALLATION</b> Supply and commissioning and testing of New Borehole complete with electric wiring and connection and controls. All units are to be made good and neat in accodance to manufactures and Engineers' specification.				
		Submersible pumpsets and fittings				
		Supply and install new submersible pump - Grundfos or similar Quality. All internals of wet-end shall be 316 stainless steel\brass. Electrical motor will be 316 stainless steel. Complete with corrosion protection. Engineer to approve prior to installation.				
		Pump Installation, Head & Flow fas per borehole test report	No	1.00		
		Electric Motor installation, as per pump size requirements determined in item above.	No	1.00		
		Pump Protection				
		Mechanical pressure switch, PN16, Complete with cabling to panel : Limits between 160m and 80m, WIKA PSM-550 or Equivalent	No	1.00		
		Mechanical flow switch, PN16, Complete with cabling to panel	No	1.00		
		Float Switch for Switching off Pump on Low Level, c/w wiring to panel's liquid level control relay.	No	1.00		
		Electric Motor Control Panel				
		Supply and install control panel with all fittings required to operate pumps and motors efficiently, including 0-20 second delay timer and0-24 hour timer.	No	1.00		
		<b>Pipework</b> Supply and install borehole discharge pipework complete with flow meter, non return and pressure valves on the following pipework.				
		Submersed pipe: Ø 63mm HDPE, Class 12, 7,1mm Wall thickness, SANS 4427, Borehole to Surface	m	110.00		
		Metal Base plate - Double choke	No.	1.00		
		65 NB Schedule 40 pipe discharge Galvanised Steel pipe, Incl Elbows and fittings	m	5.00		
		65 NB Threaded Brass Type Isolation valve, PN10	No.	2.00		

ITEM NO.	PAYMEN T REERES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
FOTAL E	BROUGHT	FORWARD				
		65 NB Flanged Non Return Valve,tilted disc type, PN 10	No.	1.00		
		65 NB Flanged Mechanical flow meter, PN 10	No.	1.00		
		M16 galvanised bolts and nuts	No.	96.00		
		65 NB Gaskets, Incl Consumables	No.	24.00		
		Mechanical Pressure Gauge, Wika (100mm dial and filled with glycerine),with a range from 400 kPa to 1600 kPa, complete with ball isolating valve and piping	No.	1.00		
		T-Pieces and Bushes to mount Pressure gauge, Pressure Switch and Flow Switch <b>Submersible pump steel cage</b>	No.	3.00		
		Supply and install borehole discharge pipework complete as per	No	1.00		
3.2.18		TESTING AND COMMISSIONING				
		Testing and commission borehole installation includibg pumps, motrs, control system and verify discharge and head characteristics	No	1.00		
		Eletricity Supply				
		Supply material and erect a three phase electricity power line to the new borehole	No	1.00		
		Mark-up on item 4.2.1				
		Supply all material and install a 25kVa transformer	No	1.00		
		WATER TREATMENT (PROVISIONAL)				
		10kl PVC pre-treatment tank	No.	1		
		Supply, installation, connections, testing and handing over in working order of a 20m ³ /hr package water treatment plant	Prov. Sum	1	350,000.00	R 350,000.00
		Overheads, charges and profit.	%	350,000.00		
	CARRIED F					

TEM	PAYMEN	DECODIDITION	UNIT	Estimated		AMOUNT
NO.	T REFRES	DESCRIPTION		QTY	RATE	
OTAL E		FORWARD				R
		WATER STORAGE				
		Water Tanks				
		5 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter galvanized steel wire (bloudraad), 2 Strands/Anchor.	No	1		
		10 000 Litre polyethylene water tank (JoJo make or equiva-lent). Tank complete with 50 x 40 DN nylon bushes sealed into all inlets and outlets. Include for anchorage onto tank stand platform with 4mm diameter galvanized steel wire (bloudraad), 2 Strands/Anchor.	No	3		
			110	Ŭ		
		Elevated 4.5m Steel Stand Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and re-painting	Sum	4		
		Elevated 4.5m Steel Stand Refurbishment (Provisional) Refurbish existing steel stand - including repainintg, rust protection and replacing corroded purlins	P.Sum	1	10,000.00	R 10,000.0
		Outlet and overflow Pipe Schedule for items below:	Sum	4		
		a) 1½" to 50mm MALE ELBOW (Plasson)				
		b) 50mm Ø HDPE PIPE CLASS 10	m	4	Included	
		c) 50mm Ø PLASSON ELBOW	No	4	Included	
		d) 50mm Ø MALE ADAPTER (Plasson)	No	4	Included	
		e) 50GMS bend F/F	No	4	Included	
		f) 50mm Ø x 3000 GMS STAND PIPE	No	4	Included	
		g) 50mm Ø BRASS BALL VALVE (COBRA)	No	4	Included	
		h) 50mm Ø GMS NIPPLE	No	4	Included	
		i) 50mm Ø GMS UNION	No	4	Included	
		k) 50mm Ø GMS PIPE 6000 LONG	No	4	Included	
		I) 50mm Ø GMS ELBOW F/F	No	4	Included	
		m) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)	No	4	Included	
		n) 50mm Ø GMS STAND PIPE 700 LONG	No	4	Included	
		o) 50mm Ø GMS SOCKET	No	4	Included	
		p) 50mm Ø GMS STAND PIPE 150mm	No	4	Included	

ITEM NO.	PAYMEN T	DESCRIPTION	UNIT	Estimated QTY	DATE	AMOUNT
ΓΟΤΑΙ Ε		FORWARD			RATE	
		Inlet Pipe Schedule (From Pump)	Sum	4		
		a) 1½ "TO 40mm MALE ELBOW (Plasson)	No	4	Included	
		b) 40mm Ø HDPE PIPE CLASS 10	m	4	Included	
		c) 40mm Ø PLASSON ELBOW	No	4	Included	
		d) 40mm Ø MALE ADAPTER (Plasson)	No	4	Included	
		k) 40mm Ø GMS PIPE 6000 LONG	No	4	Included	
		I) 40mm Ø GMS ELBOW F/F	No	4	Included	
		m) 40mm Ø GMS STAND PIPE 300 LONG (400 long in	No	4	Included	
		sandy conditions)				
		n) 40mm Ø GMS STAND PIPE 700 LONG	No	4	Included	
		o) 40mm Ø Galvanised socket	No	4	Included	
		p) 40mm Ø Galvanised standpipe 150 mm long	No	4	Included	
3.2.7		DRAW-OFFS				
3.2.7.1		Complete supply, install and test single rudimentary domestic drawoff standard type as detailed in Drawing with :				
		i) 2 Taps	No.	3.00		
		ii) 4 Taps	No.	0.00		
3.2.7.3		Complete supply, install and test garden standpipe as detailed in Drawing	No.	1.00		
		DECOMMISSIONING OF OLD SERVICES				
		Removal of old water supply equipment including old tanks, tank				
		stands, and pumps etc.	No	2		
OT 11		O SUMMARY				

ltem	Description	Unit	Qty	Rate	Amount
	SCHEDULE 5 : EXTERNAL SEWER RETICULATION				
4.1	EARTHWORKS (PIPE TRENCHES)				
4.1.1	Excavation				
	Excavate in all material for trenches, backfill, compact and dispose of surplus material for pipes over 25mm dia up to 400mm dia for depths:				
	a) Exceeding 0,0m but not more than 1,0m	m³	135.00		
	b) Exceeding 1,0m but not exceeding 2.0m	m³	6.75		
4.2	Extra-over all excavations in pickable material irrespective of depth. for excavating in:-				
4.2.1	Intermediate excavation	m³	27.00		
4.2.2	Hard rock excavation	m³	20.25		
4.3	Excavation Ancilliaries				
4.3.1	Excavate and dispose of unsuitable material from trench bottom (provisional)	m³	6.75		
4.3.2	Make deficiency in backfill material (Provisional)				
	a) from other necessary excavation on Site	m³	6.75		
	b) by importation designated borrow pits	m³	6.75		
	c) Compaction in platform reserves	m³	6.75		
4.4	Existing services				
	a) Services that adjoin a trench	m	12.00		
	b) Services that intersect a trench	No	5.00		
mount	Carried Forward				

#### SCHEDULE 5: EXTERNAL SEWER RETICULATION

Item	Description	Unit	Qty	Rate	Amount
Amount	Brought Forward				0.00
4.5	BEDDING (PIPES)				
4.5.1	Provision of Bedding from Trench Excavation				
	a) Selected granular material	m³	20.25		
	b) Selected fill material	m³	56.70		
4.5.2	Supply only of Bedding by Importation From Commercial Sources (provisional)				
	a) Selected granular material	m³	20.25		
	b) Selected fill material	m³	56.70		
4.6	SEWERS PIPELINES				
4.6.1	Supply, Lay, Joint and Bed PVC Heavy Duty Class 34 solid wall pipe (conforming to SABS 891), complete with fittings				
	a) 110mm dia	m	135.00		
	b) 150mm diameter	m	-		
	c) 225mm diameter	m	-		
	d) 375mm diameter	m	-		
4.6.2	Extra over items 11.3.1 for specials				
	a) 110mm Access bends	No	12.00		
	b) 110mm Access junctions	No	6.00		
	c) 160mm Bends	No			
	d) 160mm Access bends	No	-		
	e) 160mm Access Junctions	No			

ltem	Description	Unit	Qty	Rate	Amount
Amount	Brought Forward				
4.7	Sundries				
4.7.1	Breaking into and connecting into existing manhole	No	6.00		
4.8	MANHOLES				
4.8.1	Supply and install manholes & slabs (SABS 1294)				
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 750mm and not exceeding 1m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	1.00		
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 1000mm and not exceeding 1250m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	1.00		
4.8.1.1	Precast concrete manholes 1200mm diameter, exceeding 1250mm and not exceeding 1500m deep, complete with precast concrete heavy duty cover and frame TYPE 4A	No	2.00		
4.9	PIPE ANCILLARIES				
4.9.1	Encasing around pipe				
4.9.1.1 4.9.1.2	Anchor blocks in strength concrete 25Mpa /19mm including all formwork, reinforcement, reinforcement, etc. Anchor block size 600 x 600mm	No	10.00		
4.10	EXISTING SERVICES				
4.10.1	Connection to existing sewer				
4.10.1.1	200mm Diameter pipe to existing manhole	No	1.00		
4.10.2	Raising or lowering of existing manholes	No	1.00		
4.10.2.1	Remove cover and frame then lower the manhole to required level, complete with all necessary accessories.	No	1.00		
Amount	I Carried to Forward				

ltem	Description	Unit	Qty	Rate	Amount
Amount	Brought Forward		-	-	0.00
4.11	SEPTIC TANK				
4.11.1	Septic tank:				
	Excavate in soft material exceeding 2m deep.	m³	73.017		
	Extra over septic tank excavations for carting away surplus material from excavations or stock piles to a dumping site to be located by the Contractor.	m³	10.95		
	Risk of collapse to sides septic tank excavations not exceeding 1,5m deep.	m²	49.09		
	Earthfilling obtained from the excavations or stock piles compacted to 93% in septic tank.	m³	10.95		
	Modified AASHTO density tests	No	2		
	Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	Item	1.5		
	25 MPa Reinforced concrete top slab.	m³	5.48		
	25 MPa Reinforced concrete base.	m³	5.48		
	Backfilling to sides of septic tank.	M³	7.30		
	Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.	m²	40		
	Rough formwork to soffit of slab.	m²	36.51		
	Plaster to vertical surfaces.	m²	49.09		
	One brick wall in commons including wire ties for septic tank walls.	m²	6.588		
	Two brick wall in commons including wire ties for septic tank walls.	m²	49.09		
	Lintels as permanent shatters	m	73.017		
	600 x 600mm Cast iron manhole covers	No	2		
	Pipework				
	Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	M³	35		
	Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.	No	2		
	Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.	No	2		
	Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Employer. (All defective work to be replaced at the Contractor's expense).	Item	1		
	160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1,00m deep with 500 x 500mm washed 25mm stone casing wrapped in u24 non-woven, spun-bonded, punched continuous polyester fabric, including fill, ram, carting away, etc.				
		m	35		

Item	Description	Unit	Qty	Rate	Amount
Amount	Brought Forward				
	<b>Soakaway:</b> Excavate in earth for and build French drain size as indicated on drawings, fill in with 20mm crushed stone to within 0,2m of top, enclose stone with geofabric u 24 and fill in with earth filling.	m	35		
	Extra over soakaway excavations for carting away surplus material from excavations to a dumping site to be located by the Contractor.	m³	5		
	Risk of collapse to sides of soakaway excavations exceeding 1,5m and not exc. 2m deep.	m²	28		
	One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape laid over soak away	m²	35		
	0,6mm IBR sheeting laid across walls.	m²	35		
	Lintels laid above soakaway	m	35		
Amount	Carried to Final Summary			I	

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
	SABS 1200 GB	SCHEDULE 6 : WALKWAYS AND CARPORTS				
5.1		FORMWORK				
5.1.1	8.2.1(b)	Normal formwork to				
		c) Column Foundations	m³	189.44		
5.2		REINFORCEMENT				
5.2.1	8.2.4	Mild steel bars of nominal diameter				
5.2.1.1		12mm	t	7.58		
5.2.2		High-tensile steel bars of nominal diameter				
5.2.2.1		16mm	t	11.37		
5.2.3		High-tensile welded mesh of nominal mass				
5.2.3.1		a) 3.95 kɑ/m²	m²	0.00		
5.3		CONCRETE				
5.3.1	8.2.5	Strength concrete, Grade 25MPa/19 mm in Column Footings	m³	18.94		
5.3.2		Blinding layer, Grade 10/19,0 mm	m³	2.37		
5.3.4	8.2.6	Unformed surface finishes				
5.3.4.1		Wood-float to all floors except	m²	47.36		
	SABS 1200 AH	SECTION : STRUCTURAL STEELWORK				
5.5	8.3.1	PRELIMINARY AND GENERAL				
5.5.1	8.3.1	SUPPLY AND FABRICATION				
5.5.1.1	8.3.1.1	Preparation of shop detail drawings	Sum	1.00		
5.5.2	8.3.1.2	Supply, delivery and installation of steelwork (see Drawings) complete with all the necessary cleats, brackets. aussets. packs. bolts & nuts etc. as follows :				
		a) Using steel to SABS 1431 Grade 350WA for walkways				
5.5.2.1		Simple Square Tubing - columns (welded)	t	3.32		
5.5.2.2		Square Tubing Beams - beams (welded)	t	1.15		
5.5.2.3		Square Tubing purlins	t	3.38		
5.5.2.4		Unequal Angle rafter bracing	t	3.92		
5.5.2.5		200 x 200 x 6mm Base Plates	No.	188.00		
		Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	564.00		
		Sika Non-shrink grout or Similar	m³	1.50		
		M12 Holding Down Bolta - Grade 8.8 hexhead bolts	No.	752.00		
		b) Using steel to SABS 1431 Grade 350WA for assembly				
		Simple Square Tubing - columns (welded)	t	1.75		
		Square Tubing Beams - beams (welded)	t	1.52		
		Square Tubing purlins	t	1.74		
	l	Unequal Angle rafter bracing	t	1.78		

200 x 200 x 6mm Base Plates       No.       86.00         Fasteners for angles hexhead bolts with washers - Grade       No.       258.00         Sika Non-shrink grout or Similar       m ³ 0.69         M12 Holding Down Bolta - Grade 8.8 hexhead bolts       No.       344.00	
Sika Non-shrink grout or Similar m ³ 0.69	
M12 Holding Down Bolta - Grade 8.8 beybead bolts No. 344.00	
c) Using steel to SABS 1431 Grade 350WA for carports	
Simple Square Tubing - columns (welded) t 0.81	
Square Tubing Beams - beams (welded) t 0.50	
Square Tubing purlins t 3.21	
Unequal Angle rafter bracing t 2.45	
Steel Fascia beams t 1.54	
200 x 200 x 6mm Base Plates No. 22.00	
Fasteners for angles hexhead bolts with washers - Grade 8.8No.66.00	
Sika Non-shrink grout or Similar m ³ 0.18	
M12 Holding Down Bolta - Grade 8.8 hexhead bolts No. 88.00	
TOTAL CARRIED FORWARD	

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	0.00	AMOUNT
	BROUGHT FO	RWARD				
5.5.5	8.3.5	SITE WELDING				
5.5.5.1		Site weld items inclusive	m	88.80		
		CLADDING AND SHEETING				
		ROOF CLADDING				
56		Supply, deliver to Site, erect and fix green chromedeck sheeting/cladding etc, including the supply of all necessary fasteners etc. and cutting and notching: (See Drawings)	m²	1,173.20		
500		Approved troughed profile-sheeting to roofs, 0,6mm				
5.6.2	8.2.3	Ridge flashing 450-600mm girth x 1mm - 3 bends, baked enamel external finish	m	32.00		
	8.3.1	GUTTERS AND RAINWATER PIPES				
		Galvanized mild steel				
		3mm Thick box gutter, 100mm girth 6 times bent along length to detail, including straps, stiffeners,etc as per drawing	m	364.00		
		Extra for stopped end	no	6.00		
		Extra for 150mm diameter outlet	no	52.50		
		1mm Thick 150mm diameter rainwater pipe including straps, fixed to steel columns	m	136.50		
		Extra for 45° bend	no	52.50		
	SABS 1200 HC	CORROSION PROTECTION OF STRUCTURAL STEELWORK				
		Steelwork included under Items 1 to 7inclusive, of Section 1200H (Supply, Fabrication and Erection)	t	18.58		
5.7	8.2.1	SURFACE DRESSING AND REPAIRS AT PLACE OF FABRICATION				
		Remove slag and weld spatter, grind welds to smooth profile, radius sharp edges as specified.	t	18.58		
5.7.1	8.2.3	SURFACE PREPARATION AND COATING APPLICATION				
5.7.1.1		Shopwork. Prepare surface and apply coat(s) as specified.	t	18.58		
5.7.2		Sitework. Clean down surfaces, touch up damaged shop coats and apply finish coats as specified	t	18.58		
5.7.2.1		Cold-formed sections				
		Tonnage shall be gross quantities inclusive of unpainted steel (e.g. embedded portions and underside of baseplate,etc.		10.50		
			t	18.58		
TOTAL	CARRIED TO	SUMMARY				

<b>DEPARTMENT OF EDUCATION : LIMPOPO</b>
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#### STORM DAMAGED SCHOOL: MOKHARI SECONDARY SCHOOL

#### PRELIMINARY COSTS ESTIMATE FOR CIVIL ENGINEERINGS SERVICES

#### SUMMARY OF BILL OF QUANTITIES

SCHEDULE 1: EARTHWORKS	
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SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

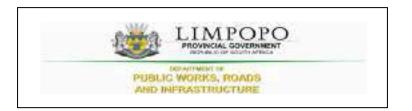
SCHEDULE 3: STEEL PALISADE FENCE

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

SCHEDULE 5:EXTERNAL SEWER RETICULATION

SCHEDULE 6:COVERED PARKING

I		
	TENDER (CONTRACT) SUM (CIVIL AND STRUCTURAL WORKS)	0.00



# PART C3.2: OHS SPECIFICATIONS



# PART C4 SITE INFORMATION

## PART C3 SCOPE OF WORKS

#### SCOPE OF WORKS

#### BID NUMBER: LDPWRI-B/20290

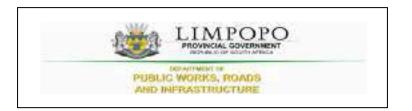
#### APPOINTMENT OF A CONTRACTOR FOR REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL PALISADEFENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG 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



# PART C4 SITE INFORMATION

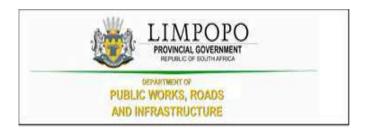
#### SITE INFORMATION

#### BID NUMBER: LDPWRI-B/20290

REFURBISHMENT AND ADDITIONS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT, LIMPOPO PROVINCE.

#### **CO-ORDINDATES**

24°31'22.41" S 28°43'49.01' E



# C4.1 DRAWINGS





LOCALITY MAP

X 2713300

TA	BLE 2A:	DEMOLITION	WORKS			1
NO. 01	Building Us Shack Block	-			(sqm)	Quantity
02 03						
04						
05 06						
07						
TA NO.	BLE 2B:	RENOVATIO	N/REFURBRI	SHMEN		<b>RKS</b> Quantity
01	Water-borne 1	-			(sqm) 35	16 seats
02 03	4 Classroom Nutrition Bloc	Block (A,B & C) k (D)			334 185	3 1
04 05						
06						
07 08						
ТА	BLE 2C	NEW WORK	S			
NO.	Building Us	age			(sqm)	Quantity
01 02	Medium Adm 5 Classroom	inistration Block (G) Block (E)			325 500	1
03 04	5 Classroom	Block (F) toilets Block (M)			500	1 16 seats
05	Guard house	(J)				16 seats
07	New parking 2	20 bays (10 covered) y area			200	20
08	New palisade	-				624M
1A 01		FUTURE WO	RKS		404	
02	Multi-purpose	. ,			134 220	1
03 04	Life Science L				255 255	1
05 06	5 Classroom Sports Groun				500	1
ΤA	BLE 2E:	CLASSROOM	I SUMMARY			
	embly Area					440M ²
Tota	l number of cla	ssrooms				22
		E 01: SUMMARY		APITAL		
	E 1A: Grade	e Enrolment Figures F s:	or:			
	GRADES	BOYS	GIRLS	тоти	AL.	
TOT						
	AL PUPILS CHERS	280 04	343 04	442 08		
LE	GEND					
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	นยาท	ed the bulk p	Sower Suppl	y pi 110	зорпу	
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мво	ι	DESCRIPTIC	DN			
D	16kVA Dec	licated transformer with a	n associated Meter Box			
	25mm ² PV	C Cu Cable				
		C Cu Cable				
_	-	C Cu Cable				
	Kiosk					

#### **GENERAL DRAWING NOTES**

1) RKMANSHIP TO COMPLY WITH STANDARD
 SPECIFICATION OF MATERIALS AND METHODS TO BE
 USED - sabs 0400
 2) IIGHT SWITCH IN DISABLED TOILET TO BE AT 1200MM

ABOVE FFL 3) IF STEP OVER 900MM BUILD IN BALUSTRADE 4) GULLEY POSITIONS TO BE DETRMINED AS PER SITE

PRESCRIBED OVERALL DRAINAGE DESIGN
5) 2 X COATS SEALANT O ALL EXPOSED TRUSSES (SAND OFF ALL sabs & OTHER MARKINGS)
6) 50MM MINERAL WOOL INSULATION TO BE INSTALLED

WHERE THERE ARE CEILINGS. BUBBLE PLASTIC INSULATION WITH FALL BACKING TO BE INSTALLED WITH WIRE SUPPORTS IN ALL AREAS THAT DO NOT HAVE CEILINGS

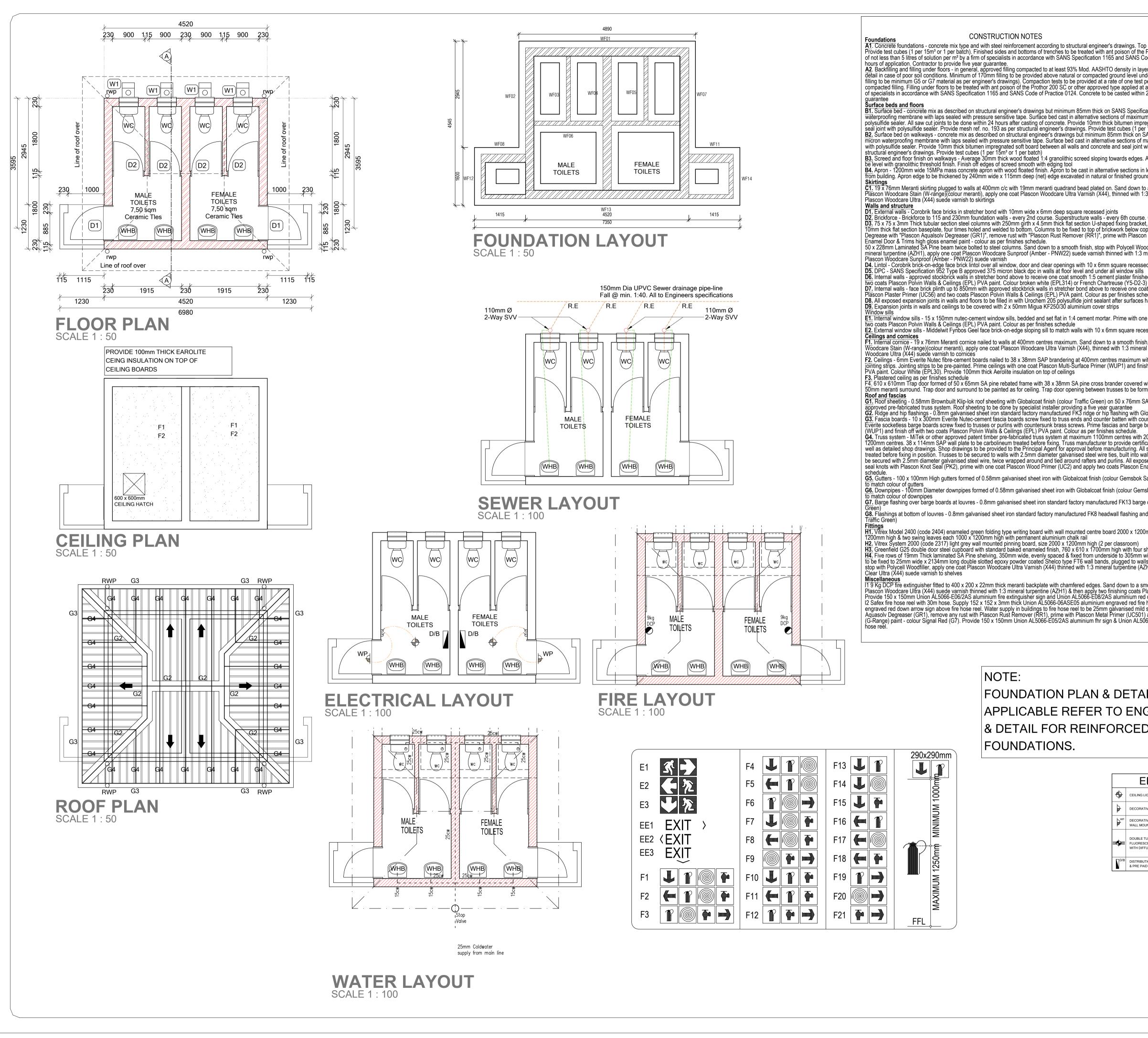
7) WEST FACING FACADES TO HAVE STANDARDISED ALUMINIUM LOUVRES FROM BELOW EAVES TO DROP OF 1200MM

8) TRUSSES TO BE DESIGNED IN ACCORDANCE WITH SABS 0400 & APPROVED BY PROJECT ENGINEER

# ISSUED FOR TENDER

	SICNA	TUDE		
		1	TABLE:	DATE.
DISCIPL	INE:	SIGNA	TURE:	DATE:
CLIENT:				
ROADS/STO				
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A0 2020_67-SDP-001



FOUNDATION PLAN & DETA APPLICABLE REFER TO EN & DETAIL FOR REINFORCED

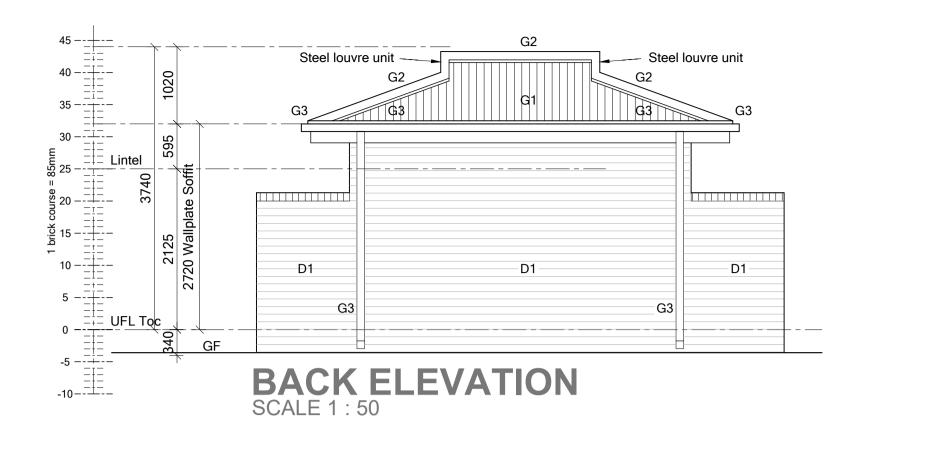
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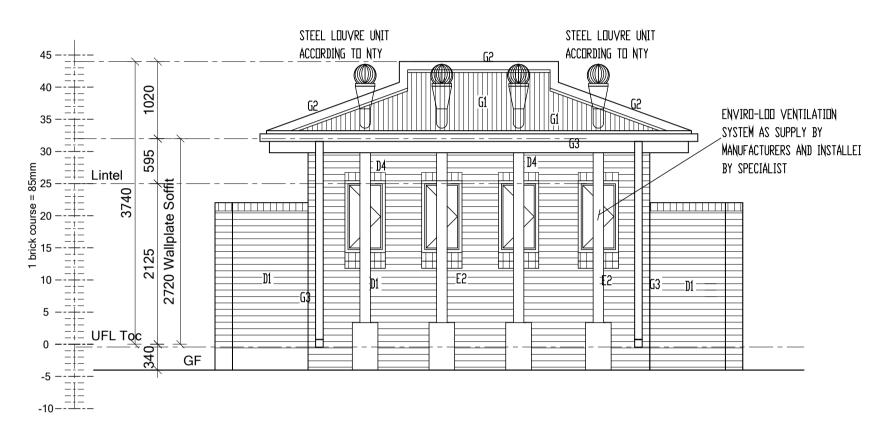
	NOTES :
p of strip footings to be 340mm minimum below N.G.L. Prothor 200 SC or other approved type applied at a rate	<ol> <li>Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400</li> <li>Light Switch in Disabled toilet to be at 1200 mm above FFL</li> <li>If Step over 900 mm Build in Balustrade</li> <li>Gulley positions to be determined as per site prescribed overall drainage design</li> </ol>
ode of Practice 0124. Concrete to be casted within 24 ers of maximum 150mm - refer to engineer's drawings for der floors. All filling to be approved by engineer (imported per 125m ² filling area under floors per each layer of 150mm a rate of not less than 5 litres of solution per m ² by a firm	<ul> <li>5) 2x coats sealant on all exposed trusses (sand off all SABS &amp; other markings)</li> <li>6) 50 mm mineral wool insulation to be installed where there are ceilings. Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings</li> <li>7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm</li> </ul>
24 hours of application. Contractor to provide five year	8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers
n 20m ² with saw cut joints with joints filled up with gnated soft board between all walls and concrete and 15m ³ or 1 per batch) ANS Specification 952 Type C approved USB Green 250 aximum 20m ² with expansion joints with joints filled up ith polysulfide sealer. Provide mesh ref. no. 193 as per	
t all external door openings external surface beds must engths of maximum 3m and to have a 1:100 fall away	
d level	
mineral turpentine (AZH1) and apply two finishing coats	
Over openings formed in brickwork as per table below , 200mm long, twice holed and welded to top, 200 x 200 x bings with four M10 x 75mm masonry anchor bolts. Metal Primer (UC501) and apply two coats Plascon dfiller, provide one coat raw linseed oil thinned with 1:3 hineral turpentine (AZH1) and apply two finishing coats	
d joints	
ed off with one coat Plascon Plaster Primer (UC56) and a sper Principal Agent t smooth 1:5 cement plaster finished off with one coat edule. have been primed with Urochem 614 primer	
e coat Plascon Multi-surface Primer (WUP1) and apply	
n, stop with Polycell Woodfiller, stain with Plascon I turpentine (AZH1) and apply two finishing coats Plascon ith galvanised clout nails. Provide H-profile galvanised h off with two coats Plascon Polvin Walls & Ceilings (EPL)	
vith ceiling board and fitted flush in opening. Provide 18 x ned with 38 x 114mm SA pine bearers, nailed to trusses	
AP purlins at maximum 1200mm centres on patent and	ISSUED FOR TENDER SIGNATURE TABLE
obalcoat finish (colour Traffic Green) Intersunk brass screws. Barge boards - 200 x 80mm Ioards with one coat Plascon Multi-Surface Primer	DISCIPLINE SIGNATURE DATE
0 degrees pitch. 50 x 76mm SAP purlins at maximum ate and guarantee for design and erection of trusses as sections in contact with wet trades to be carbolineum	PLAN EXAMINER       FIRE CONTROL
Is minimum 6 courses. Purlins nailed to trusses must also ed parts of trusses, purlins, etc. to be sanded smooth, amel Doors & Trims paint. Colour as per finishes	ENVIRONMENTAL OFFICER       ROADS / STORMWATER
nd). All brackets, etc. to be pre-coated with Globalcoat	WATER AND SANITATION ENVIRONMENTAL OFFICER
ook Sand). All holderbats, brackets, etc. to be pre-coated or gable flashing with Globalcoat finish (colour Traffic	
FK7 counter flashing with Globalcoat finish (Colour	
nm high, two wall mounted side boards each 1000 x	REV NO DATE : DESCRIPTION : REVISIONS
nelves (2 per classroom) ide Shelco epoxy powder coated steel brackets. Brackets s at maximum 600mm c/c. Sand down to a smooth finish, 11) then apply two finishing coats Plascon Woodcare	SIZE ON ORIGINAL DRAWING 100 mm
nooth finish, stop with Polycell Woodfiller, apply one coat lascon Woodcare Ultra (X44) suede varnish to back plate. down arrow sign above fire extinguisher hose reel sign & Union Al5066-06ASE08 aluminium steel Degraase exposed parts of pipes with Plascon	PROVINCIAL GOVERNMENT
steel. Degrease exposed parts of pipes with Plascon and apply two coats Plascon Enamel Doors & trims 66-E08/2AS aluminium red down arrow sign above fire	REPUBLIC OF SOUTH AFRICA
	DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE
	INSTITUTION
	MOKHARI SECONDARY SCHOOL
GINEERS DRAWINGS	906121051 SERVICE
CONCILLE	NEW BUILDINGS & ALTERATIONS
	DOCUMENTATION
LECTRICAL LEGEND	DISCIPLINE PROJECT STAGE
SHT FITTING 15 AMP DOUBLE PLUG BUILT IN 340mm ABOVE FFL 15 AMP DOUBLE PLUG POINT	WORK DESCRIPTION - SUB DIVISION 4 CUBICLE WATERBORNE ABLUTION BLOCK
/E WALL LIGHT FITTING BUILT IN 1000mm ABOVE FFL	DRAWING DESCRIPTION FLOOR, ELECTRICAL, SEWER PLAN
BE FLUSH FITTING	FILE No.
40 Amp ISOLATOR FOR A/C UNIT 40 A/C MOUNTED 500mm BELOW ROOFS EAVE	DESIGN DRAWN SCALE 1: 100 CHECKED
N BOARD IETERBOX	RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE PR NUMBER
	2023.06.20 Y.VAHED 7812 DRAWING CO-ORDINATED
	CONSULTANT :
	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa
	Tel: +27 15 065 0645, Fax: +27 11 475 8364, Ernail: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za
	CONTRACTOR :
	CADD AUTO CAD FILE NAME
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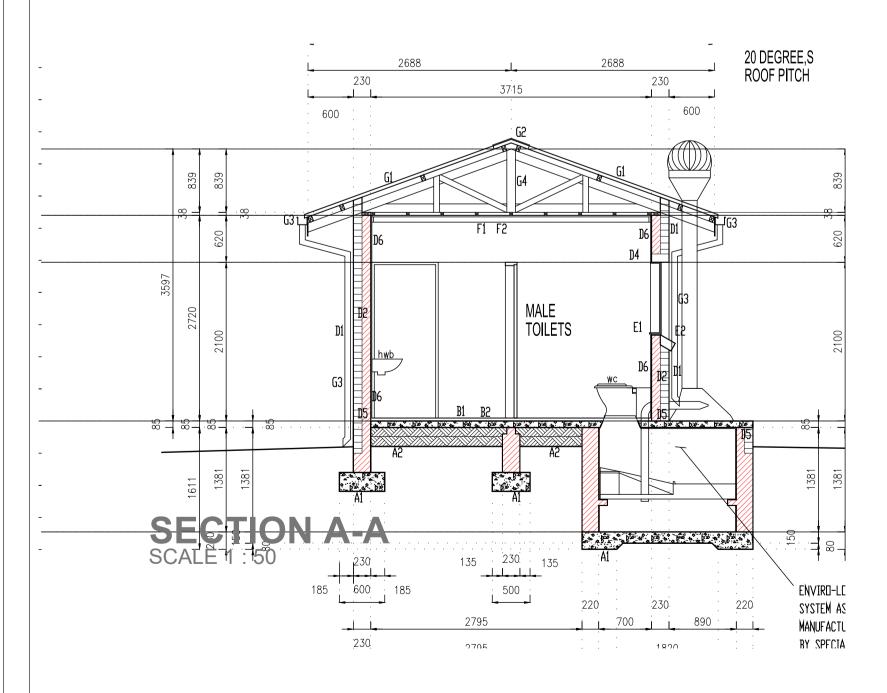
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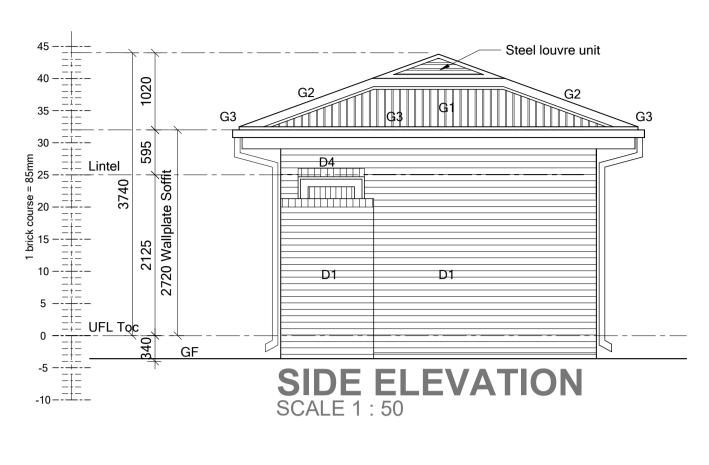
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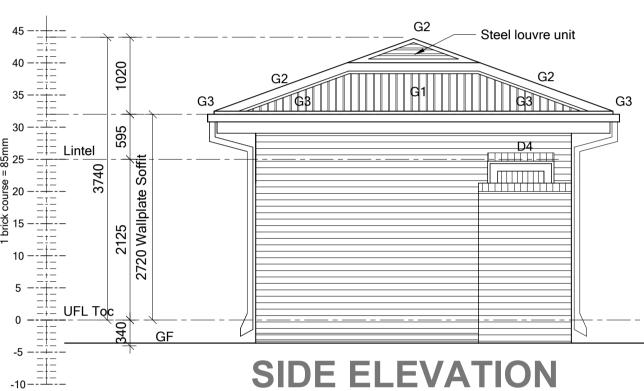




**FRONT ELEVATION** SCALE 1:50







# SCALE 1:50

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL CONSTRUCTION NOTES If Step over 900 mm Build in Balustrade ) Gulley positions to be determined as per site prescribed overall drainage 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other 6) 50 mm mineral wool insulation to be installed where there are ceilings Bubble plastic insulation with foil backing to be installed with wire supports all areas that do not have ceilings 7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE CLIENT PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE : DESCRIPTION REVISIONS SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION DOCUMENTATION PROJECT STAGE DISCIPLINE ARCHITECTURAL 4 WORK DESCRIPTION - SUB DIVISION **4 CUBICLE WATERBORNE ABLUTION BLOCK** DRAWING DESCRIPTION SECTION AND ELEVATION FILE No. ITEM No. DESIGN DRAWN SCALE 1: 100 CHECKED RESPONSIBLE PROFESSIONA PR NUMBER 41.400 7812 2023.06.20 Y.VAHED DRAWING CO-ORDINATED CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Emaîl: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER

oundation /indow sills o match colour of downpipes

NOTES :

2020_67-4WAB-101

1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 29. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips Noodcare Ultra (X44) suede varnish to cornices -3. Plastered ceiling as per finishes schedule Roof and fascias 33. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Barge boards - 200 x 80mm 37. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Traffic Green)

Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee. A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee Surface beds and floors B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) **B2.** Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide test cubes (1 per 15m³ or 1 per batch) **B2.** Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) **P3.** Surface bed floar fiber floar floar cuber of the search and the search engineer's drawing address at all external door expansion external surface bed mutting and the search engineer's drawing address at all external door expansion external surface bed mutting and the search engineer's drawing address at a search engineer's drawing address at all external door expansion external search ending address at all external door expansion external engineer's drawing address at a search ending address at all external door expansion external engineer's drawing address at a search ending address B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings 

 Walls and structure

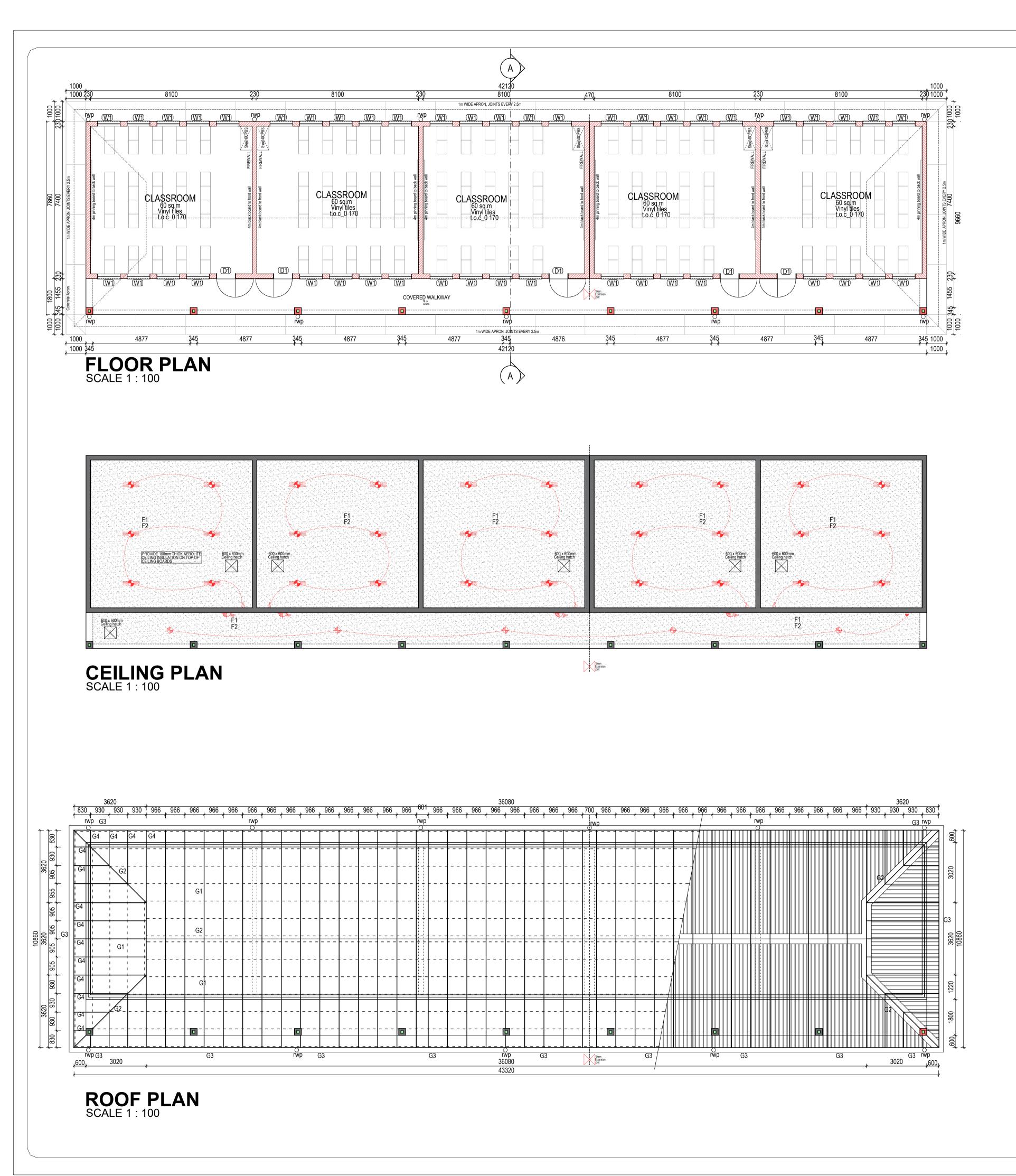
 D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints

 D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

 D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts.

 Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon

 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed joints D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills **D6.** Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.
 D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polyin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed joints **Ceilings and cornices** F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon **F2.** Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green) G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green) Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. **G4.** Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in approval before manufacturing. Truss manufacturing approval before manufacturing approval before manufacturing approval before fixing in approvale before fixing in approval before fixing in ap treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated **G8.** Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom) Here to be fixed to 25 mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher 12 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire



CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement accord strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m of trenches to be treated with ant poison of the Prothor 200 SC or other approved of solution per m² by a firm of specialists in accordance with SANS Specification 1 Concrete to be casted within 24 hours of application. Contractor to provide five ye A2. Backfilling and filling under floors - in general, approved filling compacted to a of maximum 150mm - refer to engineer's drawings for detail in case of poor soil co provided above natural or compacted ground level under floors. All filling to be ap minimum G5 or G7 material as per engineer's drawings). Compaction tests to be area under floors per each layer of 150mm compacted filling. Filling under floors t 200 SC or other approved type applied at a rate of not less than 5 litres of solution with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings bu 952 Type C approved USB Green 250 micron waterproofing membrane with laps bed cast in alternative sections of maximum 20m² with saw cut joints with joints fi joints to be done within 24 hours after casting of concrete. Provide 10mm thick bi walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 19 Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer's Specification 952 Type C approved USB Green 250 micron waterproofing membritape. Surface bed cast in alternative sections of maximum 20m² with expansion jour sealer. Provide 10mm thick bitumen impregnated soft board between all walls and sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide to B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 g all external door openings external surface beds must be level with granolithic throws mooth with edging tool

<u>B4.</u> Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. *J* lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge deep (net) edge excavated in natural or finished ground level Skirtings

<u>C1.</u> 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meran smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (V Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd cours Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75 "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel pa 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (A Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZ Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clea

joints <u>D5.</u> DPC - SANS Specification 952 Type B approved 375 micron black dpc in wa D6. Internal walls - approved stockbrick walls in stretcher bond above to receive of

<u>D6.</u> Internal walls - approved stockbrick walls in stretcher bond above to receive a off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin W broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent <u>D7.</u> Internal walls - face brick plinth up to 850mm with approved stockbrick walls i smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC6 Ceilings (EPL) PVA paint. Colour as per finishes schedule.

<u>D8.</u> All exposed expansion joints in walls and floors to be filled in with Urochem 2 been primed with Urochem 614 primer
 <u>D9.</u> Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF

Window sills <u>E1.</u> Internal window sills - 15 x 150mm nutec-cement window sills, bedded and se coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin W

per finishes schedule <u>E2.</u> External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill recessed joints

Ceilings and cornices

<u>F1.</u> Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centre stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(color Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two fin suede varnish to cornices

<u>F2.</u> Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

 $\overline{F4.}$  610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Tr ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pin Roof and fascias

<u>G1.</u> Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat fini purlins at maximum 1200mm centres on patent and approved pre-fabricated trust specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory man

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge countersunk brass screws. Prime fascias and barge boards with one coat Plasco with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fin G4. Truss system - MiTek or other approved patent timber pre-fabricated truss sy degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114m before fixing. Truss manufacturer to provide certificate and guarantee for design shop drawings. Shop drawings to be provided to the Principal Agent for approval with wet trades to be carbolineum treated before fixing in position. Trusses to be galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to tru diameter galvanised steel wire, twice wrapped around and tied around rafters an etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with o apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes sch G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutte G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised she Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipe G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron a

gable flashing with Globalcoat finish (colour Traffic Green) <u>G8.</u> Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factor FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

<u>Fittings</u> <u>H1.</u> Vitrex Model 2400 (code 2404) enameled green folding type writing board wit high, two wall mounted side boards each 1000 x 1200mm high & two swing leave aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size H3. Greenfield G25 double door steel cupboard with standard baked enameled fi shelves (2 per classroom)

<u>H4.</u> Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly s Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sa Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1: finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

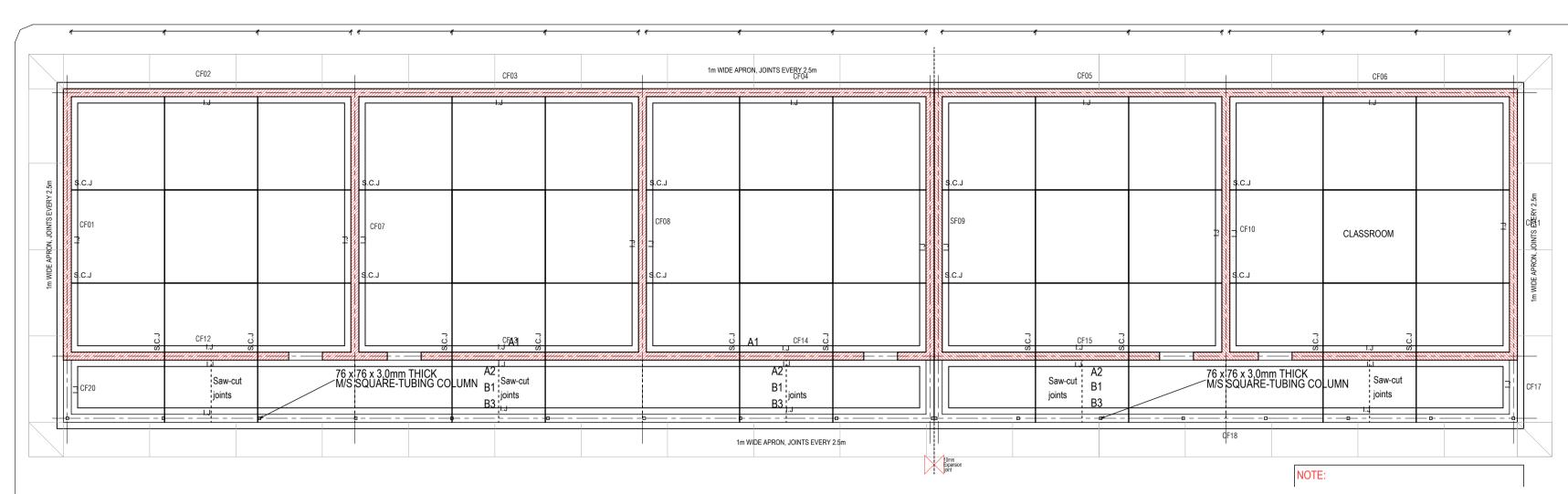
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ul mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ul 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Unior sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL50 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sig buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed p Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). F aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign about the sis sign about the sis sign about the sis sis sign about

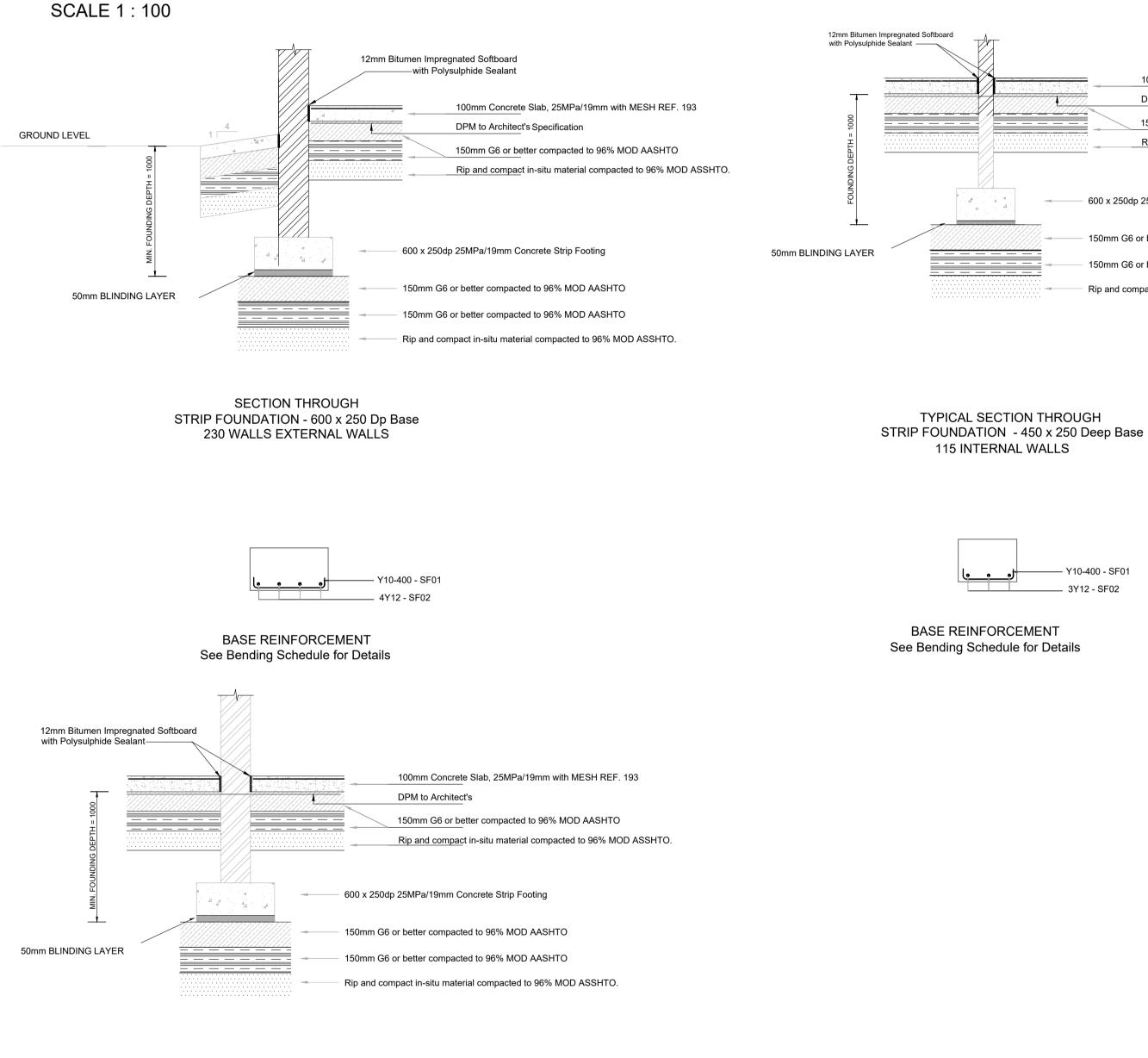
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rding to structural engineer's drawings. Top of n ³ or 1 per batch). Finished sides and bottoms d type applied at a rate of not less than 5 litres 1165 and SANS Code of Practice 0124. rear guarantee. at least 93% Mod. AASHTO density in layers conditions. Minimum of 170mm filling to be pproved by engineer (imported filling to be e provided at a rate of one test per 125m ² filling to be treated with ant poison of the Prothor on per m ² by a firm of specialists in accordance e casted within 24 hours of application. ut minimum 85mm thick on SANS Specification s sealed with pressure sensitive tape. Surface filled up with polysulfide sealer. All saw cut bitumen impregnated soft board between all 93 as per structural engineer's drawings. r's drawings but minimum 85mm thick on SANS brane with laps sealed with pressure sensitive joints with joints filled up with polysulfide test cubes (1 per 15m ³ or 1 per batch) granolithic screed sloping towards edges. At reshold finish. Finish off edges of screed	<ol> <li>Workmanship to com methods to be used - S</li> <li>Light Switch in Disable</li> <li>If Step over 900 mm</li> <li>Gulley positions to be design</li> <li>2 x coats sealant on markings</li> <li>50 mm mineral wool is</li> <li>Bubble plastic insulation all areas that do not have 7) West Facing Facades eaves to drop of 1200 m 8) Trusses to be designe Project Engineers</li> </ol>	ABS 0400 ed toilet to be at Build in Balustrade e determined as p all exposed trusse insulation to be in: with foil backing ve ceilings to have standard nm	per site prescribed of es (sand off all SA stalled where there to be installed with lised aluminium lou	overall drainage BS & other are ceilings wire supports in uvres from below
nti quadrand bead plated on. Sand down to a W-range)(colour meranti), apply one coat I1) and apply two finishing coats Plascon m deep square recessed joints se. Superstructure walls - every 6th course. m thick flat section U-shaped fixing bracket, baseplate, four times holed and welded to 5mm masonry anchor bolts. Degrease with				
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ar openings with 10 x 6mm square recessed		SIGNATUF		
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ers eet iron with Globalcoat finish (colour Gemsbok		ARCHITEC	TURAL	4
es standard factory manufactured FK13 barge or		WORK DESCRIPTION		
ry manufactured FK8 headwall flashing and	EI OOP			
th wall mounted centre board 2000 x 1200mm es each 1000 x 1200mm high with permanent	FILE No.			
2000 x 1200mm high (2 per classroom)	DESIGN SCALE	1: 100		DRAWN CHECKE
nish, 760 x 610 x 1700mm high with four	DATE	RESPONSIBLE PI NAME	ROFESSIONAL SIGNATURE	PR NUMBER
x 2134mm long double slotted epoxy powder and down to a smooth finish, stop with Polycell 3 mineral turpentine (AZH1) then apply two	2023.06.20 Y	Y.VAHED DRAWING CO-	ORDINATED	7812
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with chamfered edges. Sand down to a Iltra (X44) suede varnish thinned with 1:3 Itra (X44) suede varnish to back plate. Provide n AL5066-E08/2AS aluminium red down arrow		ben red	dy archite	
066-06ASE05 aluminium engraved red fire gn above fire hose reel. Water supply in parts of pipes with Plascon Aquasolv h Plascon Metal Primer (UC501) and apply two Provide 150 x 150mm Union AL5066-E05/2AS		Ismini Street, Polokw +27 15 065 0645, Email: info@rube	vane, D699 South Afric Fax: +27 11 475 836 enreddyarch.co.za nreddyarch.co.za	
ove fire hose reel.	CADD AUTO SYSTEM AUTO	O CAD		FILE

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A 1







SECTION THROUGH STRIP FOUNDATION - 600 x 250 Dp Base 230 WALLS INTERNAL WALLS

> - Y10-400 - SF01 4Y12 - SF02

BASE REINFORCEMENT See Bending Schedule for Details



100mm Concrete Slab, 25MPa/19mm with MESH REF. 193 DPM to Architect's 150mm G6 or better compacted to 96% MOD AASHTO Rip and compact in-situ material compacted to 96% MOD ASSHTO. 600 x 250dp 25MPa/19mm Concrete Strip Footing

150mm G6 or better compacted to 96% MOD AASHTO 150mm G6 or better compacted to 96% MOD AASHTO

Rip and compact in-situ material compacted to 96% MOD ASSHTO.

#### CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement accord strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ of trenches to be treated with ant poison of the Prothor 200 SC or other approved of solution per m² by a firm of specialists in accordance with SANS Specification Concrete to be casted within 24 hours of application. Contractor to provide five ye A2. Backfilling and filling under floors - in general, approved filling compacted to of maximum 150mm - refer to engineer's drawings for detail in case of poor soil c provided above natural or compacted ground level under floors. All filling to be ap minimum G5 or G7 material as per engineer's drawings). Compaction tests to be area under floors per each layer of 150mm compacted filling. Filling under floors t 200 SC or other approved type applied at a rate of not less than 5 litres of solution with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be of Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings bu 952 Type C approved USB Green 250 micron waterproofing membrane with laps bed cast in alternative sections of maximum 20m² with saw cut joints with joints fi joints to be done within 24 hours after casting of concrete. Provide 10mm thick bit walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 19 Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer' Specification 952 Type C approved USB Green 250 micron waterproofing membr tape. Surface bed cast in alternative sections of maximum 20m² with expansion j sealer. Provide 10mm thick bitumen impregnated soft board between all walls and sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 all external door openings external surface beds must be level with granolithic three smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge t deep (net) edge excavated in natural or finished ground level Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm merant smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain ( Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1 Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75 "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel pa 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (A Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (Az Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clea

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in wal D6. Internal walls - approved stockbrick walls in stretcher bond above to receive off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Wa broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls

smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC5 Ceilings (EPL) PVA paint. Colour as per finishes schedule. D8. All exposed expansion joints in walls and floors to be filled in with Urochem 20 been primed with Urochem 614 primer

D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF Window sills

E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and se coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin W per finishes schedule

E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill recessed joints

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colou Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two fini suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Tr ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pin Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finis purlins at maximum 1200mm centres on patent and approved pre-fabricated truss specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory man

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Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with high, two wall mounted side boards each 1000 x 1200mm high & two swing leave aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2 H3. Greenfield G25 double door steel cupboard with standard baked enameled fi shelves (2 per classroom)

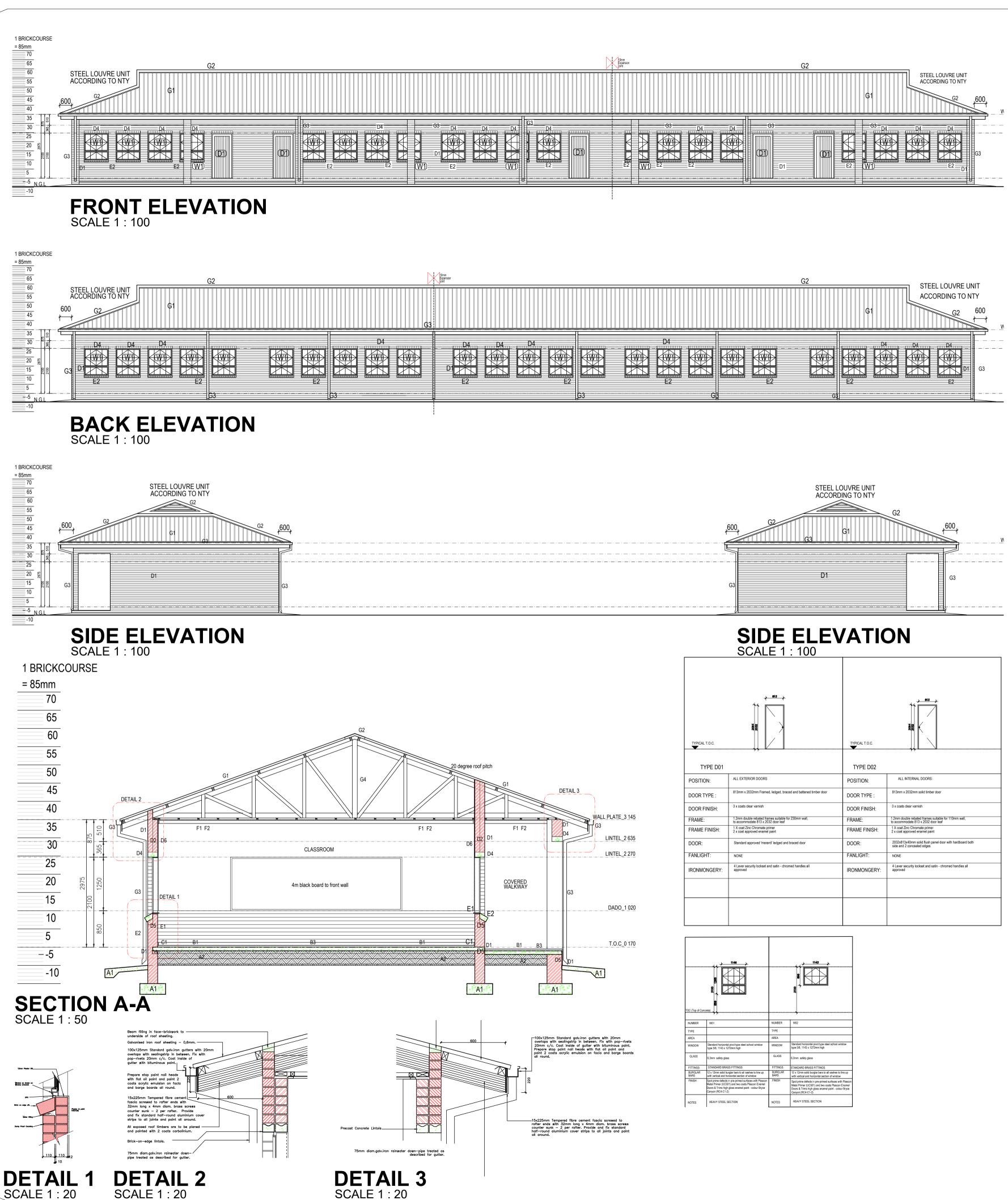
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sa Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1: finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ult mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ult 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL50 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sig buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). P aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign abo

		NOTE	S :			
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th wall mounted centre board 2000 x 1200mm		FOUN	DATIO	N PLAN	I,SECTION	
es each 1000 x 1200mm high with permanent 2000 x 1200mm high (2 per classroom)		DESIGN SCALE	1.	: 100		ITEM No. DRAWN
hish, 760 x 610 x 1700mm high with four	f	DATE		RESPONSIBLE	PROFESSIONAL SIGNATURE	
paced & fixed from underside to 305mm wide 2134mm long double slotted epoxy powder and down to a smooth finish, stop with Polycell 3 mineral turpentine (AZH1) then apply two		2023.06.20	Y.V	VAHED DRAWING CC	D-ORDINATED	7812
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Provide 150 x 150mm Union AL5066-E05/2AS ove fire hose reel.		CADD SYSTEM	AUTO	CAD		FILE
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2020 67-5CL-102



TOC (Top of Cor			
			r 1
NUMBER	W01	NUMBER	W02
TYPE		TYPE	
AREA		AREA	
WINDOW	Standard horizontal pivot type steel school window type 5/8, 1143 x 1272mm high	WINDOW	Standard horizontal pivot type steel school window type 5/8, 1143 x 1272mm high
GLASS	6.3mm safety glass	GLASS	6.3mm safety glass
FITTINGS	STANDARD BRASS FITTINGS	FITTINGS	STANDARD BRASS FITTINGS
BURGLAR BARS	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window	BURGLAR BARS	12 x 12mm solid burglar bars to all sashes to line up with vertical and horizontal section of window
FINISH	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Canyon (RC4-C1-2)	FINISH	Spot prime defects in pre-primed surfaces with Plascon Metal Primer (UC501) and two coats Plascon Enamel Doors & Trims high gloss enamel paint - colour Bryce Canyon (RC4-C1-2)
NOTES	HEAVY STEEL SECTION	NOTES	HEAVY STEEL SECTION

#### CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement accor strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m of trenches to be treated with ant poison of the Prothor 200 SC or other approved of solution per m² by a firm of specialists in accordance with SANS Specification Concrete to be casted within 24 hours of application. Contractor to provide five years A2. Backfilling and filling under floors - in general, approved filling compacted to of maximum 150mm - refer to engineer's drawings for detail in case of poor soil provided above natural or compacted ground level under floors. All filling to be ap minimum G5 or G7 material as per engineer's drawings). Compaction tests to be area under floors per each layer of 150mm compacted filling. Filling under floors 200 SC or other approved type applied at a rate of not less than 5 litres of solutio with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings be 952 Type C approved USB Green 250 micron waterproofing membrane with laps bed cast in alternative sections of maximum 20m² with saw cut joints with joints joints to be done within 24 hours after casting of concrete. Provide 10mm thick b walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 1 Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer Specification 952 Type C approved USB Green 250 micron waterproofing memb tape. Surface bed cast in alternative sections of maximum 20m² with expansion sealer. Provide 10mm thick bitumen impregnated soft board between all walls an sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 all external door openings external surface beds must be level with granolithic th smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge deep (net) edge excavated in natural or finished ground level Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm merar smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain ( Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mr D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd cours Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75 "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel p 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (A Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (A Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clea

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in wa D6. Internal walls - approved stockbrick walls in stretcher bond above to receive off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin W broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC Ceilings (EPL) PVA paint. Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Urochem 2 been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF

Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and s coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin V

per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill recessed joints

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centre stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colo Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two fin suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvi White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. T ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pin Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat fin purlins at maximum 1200mm centres on patent and approved pre-fabricated trust specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory man

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge countersunk brass screws. Prime fascias and barge boards with one coat Plasco with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per fil G4. Truss system - MiTek or other approved patent timber pre-fabricated truss sy degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114m before fixing. Truss manufacturer to provide certificate and guarantee for design shop drawings. Shop drawings to be provided to the Principal Agent for approval with wet trades to be carbolineum treated before fixing in position. Trusses to be galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to tra diameter galvanised steel wire, twice wrapped around and tied around rafters an etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with o apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes sch G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutte G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised she Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpip G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron a gable flashing with Globalcoat finish (colour Traffic Green)

G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factor FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with high, two wall mounted side boards each 1000 x 1200mm high & two swing leave aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size H3. Greenfield G25 double door steel cupboard with standard baked enameled fi shelves (2 per classroom)

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sa Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1: finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare U mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare U 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union sign above fire extinguisher

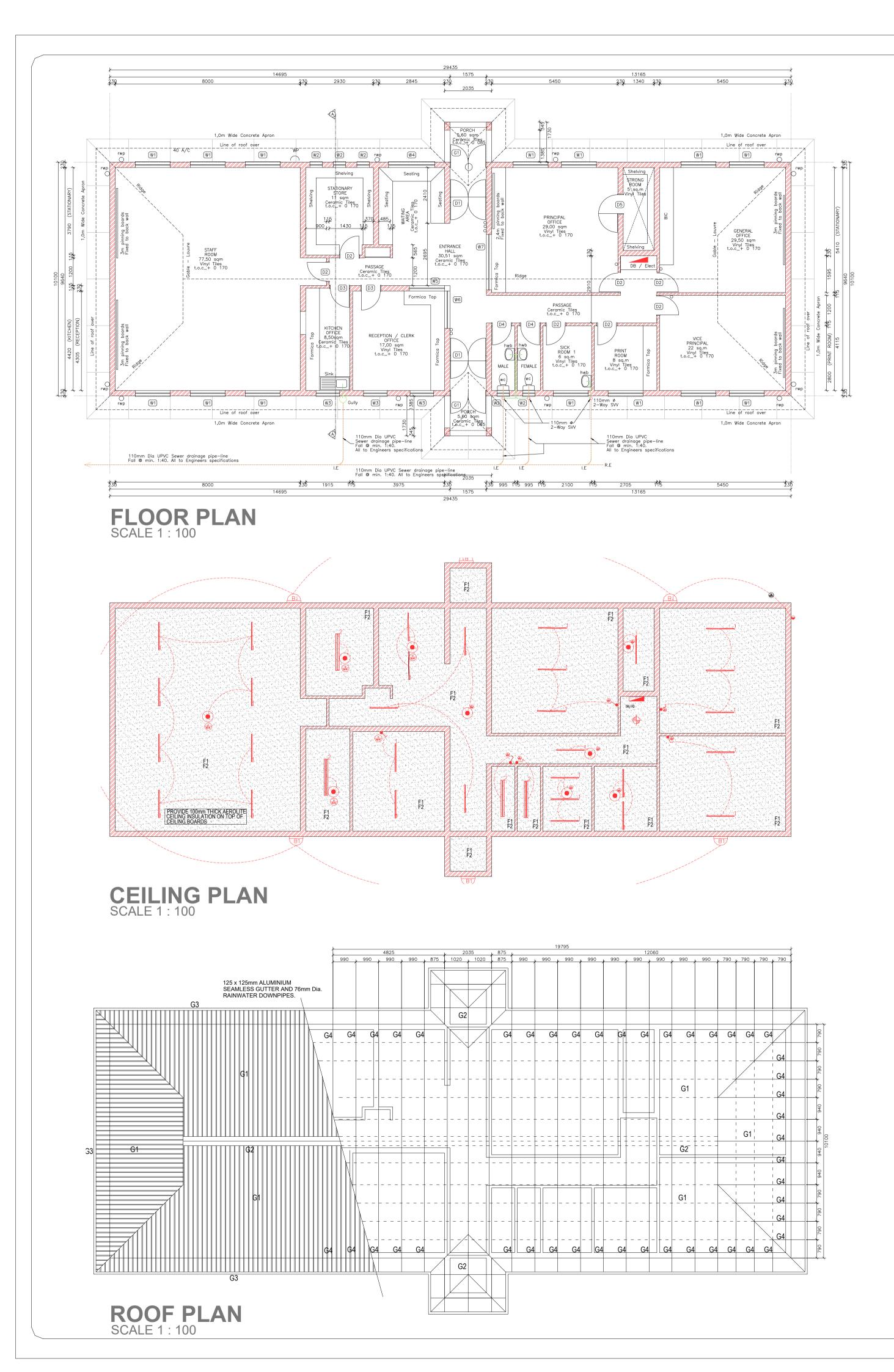
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL50 hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow signature and the second sec buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign ab

	NUTES .	
ording to structural engineer's drawings. Top of 5m ³ or 1 per batch). Finished sides and bottoms ed type applied at a rate of not less than 5 litres n 1165 and SANS Code of Practice 0124. year guarantee. to at least 93% Mod. AASHTO density in layers l conditions. Minimum of 170mm filling to be approved by engineer (imported filling to be be provided at a rate of one test per 125m ² filling s to be treated with ant poison of the Prothor cion per m ² by a firm of specialists in accordance be casted within 24 hours of application.	<ol> <li>Workmanship to comply with Standard Specification of methods to be used - SABS 0400</li> <li>Light Switch in Disabled toilet to be at 1200 mm above F</li> <li>If Step over 900 mm Build in Balustrade</li> <li>Gulley positions to be determined as per site prescribed design</li> <li>2 x coats sealant on all exposed trusses (sand off all S markings)</li> <li>50 mm mineral wool insulation to be installed where ther Bubble plastic insulation with foil backing to be installed w all areas that do not have ceilings</li> <li>West Facing Facades to have standardised aluminium eaves to drop of 1200 mm</li> <li>Trusses to be designed in accordance with SABS 0400 Project Engineers</li> </ol>	FL overall drainage SABS & other re are ceilings . ith wire supports in louvres from below
but minimum 85mm thick on SANS Specification ps sealed with pressure sensitive tape. Surface filled up with polysulfide sealer. All saw cut bitumen impregnated soft board between all 193 as per structural engineer's drawings.		
er's drawings but minimum 85mm thick on SANS abrane with laps sealed with pressure sensitive a joints with joints filled up with polysulfide and concrete and seal joint with polysulfide e test cubes (1 per 15m ³ or 1 per batch) 4 granolithic screed sloping towards edges. At hreshold finish. Finish off edges of screed		
n. Apron to be cast in alternative sections in ge to be thickened by 240mm wide x 115mm		
anti quadrand bead plated on. Sand down to a (W-range)(colour meranti), apply one coat H1) and apply two finishing coats Plascon		
nm deep square recessed joints rse. Superstructure walls - every 6th course.		
nm thick flat section U-shaped fixing bracket, n baseplate, four times holed and welded to 75mm masonry anchor bolts. Degrease with er (RR1)", prime with Plascon Metal Primer paint - colour as per finishes schedule. vn to a smooth finish, stop with Polycell (AZH1), apply one coat Plascon Woodcare (AZH1) and apply two finishing coats Plascon		7
ear openings with 10 x 6mm square recessed	ISSUED FOR TENDER	1
valls at floor level and under all window sills e one coat smooth 1:5 cement plaster finished Walls & Ceilings (EPL) PVA paint. Colour	DISCIPLINE SIGNATURE TABLE	DATE
s in stretcher bond above to receive one coat	PLAN EXAMINER FIRE CONTROL	
C56) and two coats Plascon Polvin Walls & 205 polysulfide joint sealant after surfaces have	ENVIRONMENTAL OFFICER ROADS / STORMWATER	
KF250/30 aluminium cover strips	WATER AND SANITATION ENVIRONMENTAL OFFICER	
set flat in 1:4 cement mortar. Prime with one Walls & Ceilings (EPL) PVA paint. Colour as ill to match walls with 10 x 6mm square		
res maximum. Sand down to a smooth finish, our meranti), apply one coat Plascon Woodcare	REV NO DATE : DESCRIPTION : REVISIONS	
inishing coats Plascon Woodcare Ultra (X44) P brandering at 400mm centres maximum with s to be pre-painted. Prime ceilings with one coat vin Walls & Ceilings (EPL) PVA paint. Colour	SIZE ON ORIGINAL DRAWING 100 mm	
38 x 38mm SA pine cross brander covered with Trap door and surround to be painted as for pine bearers, nailed to trusses		
inish (colour Traffic Green) on 50 x 76mm SAP iss system. Roof sheeting to be done by		
nufactured FK3 ridge or hip flashing with ed to truss ends and counter batten with		
ge boards screw fixed to trusses or purlins with con Multi-Surface Primer (WUP1) and finish off		
finishes schedule. system at maximum 1100mm centres with 20 mm SAP wall plate to be carbolineum treated	MOKHARI SECONDARY SCHOOL	ER
n and erection of trusses as well as detailed al before manufacturing. All sections in contact e secured to walls with 2.5mm diameter	906121051 SERVICE	
trusses must also be secured with 2.5mm nd purlins. All exposed parts of trusses, purlins, one coat Plascon Wood Primer (UC2) and	NEW BUILDINGS & ALTERATIC	
hedule. on with Globalcoat finish (colour Gemsbok tters	DOCUMENTATION & PROCUR	PROJECT STAGE
neet iron with Globalcoat finish (colour Gemsbok ipes		4
standard factory manufactured FK13 barge or	5 CLASSROOM BLOCK	
with wall mounted centre board 2000 x 1200mm	ELEVATIONS & SECTION	
ves each 1000 x 1200mm high with permanent	FILE No.       DESIGN       OCALE	ITEM No. DRAWN
e 2000 x 1200mm high (2 per classroom) finish, 760 x 610 x 1700mm high with four	SCALE 1: 100  RESPONSIBLE PROFESSIONAL DATE NAME SIGNATURE	CHECKED
y spaced & fixed from underside to 305mm wide a x 2134mm long double slotted epoxy powder Sand down to a smooth finish, stop with Polycell 1:3 mineral turpentine (AZH1) then apply two	2023.06.20 Y.VAHED DRAWING CO-ORDINATED	7812
e with chamfered edges. Sand down to a Ultra (X44) suede varnish thinned with 1:3 Ultra (X44) suede varnish to back plate. Provide on AL 5066-E08/2AS aluminium red down arrow	CONSULTANT : CONSULTANT : CONSULTANT :	
on AL5066-E08/2AS aluminium red down arrow 5066-06ASE05 aluminium engraved red fire sign above fire hose reel. Water supply in d parts of pipes with Plascon Aquasolv ith Plascon Metal Primer (UC501) and apply two . Provide 150 x 150mm Union AL5066-E05/2AS	Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Af Tel: +27 15 065 0645, Fax: +27 11 475 8 Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR :	rica
bove fire hose reel.	CADD AUTO CAD SIZE DRAWING NUMBER	FILE NAME REV
	SIZE DRAWING NUMBER	REV

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A 1

NOTES



CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee. A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)

Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level Skirtinas

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti guadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as

per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed ioints

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule. G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or

gable flashing with Globalcoat finish (colour Traffic Green) G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) H3. Greenfield G25 double door steel cupboard with standard baked enameled finish. 760 x 610 x 1700mm high with four shelves (2 per classroom)

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

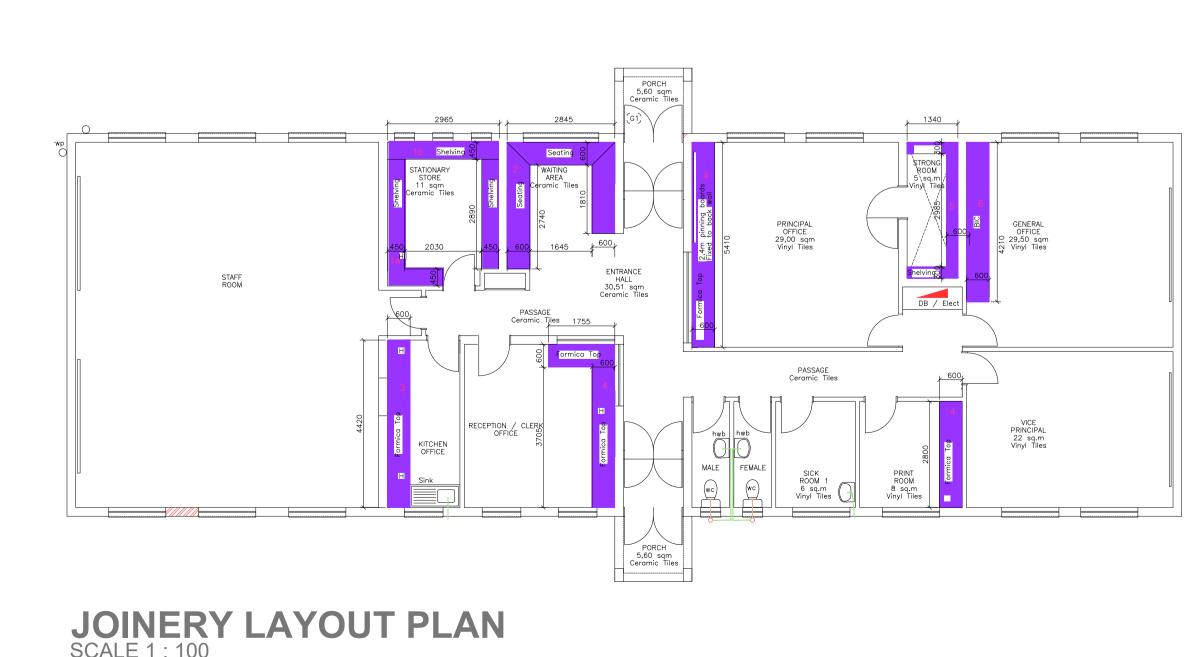
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

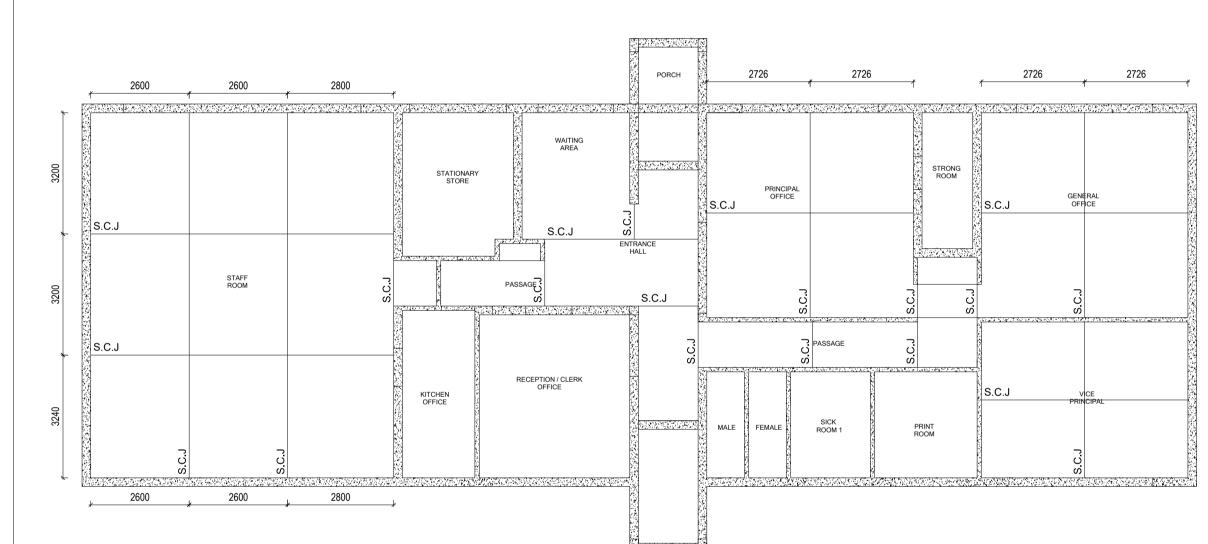
## 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings ) 6) 50 mm mineral wool insulation to be installed where there are ceilings Bubble plastic insulation with foil backing to be installed with wire supports all areas that do not have ceilings Y) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO **PROVINCIAL GOVERNMENT** REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION FLOOR, CEILING & ROOF PLAN FILE No. ITEM No DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 DRAWING CO-ORDINATED CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER

2020 67- MAD- 100

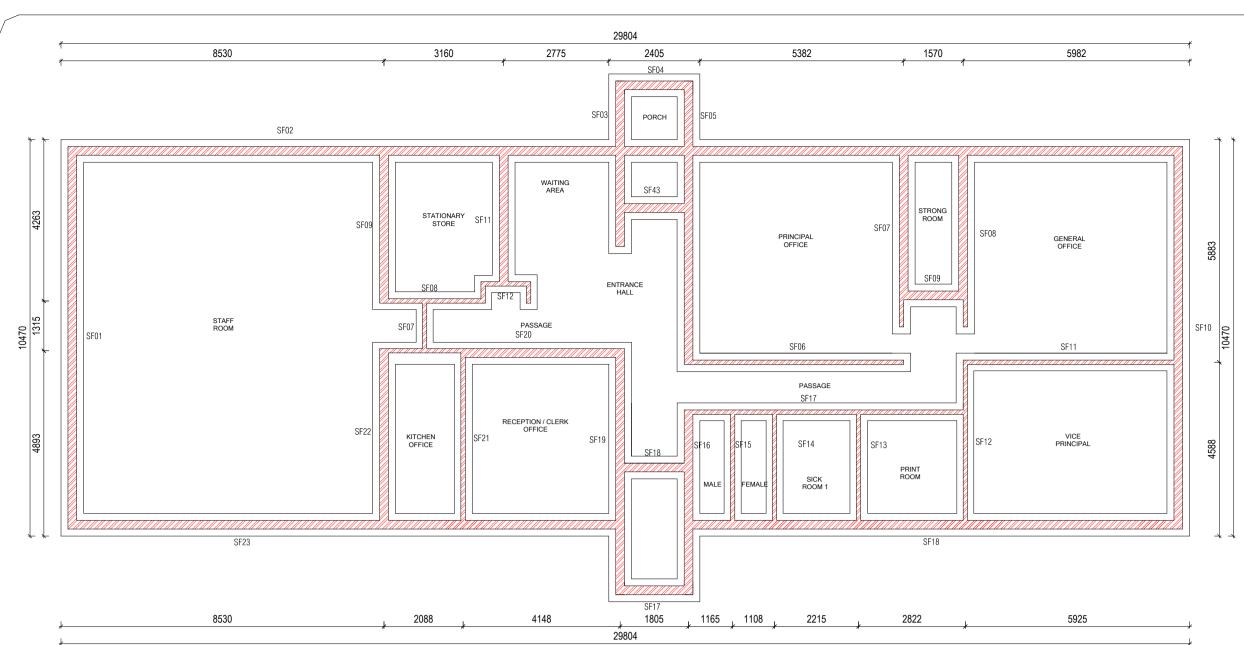
NOTES



## **FLOOR JOINT LAYOUT PLAN** SCALE 1 · 100



# **FOUNDATION PLAN** SCALE 1:100



CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee. A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)

Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level Skirtings

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti guadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1.5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour

broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have

been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips Window sills

E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as

per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed ioints

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule. G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or

gable flashing with Globalcoat finish (colour Traffic Green) G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) H3. Greenfield G25 double door steel cupboard with standard baked enameled finish. 760 x 610 x 1700mm high with four shelves (2 per classroom)

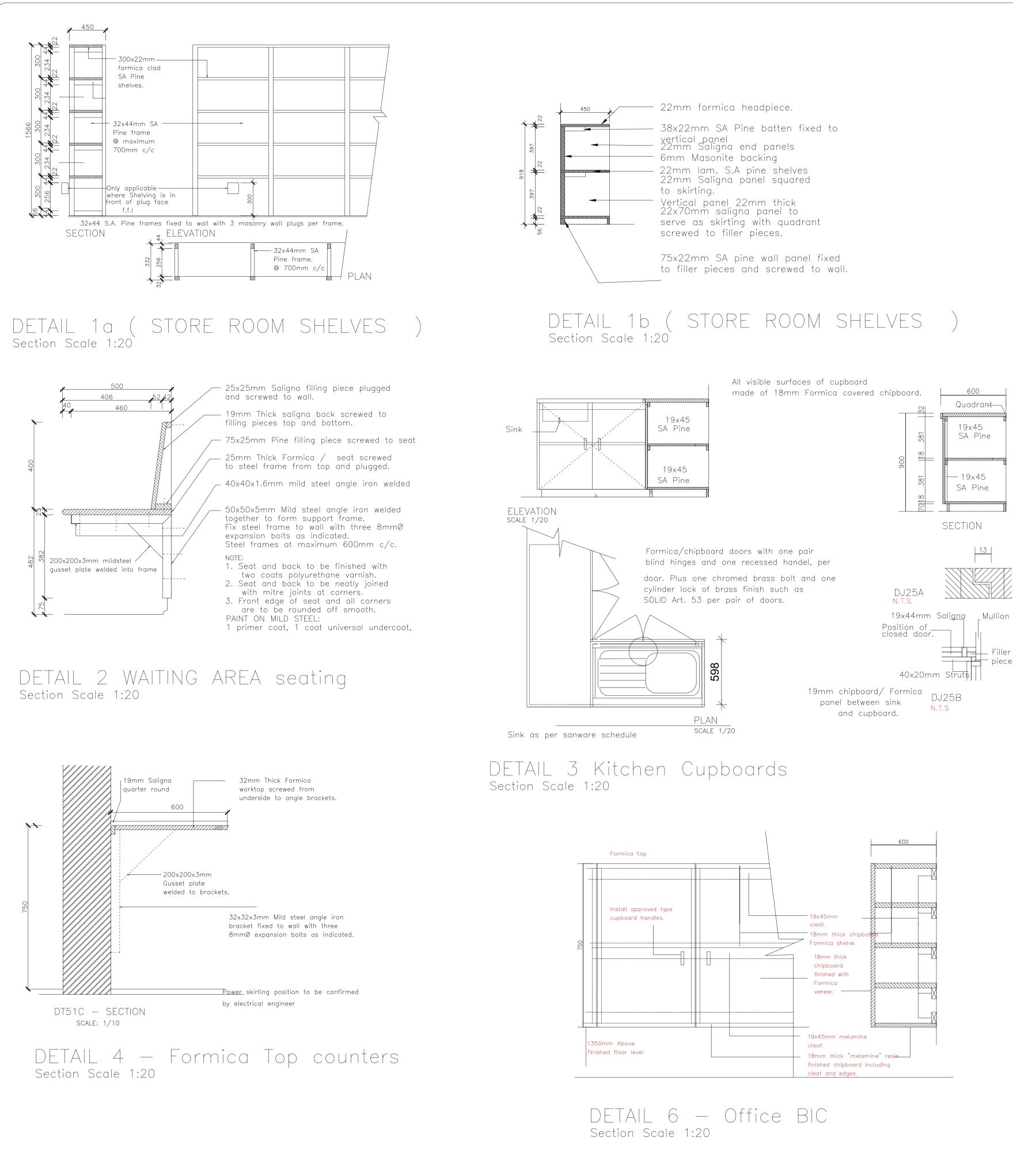
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher

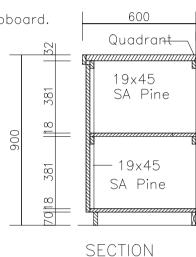
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

## 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage design 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings ) 6) 50 mm mineral wool insulation to be installed where there are ceilings Bubble plastic insulation with foil backing to be installed with wire supports all areas that do not have ceilings 7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION **FOUNDATION PLAN, JOINT & JOINERY** FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 DRAWING CO-ORDINATED CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER

2020 67- MAD- 102







- Filler pieces 19mm chipboard/ Formica DJ25P N.T.S

CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee. A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee Surface beds and floors

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B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

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D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

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D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls &

Ceilings (EPL) PVA paint. Colour as per finishes schedule. D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer

D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one

coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule

E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed ioints

Ceilings and cornices

F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with

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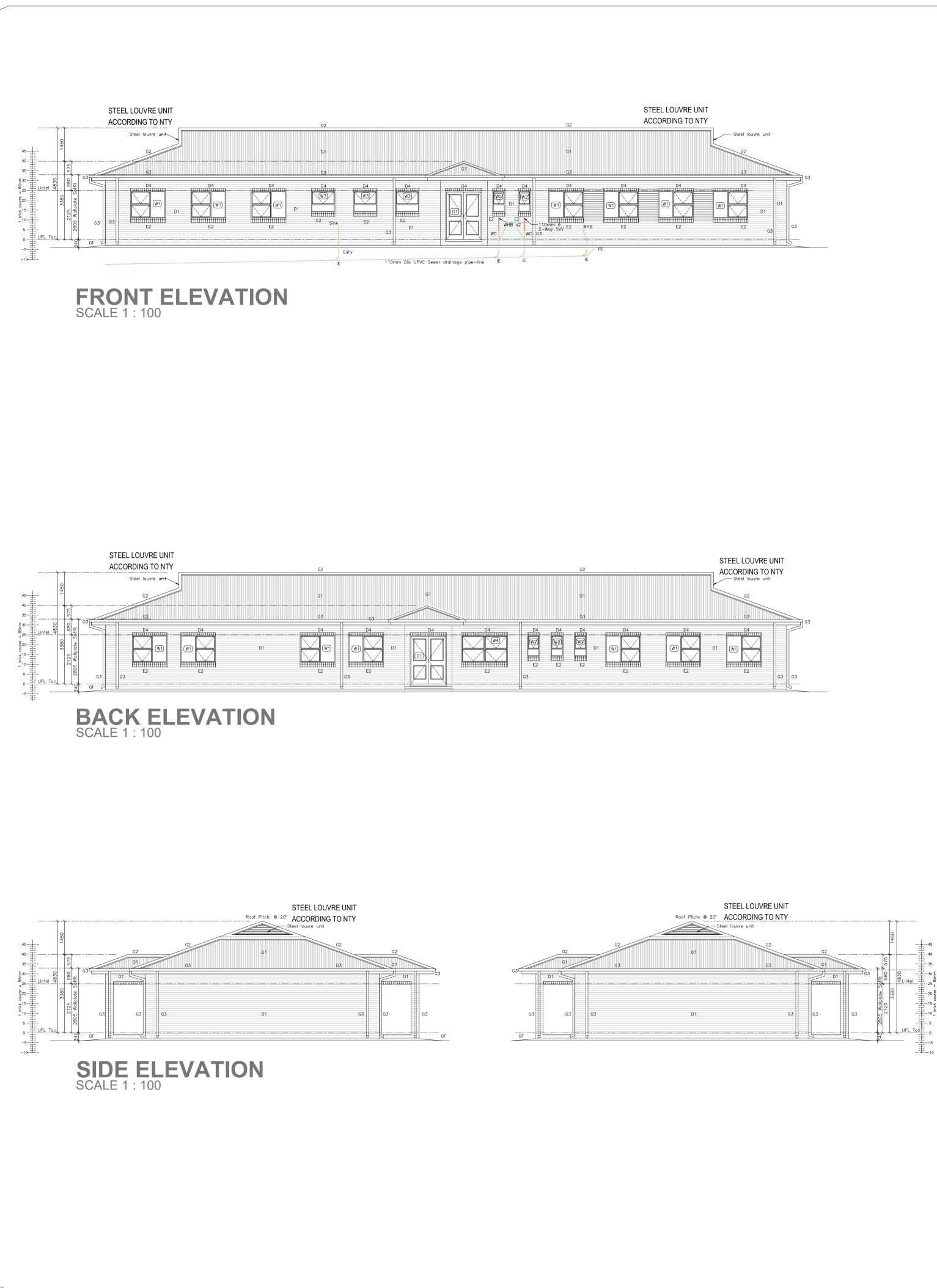
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

## 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage design 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings ) 6) 50 mm mineral wool insulation to be installed where there are ceilings Bubble plastic insulation with foil backing to be installed with wire supports all areas that do not have ceilings 7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION JOINERY DETAILS FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL IAME SIGNATURE DATE PR NUMBER 11400 2023.06.20 Y.VAHED 7812 DRAWING CO-ORDINATED CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER

2020 67- MAD- 103



CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee. A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)

Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level Skirtinas

C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti guadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls &

Ceilings (EPL) PVA paint. Colour as per finishes schedule. D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer

D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one

coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule

E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed ioints

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F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses Roof and fascias

G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with

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countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule. G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or

gable flashing with Globalcoat finish (colour Traffic Green) G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

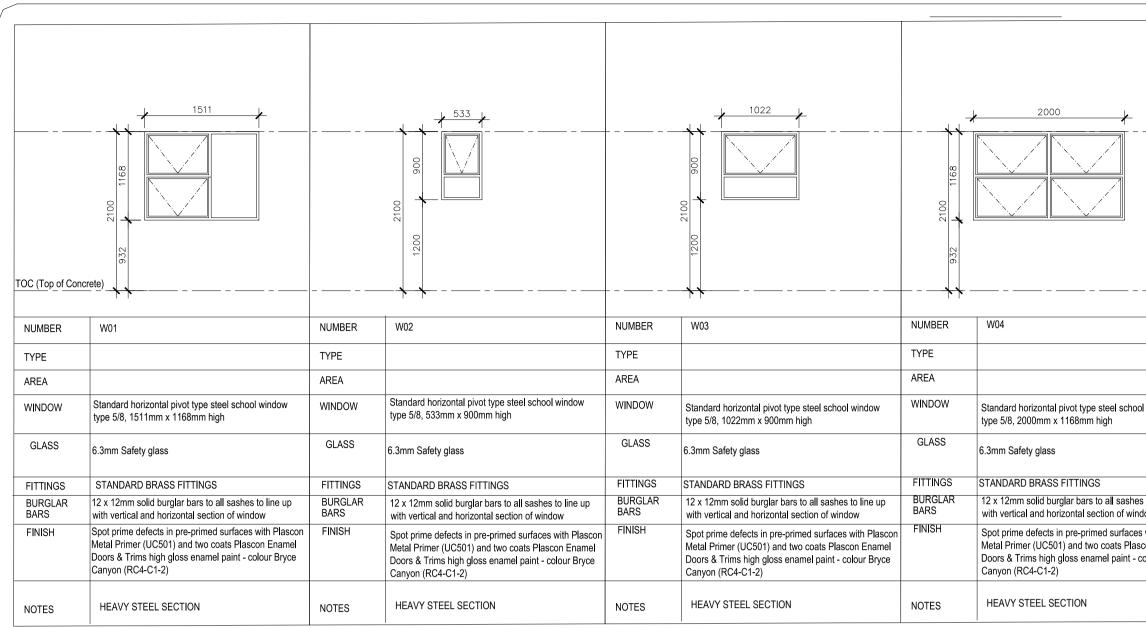
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

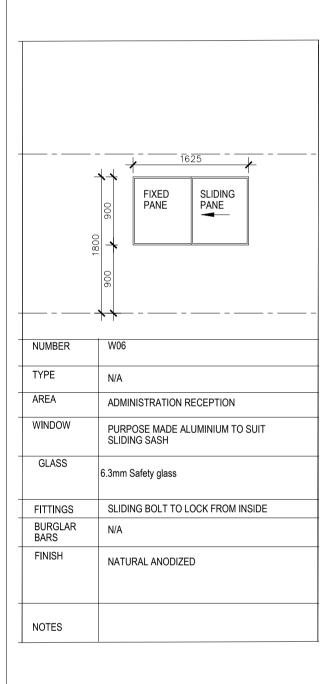
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2020 67- MAD- 104





		PANE PANE		FIXED SLIDING PANE PANE 006 007 006 007 007 007 007 007 007 007
	NUMBER	W05	NUMBER	W06
	TYPE	N/A	TYPE	N/A
	AREA	ADMINISTRATION RECEPTION	AREA	ADMINISTRATION RECEPTION
ol window	WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH	WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH
	GLASS	6.3mm Safety glass	GLASS	6.3mm Safety glass
	FITTINGS	SLIDING BOLT TO LOCK FROM INSIDE	FITTINGS	SLIDING BOLT TO LOCK FROM INSIDE
es to line up ndow	BURGLAR BARS	N/A	BURGLAR BARS	N/A
s with Plascon scon Enamel colour Bryce	FINISH	NATURAL ANODIZED	FINISH	NATURAL ANODIZED
	NOTES		NOTES	

CONSTRUCTION NOTES:

#### Foundations

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee. A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee Surface beds and floors

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)

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B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level

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D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

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E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule

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G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with

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gable flashing with Globalcoat finish (colour Traffic Green) G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) H3. Greenfield G25 double door steel cupboard with standard baked enameled finish. 760 x 610 x 1700mm high with four shelves (2 per classroom)

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

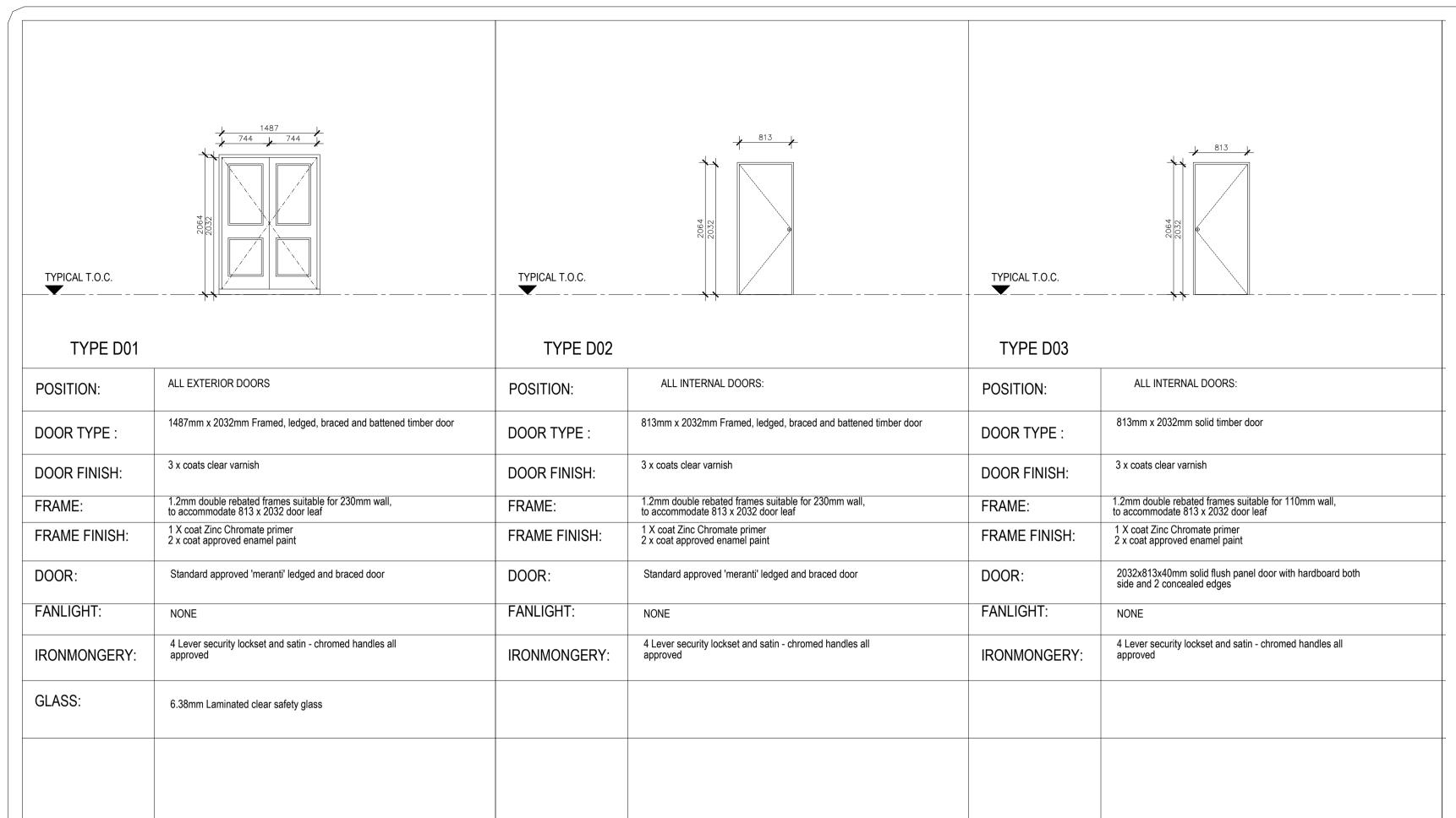
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher

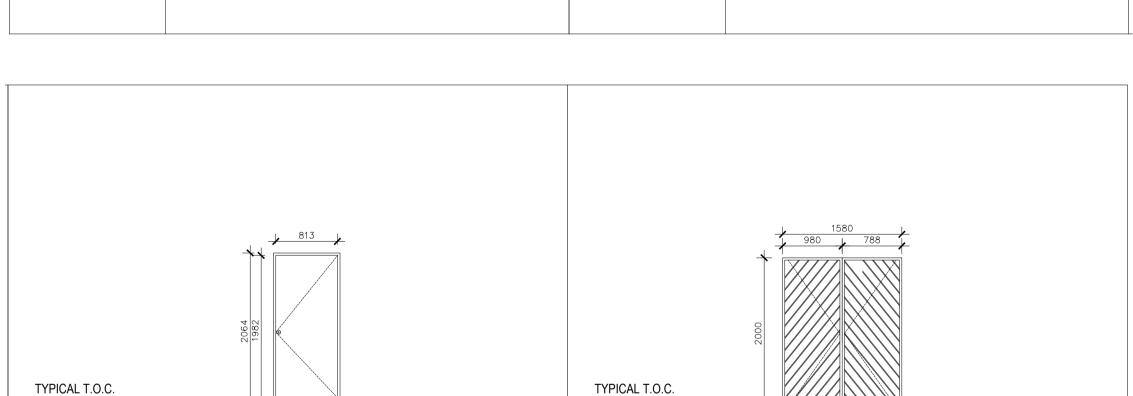
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

### 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL ) If Step over 900 mm Build in Balustrade 1) Gulley positions to be determined as per site prescribed overall drainage 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings ) 6) 50 mm mineral wool insulation to be installed where there are ceilings Bubble plastic insulation with foil backing to be installed with wire supports all areas that do not have ceilings Y) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS **ISSUED FOR TENDER** SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION MOKHARI SECONDARY SCHOOL INSTITUTION EMIS NUMBER 906121051 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION **DOCUMENTATION & PROCUREMENT** DISCIPLINE PROJECT STAGE ARCHITECTURAL WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION WINDOW SCHEDULE FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.06.20 Y.VAHED 7812 DRAWING CO-ORDINATED CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER

2020 67- MAD- 105

NOTES





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TYPE D04		TYPE G01	
POSITION:	TOILET CUBICLES	POSITION:	ENTRANCE
DOOR TYPE :	813mm x 2032mm solid timber door 150mm UNDERCUT	DOOR TYPE :	1580mm x 2000mm
DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish
FRAME:	1.2mm double rebated frames suitable for 110mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 230mm wall, to accommodate 936 x 2032 door leaf
FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint
DOOR:	2032x813x40mm solid flush panel door with hardboard both side and 2 concealed edges	DOOR:	painted mild steel gate consisting of 10x10mm mild steel bars placed at 100mm centres at a 45° angle, colour to architect's specification
FANLIGHT:	NONE	FANLIGHT:	NONE
IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved

CONSTRUCTION NOTES:

#### Foundations

<u>A1</u>. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L. Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee. <u>A2</u>. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee Surface beds and floors

<u>B1.</u> Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum  $20m^2$  with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)

B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS
 Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)
 B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool

<u>B4.</u> Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level Skirtings

<u>C1.</u> 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish

joints <u>D5.</u> DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills <u>D6.</u> Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat

smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. <u>D8.</u> All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer

<u>D9.</u> Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips Window sills

E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule

E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed joints

Ceilings and cornices

<u>F1.</u> Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices

<u>F2.</u> Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings F3. Plastered ceiling as per finishes schedule

F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses Roof and fascias

<u>G1.</u> Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with

Globalcoat finish (colour Traffic Green) G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with

countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule. G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or

gable flashing with Globalcoat finish (colour Traffic Green) <u>G8.</u> Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

<u>Fittings</u> <u>H1.</u> Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail

<u>H2</u>. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) <u>H3</u>. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

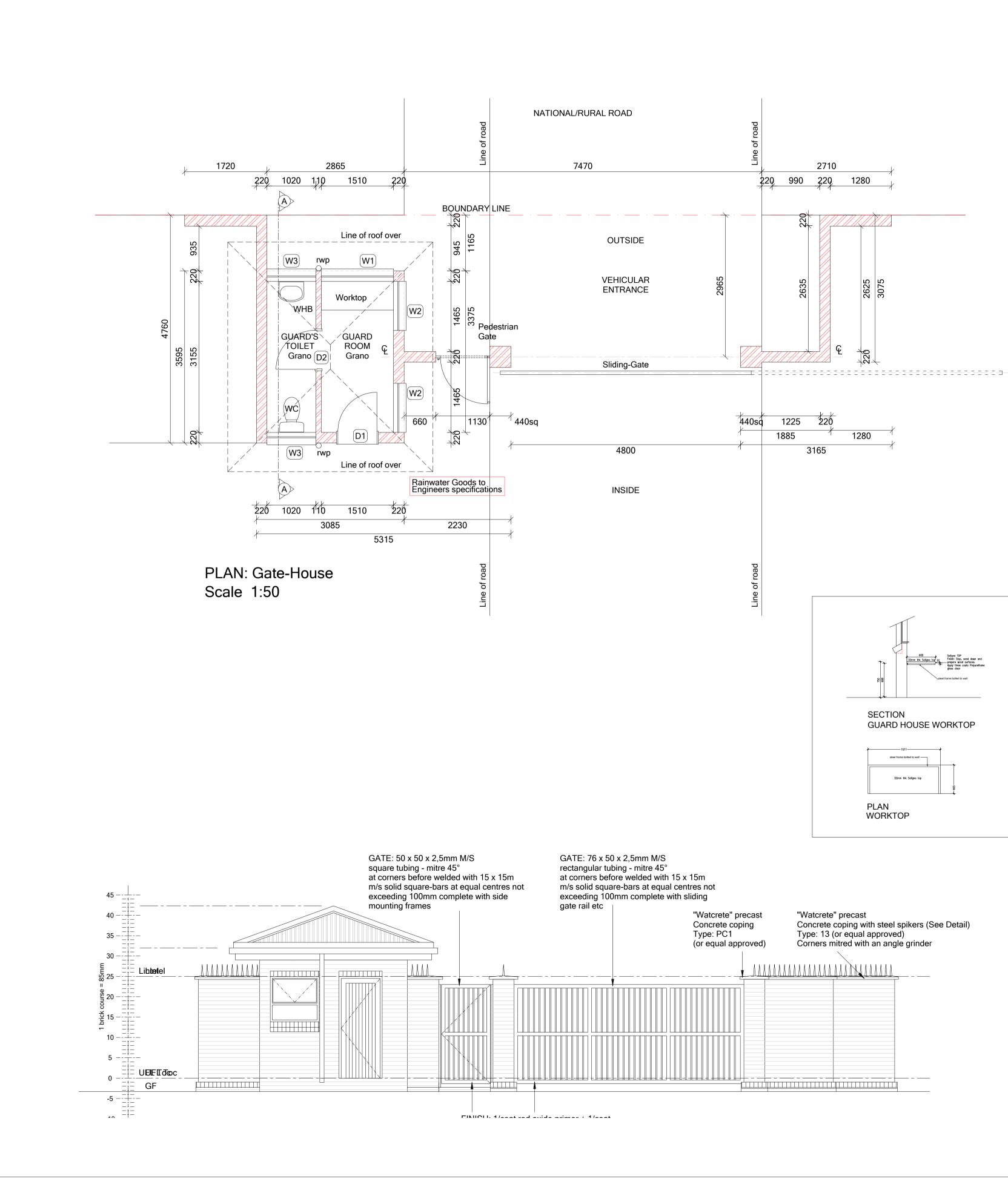
H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

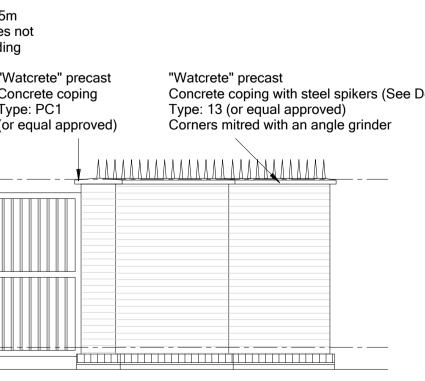
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I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage design 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other 6) 50 mm mineral wool insulation to be installed where there are ceilings Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings 7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 3) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers DRAWINGS FOR CONSTRUCTION SIGNATURE TABLE DISCIPLINE SIGNATURE DATE **CLIENT** PLAN EXAMINER FIRE CONTROL ENVIRONMENTAL OFFICER ROADS / STORMWATER WATER AND SANITATION ENVIRONMENTAL OFFICER REV No DATE DESCRIPTION SIZE ON ORIGINAL DRAWING 100 mm LIMPOPO **PROVINCIAL GOVERNMENT** REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE INSTITUTION (MMAPHUTI MANAMELA SECONDARY SCHOOL INSTITUTION EMIS NUMBER 991104202 SERVICE **NEW BUILDINGS & ALTERATIONS** CONTRACT - SECTION CONSTRUCTION DISCIPLINE PROJECT STAGE ARCHITECTURAL 5 WORK DESCRIPTION - SUB DIVISION MEDIUM ADMINISTRATION BLOCK DRAWING DESCRIPTION **DOOR SCHEDULE** FILE No. ITEM No. DESIGN DRAWN SCALE CHECKED 1: 100 RESPONSIBLE PROFESSIONAL SIGNATURE DATE PR NUMBER 2023.05.08 7812 Y.VAHED DRAWING CO-ORDINATED CONSULTANT Pruben reddy architects Suite 4 No 6 Ismini Office Building, 6 Ismini Street, Polokwane, D699 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za CONTRACTOR AUTO CAD DRAWING NUMBER

2020 66- MAD- 106



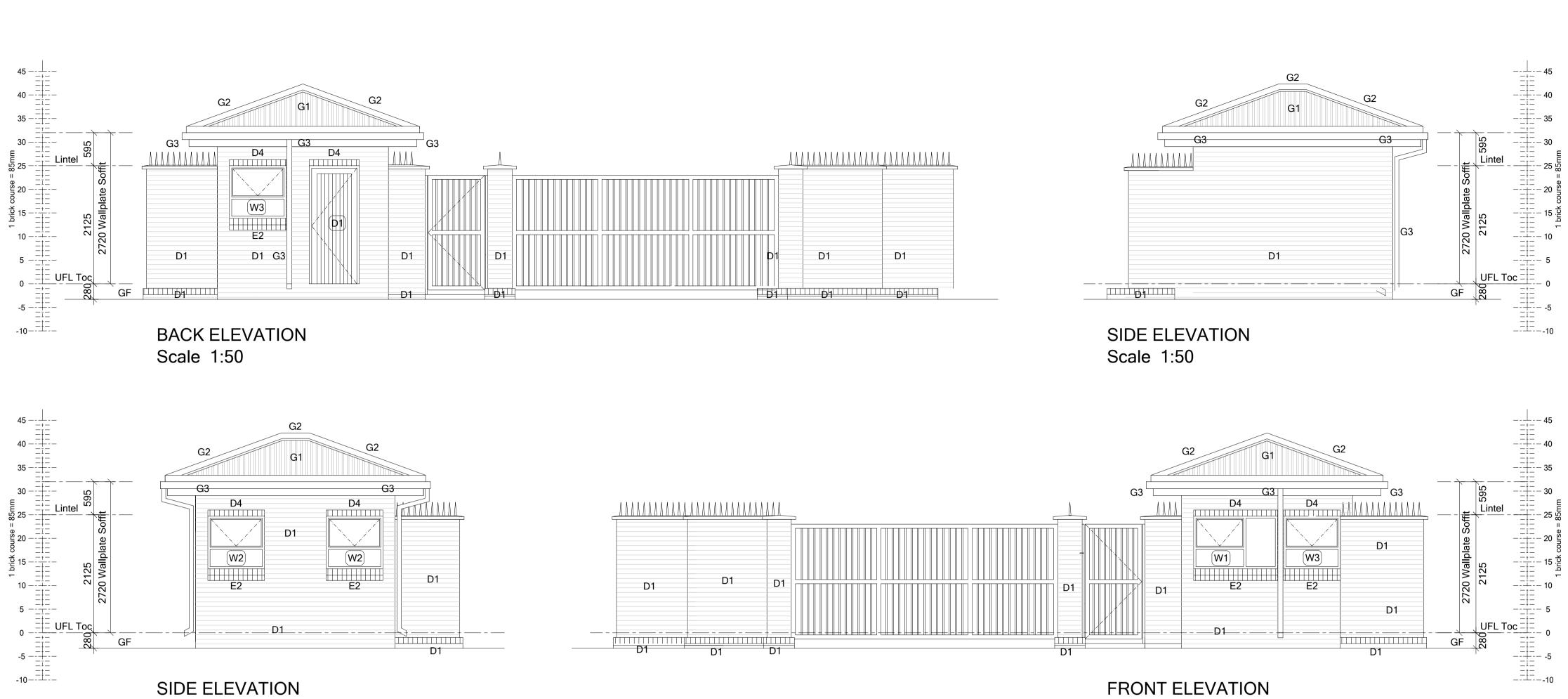


	NOTES :
Foundations         CONSTRUCTION NOTES           A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top of strip footings to be 340mm minimum below N.G.L.           Provide test cubes (1 per 15m ³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m ² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year guarantee.           A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (imported filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 125m ² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m ² by a firm of specialists in accordance with SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide by engineer (imported filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a rate of not less than 5 litres of solution per m ² by a firm of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 24 hours of application. Contractor to provide five year <th><ol> <li>Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400</li> <li>Light Switch in Disabled toilet to be at 1200 mm above FFL</li> <li>If Step over 900 mm Build in Balustrade</li> <li>Gulley positions to be determined as per site prescribed overall drainage design</li> <li>2 x coats sealant on all exposed trusses (sand off all SABS &amp; other markings)</li> <li>50 mm mineral wool insulation to be installed where there are ceilings. Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings</li> <li>West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm</li> <li>Trusses to be designed in accordance with SABS 0400 &amp; approved by</li> </ol></th>	<ol> <li>Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400</li> <li>Light Switch in Disabled toilet to be at 1200 mm above FFL</li> <li>If Step over 900 mm Build in Balustrade</li> <li>Gulley positions to be determined as per site prescribed overall drainage design</li> <li>2 x coats sealant on all exposed trusses (sand off all SABS &amp; other markings)</li> <li>50 mm mineral wool insulation to be installed where there are ceilings. Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings</li> <li>West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm</li> <li>Trusses to be designed in accordance with SABS 0400 &amp; approved by</li> </ol>
guarantee Surface beds and floors B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m ² with saw cut joints with joints filled up with polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m ³ or 1 per batch) B2. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 952 Type C approved USB Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m ² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m ² with expansion joints with joints filled up with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m ³ or 1 per batch) B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At all external door openings external surface beds must	Project Engineers
be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool <b>B4.</b> Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in lengths of maximum 3m and to have a 1:100 fall away from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground level <b>Skirtings</b> <b>C1.</b> 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings <b>Walls and structure</b>	
<ul> <li>D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints</li> <li>D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below</li> <li>D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 x 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door &amp; Trims high gloss enamel paint - colour as per finishes schedule.</li> <li>50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 10 x 6mm square recessed joints</li> </ul>	
<ul> <li>D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills</li> <li>D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls &amp; Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent</li> <li>D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plaster finished off with one coat Plaster Primer (UC56) and two coats Plascon Polvin Walls &amp; Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent</li> <li>D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls &amp; Ceilings (EPL) PVA paint. Colour as per finishes schedule.</li> <li>D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer</li> <li>D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips</li> <li>Window sills</li> <li>E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply</li> </ul>	
<ul> <li>two coats Plascon Polvin Walls &amp; Ceilings (EPL) PVA paint. Colour as per finishes schedule</li> <li>E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed joints</li> <li>Ceilings and cornices</li> <li>F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices</li> <li>F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls &amp; Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings</li> <li>F3. Plastered ceiling as per finishes schedule</li> <li>F4. Plastered ceiling as per finishes schedule</li> <li>F4. Plastered ceiling as per finishes schedule</li> </ul>	ISSUED FOR TENDER
<ul> <li>F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses Roof and fascias</li> <li>G1. Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee.</li> <li>G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green)</li> <li>G3. Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls &amp; Ceilings (EPL) PVA paint. Colour as per finishes schedule.</li> <li>G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as</li> </ul>	SIGNATURE TABLE         DISCIPLINE       SIGNATURE         DISCIPLINE       DATE         CLIENT       PLAN EXAMINER         FIRE CONTROL       Interval         FINE DOLMENTAL OFFICIER       Interval
Weil as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule. <b>G5.</b> Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters <b>G6.</b> Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes	ENVIRONMENTAL OFFICER         ROADS / STORMWATER         WATER AND SANITATION         ENVIRONMENTAL OFFICER         Image: Comparison of the second
<ul> <li>G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green)</li> <li>G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)</li> <li>Fittings</li> <li>H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high &amp; two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail</li> <li>H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)</li> <li>H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)</li> <li>H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced &amp; fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets</li> </ul>	REV No         DATE :         DESCRIPTION :           REVISIONS
to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves <b>Miscellaneous</b> If 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fir sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.	LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF EDUCATION
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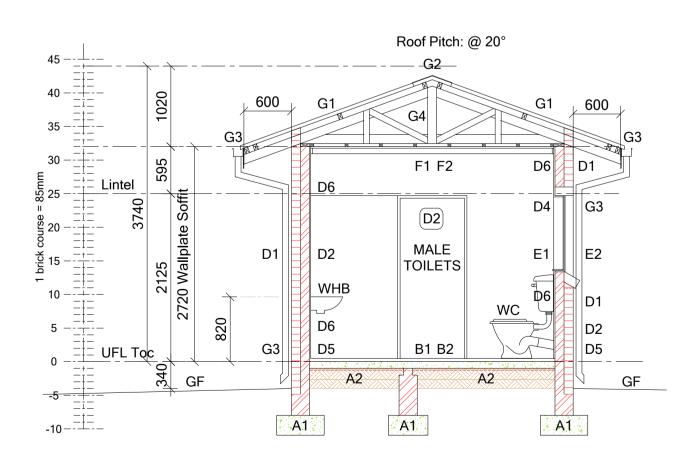
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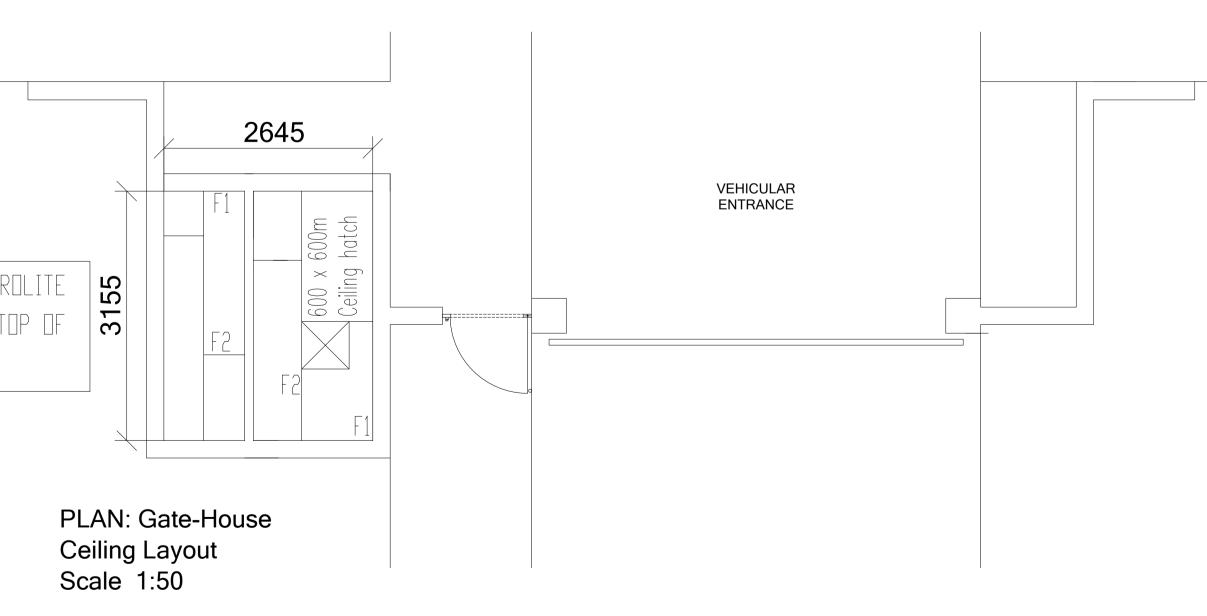


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PROVIDE 100mm THICK AEROLITE CEILING INSULATION ON TOP OF CEILING BOARDS

Scale 1:50



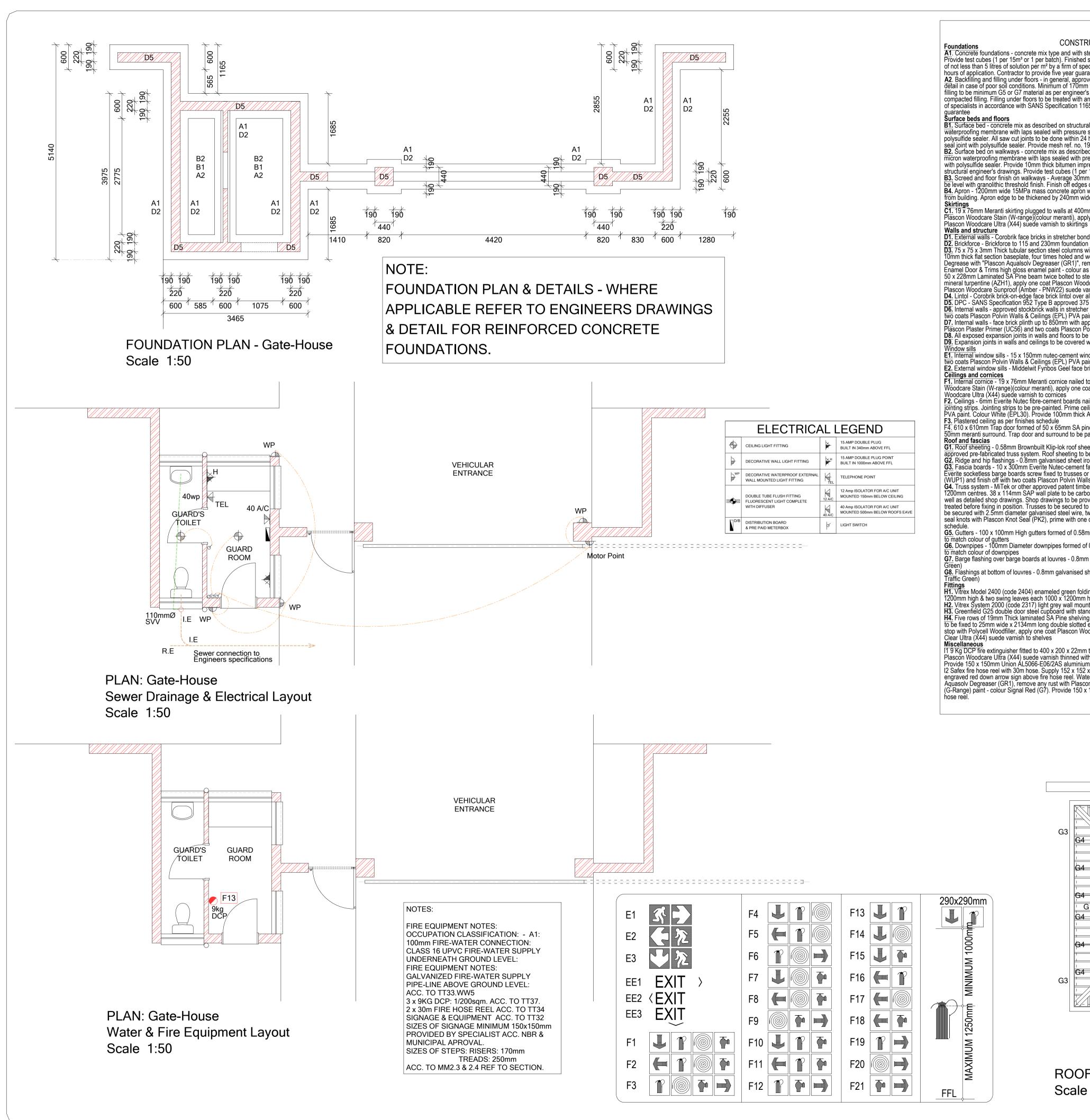
#### NOTES :

 Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400
 Light Switch in Disabled toilet to be at 1200 mm above FFL
 If Step over 900 mm Build in Balustrade
 Gulley positions to be determined as per site prescribed overall drainage design 5) 2 x coats sealant on all exposed trusses markings) 6) 50 mm mineral wool insulation to be installed where there are ceilings Bubble plastic insulation with foil backing to be installed with wire supports all areas that do not have ceilings 7) West Facing Facades to have standardised aluminium louvres from eaves to drop of 1200 mm 8) Trusses to be designed in accordance with SABS 0400 & approved Project Engineers

#### **ISSUED FOR TENDER**

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# CONSTRUCTION NOTES

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawings. Top Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of the F of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SANS Co

A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density in layers detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground level unde filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per solution tests of the provided the provided the provided to be provided to a rate of one test per solution. compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied at a of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted within 2

B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specificati waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 2 polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitumen impregate seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings but minimum 85mm thick on SANS Specification of the seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 1982. Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS multiple sealer and the sealed with pressure constitue tape. Surface bed cast in alternative sections of maximum 2 minimum 85mm thick on SANS sections of the sealer of the seale

 Difference and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards edges. At be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool **B4.** Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative sections in level trom building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished ground

Skirtings C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand down to a Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below cop

Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule. 50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Wood

mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 min Plascon Woodcare Sunproof (Amber - PNW22) suede varnish D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finishe

two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coa Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes sched **D8.** All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces ha **D9.** Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one c two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule
 E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recess

**Ceilings and cornices** F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish. Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral t Woodcare Ultra (X44) suede varnish to cornices

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings **F3.** Plastered ceiling as per finishes schedule

4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be form

**G1.** Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAI approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee **G2.** Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Glob **G3.** Fascia boards - 10 x 300mm Everite Nutec-cement fascia boards screw fixed to truss ends and counter batten with coun Everite socketless barge boards screw fixed to trusses or purling with counters barge boards screw fixed to trusses or purling with counters barge boards and barge bo

WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule. 34. Trúss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certification of the ce well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All si treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into wall be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All expose seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Ena

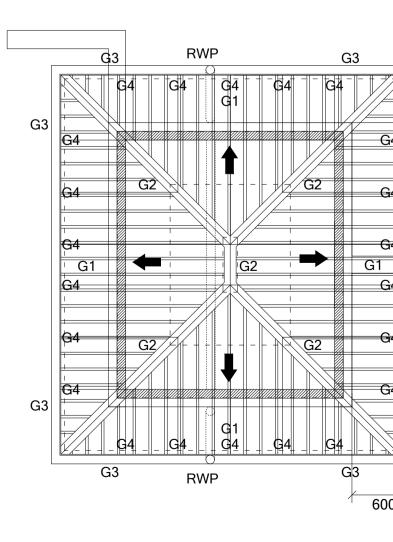
G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok S to match colour of gutters **G6.** Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsl

37. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge

G8. Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and

**Fittings H1.** Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200m 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
 H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four sh
 H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZI Clear Ultra (X44) suede varnish to shelves

Miscellaneous 11 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smoc Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plas Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red dr 12 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose provide red down errow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild st engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild s Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL506



## **ROOF PLAN: Gate-House** Scale 1:50

p of strip footings to be 340mm minimum below N.G.L. Prothor 200 SC or other approved type applied at a rate code of Practice 0124. Concrete to be casted within 24 ters of maximum 150mm - refer to engineer's drawings for ider floors. All filling to be approved by engineer (imported per 125m ² filling area under floors per each layer of 150mm a rate of not less than 5 litres of solution per m ² by a firm . 24 hours of application. Contractor to provide five year cation 952 Type C approved USB Green 250 micron m 20m ² with saw cut joints with joints filled up with regnated soft board between all walls and concrete and r 15m ³ or 1 per batch) SANS Specification 952 Type C approved USB Green 250 maximum 20m ² with expansion joints with joints filled up with polysulfide sealer. Provide mesh ref. no. 193 as per At all external door openings external surface beds must a smooth finish, stop with Polycell Woodfiller, stain with .3 mineral turpentine (AZH1) and apply two finishing coats e. Over openings formed in brickwork as per table below et, 200mm long, twice holed and welded to top, 200 x 200 x opings with four M10 x 75mm masonry anchor bolts. n Metal Primer (UC501) and apply two coats Plascon odfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats ed joints the of fill with one coat Plascon Plaster Primer (UC56) and a) as per Principal Agent at smooth 1:5 cement plaster finished off with one coat eduel. have been primed with Urochem 614 primer	<ul> <li>1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400</li> <li>2) Light Switch in Disabled toilet to be at 1200 mm above FFL</li> <li>3) Tisep over 900 mm Build in Balustrade</li> <li>4) Gulley positions to be determined as per site prescribed overall drainage design</li> <li>5) 2 x coats sealant on all exposed trusses (sand off all SABS &amp; other markings)</li> <li>6) 60 mm mineral wool insulation to be installed where there are ceilings</li> <li>7) West Facing Facades to have standardised aluminium louves from below eases to drop of 1200 mm</li> <li>8) Trusses to be designed in accordance with SABS 0400 &amp; approved by Project Engineers</li> </ul>
the coat Plascon Multi-surface Primer (WUP1) and apply essed joints wh, stop with Polycell Woodfiller, stain with Plascon al turpentine (AZH1) and apply two finishing coats Plascon with galvanised clout nails. Provide H-profile galvanised sh off with two coats Plascon Polvin Walls & Ceilings (EPL) with ceiling board and fitted flush in opening. Provide 18 x med with 38 x 114mm SA pine bearers, nailed to trusses SAP purlins at maximum 1200mm centres on patent and lobalcoat finish (colour Traffic Green) untersunk brass screws. Barge boards - 200 x 80mm boards with one coat Plascon Multi-Surface Primer 20 degrees pitch. 50 x 76mm SAP purlins at maximum icate and guarantee for design and erection of trusses as I sections in contact with wet trades to be carbolineum alls minimum 6 courses. Purlins nailed to trusses must also sed parts of trusses, purlins, etc. to be sanded smooth, namel Doors & Trims paint. Colour as per finishes Sand). All brackets, etc. to be pre-coated with Globalcoat e or gable flashing with Globalcoat finish (colour Traffic et GK7 counter flashing with Globalcoat finish (colour Dmm high, two wall mounted side boards each 1000 x shelves (2 per classroom) wide Shelco epoxy powder coated steel brackets. Brackets IIs at maximum 600mm c/c. Sand down to a smooth finish, ZH1) then apply two finishing coats Plascon Woodcare mooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish to back plate. d down arrow sign above fire extinguisher hose reel sign & Union Al5066-06ASE08 aluminium is steel. Degrease exposed parts of pipes with Plascon ) and apply two coats Plascon Enamel Doors & trims J66-E08/2AS aluminium red down arrow sign above fire	ISSUED FOR TENDER         DISCIPLINE       SIGNATURE       DATE         CLIENT       Internation       Internation         FIRE CONTROL       Internation       Internation         ENVIRONMENTAL OFFICER       Internation       Internation         WATER AND SANITATION       Internation       Internation         WATER AND SANITATION       Internation       Internation         REV No       DATE       DESCRIPTION :         REVISIONS       SIZE ON ORIGINAL DRAWING 100 mm       Internation         Internation       Internation       Internation         Internation       SIZE ON ORIGINAL DRAWING 100 mm       Internation         Internation       Internation       Internation         Internati
G3 G3 G3 G3	EDUCATION         INSTITUTION         INSTITUTION         MOKHARI SECONDARY SCHOOL         INSTITUTION EMIS NUMBER         906121051       SERVICE         NEW BUILDINGS         CONTRACT - SECTION         DOCUMENTATION & PROCUREMENT         DISCIPLINE         PROJECT STAGE         ARCHITECTURAL         A         WORK DESCRIPTION - SUB DIVISION         GUARD HOUSE         DRAWING DESCRIPTION         FUE NO.         DRAWING DESCRIPTION         DRAWING DESCRIPTION         DRAWING DESCRIPTION         DESCRIPTION SEWER, FIRE AND ROOF         FILE NO.         DRAWING CO-ORDINATED         DRAWING
	SYSTEM     AUTO CAD     NAME       SIZE     DRAWING NUMBER     REV2       A 1     2020_67-GH-003     A

NOTES

DOOR SCHEDULE: Scale 1:50.		978 32 914 1 1 1 1 1 1 1 1 1 1 1 1 1	
DOOR NUMBER:	D1	D2	
POSITION:	BULK STOREROOM, DAY STORE	ENTRANCE TO TOILET	
QUANTITY:			-
	1 (1=LH) (0 = RH) 1,2mm THICK STANDARD STEEL DOUBLE REBATED	1 (0 = LH) (1 = RH) 1.2mm THICK STANDARD STEEL DOUBLE REBATED	_
DOOR-FRAME DESCRIPTION:	DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE	DOORFRAME FOR 115MM WALL TO RECEIVE PLASTER ON ONE-SIDE	
	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL	1/RED OXIDE PRIMER + 1/COAT UNIVERSAL	
FINISHES:	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT - COLOUT TO ARCHITECT.	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL PAINT, - COLOUT TO ARCHITECT.	
DOOR	2032 x 914 x 44mm THICK SOLID HARDWOOD	2032 x 914 x 40mm SOLID	-
DESCRIPTION:	DOOR WITH MASONITE BACKING. tYPE OF HARDWOOD DOOR ACCORDING TO OWNERS CHOICE.	HARDWOOD DOOR WITH MASONITE FACINGS TO RECEIVE 1/COAT UNDERCOAT + 2/COATS PLASCON VELVAGLO PAINT.	
IRON MONGERY:	HINGES - 2x100mm M/S STEEL BUTT HINGES PER DOOR	HINGES - 2x100mm M/S STEEL BUTT PER DOOR	-
FITTINGS:	LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.	LEAF LOCKSET - "SOLID BLESBOK" 460/313 FOUR LEVER LOCKSET.	
FINISHES:	PREPARE NEW DOOR & FRAME TO RECEIVE ONE UNDERCOAT PLUS 3/COATS POLYURETHANE VARNISH.	1/UNDERCOAT + 2/COATS PLASCON VELVAGLO PAINT FINISH.	_
GLASS:	NOT APPLICABLE	NOT APPLICABLE	
ш ш			
WINDOW SCHEDULE Scale 1:50.			2185
WINDOW NUMBER:			W:
POSITION:	GUARD ROOM	GUARD ROOM	TOILE
QTY: WINDOW-FRAME DESCRIPTION:	1 STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-FRAME CATALOGUE NUMBER (TBC) COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	2 STANDARD SS INDUSTRIAL TYPE STEEL WINDOW-FRAME CATALOGUE NUMBER (TBC) COMPLETE WITH FITTINGS AS SUPPLY BY MANUFACTURER	2 STANDA CATALO AS SUPP
WINDOW FURNITURE:	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.	IRON-MONGERY & FITTINGS AS SUPPLY BY WINDOW MANUFACTURER. AND ACCORDING TO ARCHITECTS APPROVAL.	IRON-M WINDO TO ARC
BURGLAR-BARS: FINISHES:	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL	OUT OF 10mm WIDE FLAT-BARS 1/COAT RED OXIDE PRIMER + 1/COAT UNIVERSAL	OUT OF 1/COAT
	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL	UNDERCOAT + 2/COATS PLASCON GLOSS ENAMEL	UNDER PAINT -
GLASS:	4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS APPROVED GLAZING PUTTY	5mm TH GLAZIN APPRO
GLASS:	PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS	PAINT - COLOUR ACCORDING TO ARCHITECT. 4mm THICK CLEAR FLOATED SHEET GLAZING SECURED IN FRAME WITH SABS	PAINT 5mm GLAZ

#### CONSTRUCTION NOTES

A1. Concrete foundations - concrete mix type and with steel reinforcement according to structural engineer's drawing Provide test cubes (1 per 15m³ or 1 per batch). Finished sides and bottoms of trenches to be treated with ant poison of not less than 5 litres of solution per m² by a firm of specialists in accordance with SANS Specification 1165 and SA

A2. Backfilling and filling under floors - in general, approved filling compacted to at least 93% Mod. AASHTO density i detail in case of poor soil conditions. Minimum of 170mm filling to be provided above natural or compacted ground lev filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be provided at a rate of one compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied to the provided at a rate of one compacted filling. Filling under floors to be treated with ant poison of the Prothor 200 SC or other approved type applied to the provided tother provided tother provided to the provided to the provided to of specialists in accordance with SANS Specification 1165 and SANS Code of Practice 0124. Concrete to be casted

guarantee Surface beds and floors B1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS S D1. Surface bed - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS S waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative sections of m polysulfide sealer. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick bitume seal joint with polysulfide sealer. Provide mesh ref. no. 193 as per structural engineer's drawings. Provide test cubes **B2.** Surface bed on walkways - concrete mix as described on structural engineer's drawings but minimum 85mm thic

B2. Surface bed on waikways - concrete mix as described on structural engineer's drawings but minimum osmin thick micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed cast in alternative section with polysulfide sealer. Provide 10mm thick bitumen impregnated soft board between all walls and concrete and seal structural engineer's drawings. Provide test cubes (1 per 15m³ or 1 per batch)
 B3. Screed and floor finish on walkways - Average 30mm thick wood floated 1:4 granolithic screed sloping towards end be level with granolithic threshold finish. Finish off edges of screed smooth with edging tool
 B4. Apron - 1200mm wide 15MPa mass concrete apron with wood floated finish. Apron to be cast in alternative section with wood floated finish. Apron to be cast in alternative section with wood floated finish. Apron to be cast in alternative section be wilding tool.

from building. Apron edge to be thickened by 240mm wide x 115mm deep (net) edge excavated in natural or finished

Skirtings C1. 19 x 76mm Meranti skirting plugged to walls at 400mm c/c with 19mm meranti quadrand bead plated on. Sand do Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned v Plascon Woodcare Ultra (X44) suede varnish to skirtings Walls and structure

D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below D3. 75 x 75 x 3mm Thick tubular section steel columns with 250mm girth x 4.5mm thick flat section U-shaped fixing bracket, 200mm long, twice holed and welded to top, 200 x 200 10mm thick flat section baseplate, four times holed and welded to bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with "Plascon Aqualsolv Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Engened Degre 4. Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.

50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed joints D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent
 D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat smooth 1:5 cement plaster Primer (UC56) and Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.
 D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migua KF250/30 aluminium cover strips

Window sills E1. Internal window sills - 15 x 150mm nutec-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule E2. External window sills - Middelwit Fynbos Geel face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed joints

Ceilings and cornices F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon

F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings

**F3.** Plastered ceiling as per finishes schedule F4. 610 x 610mm Trap door formed of 50 x 65mm SA pine rebated frame with 38 x 38mm SA pine cross brander covered with ceiling board and fitted flush in opening. Provide 18 x 50mm meranti surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses

 Boon and surround. They door and surround to be painted to G3. Fascia boards - 10 X 300mm Evente Nutec-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Barge boards - 200 X 80mm Evente socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.
 G4. Truss system - MiTek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch. 50 x 76mm SAP purlins at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes

schedule. G5. Gutters - 100 x 100mm High gutters formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All brackets, etc. to be pre-coated with Globalcoat

to match colour of gutters G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic

**G8.** Flashings at bottom of louvres - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

Fittings H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom) H3. Greenfield G25 double door steel cupboard with standard baked enameled finish. 760 x 610 x 1700mm high with four shelves (2 per classroom) H4. Five rows of 19mm Thick laminated SA Pine shelving. 350mm wide, evenly spaced & fixed from underside to 305mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 2134mm long double slotted epoxy powder coated Shelco type FT6 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves Miscellaneous

19 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union Al5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fhr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire

+ 1022 + ARD E-TYPE TOP-HUNG STEEL WINDOW-FRAME OGUE NUMBER (TBC) COMPLETE WITH FITTINGS PPLY BY MANUFACTURER IONGERY & FITTINGS AS SUPPLY BY W MANUFACTURER. AND ACCORDING HITECTS APPROVAL.

10mm WIDE FLAT-BARS RED OXIDE PRIMER + 1/COAT UNIVERSAL COAT + 2/COATS PLASCON GLOSS ENAMEL COLOUR ACCORDING TO ARCHITECT. HICK PACIFIC OBSCURED G SECURED IN FRAME WITH SABS OVED GLAZING PUTTY

ngs. Top of strip footings to be 340mm minimum below N.G.L. n of the Prothor 200 SC or other approved type applied at a rate SANS Code of Practice 0124. Concrete to be casted within 24
ty in layers of maximum 150mm - refer to engineer's drawings for evel under floors. All filling to be approved by engineer (imported ne test per 125m ² filling area under floors per each layer of 150mm plied at a rate of not less than 5 litres of solution per m ² by a firm d within 24 hours of application. Contractor to provide five year
Specification 952 Type C approved USB Green 250 micron naximum 20m ² with saw cut joints with joints filled up with en impregnated soft board between all walls and concrete and is (1 per 15m ³ or 1 per batch) ick on SANS Specification 952 Type C approved USB Green 250 ons of maximum 20m ² with expansion joints with joints filled up al joint with polysulfide sealer. Provide mesh ref. no. 193 as per
edges. At all external door openings external surface beds must
tions in lengths of maximum 3m and to have a 1:100 fall away ad ground level
down to a smooth finish, stop with Polycell Woodfiller, stain with I with 1:3 mineral turpentine (AZH1) and apply two finishing coats
course. Over openings formed in brickwork as per table below bracket 200mm long, twice holed and welded to top, 200 x 200 x

NOTES
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1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400 2)Light Switch in Disabled toilet to be at 1200 mm above FFL 3) If Step over 900 mm Build in Balustrade 4) Gulley positions to be determined as per site prescribed overall drainage design 5) 2 x coats sealant on all exposed trusses (sand off all SABS & other markings ) 6) 50 mm mineral wool insulation to be installed where there are ceilings . Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings 7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers Project Engineers

#### ISSUED FOR TENDER

SIGNATURE TABLE				
DISCIPLINE			SIGNATURE	DATE
CLIENT				
PLAN EXAM	NER			
FIRE CONTR	OL			
ENVIRONME	NTAL OFFICE	R		
ROADS / STO	ORMWATER			
WATER AND	SANITATION			
ENVIRONME	NTAL OFFICE	R		
REV No	DATE :		DESCRIPTION	l:
			REVISIONS	



# EDUCATION

INSTITUTION

MOKHARI SECONDARY SCHOOL

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	INST	TUTION EMIS NUMBER				
90	6121051					
	SERV	/ICE				
	W BUILDINGS					
	CONTRACT	- SECTION				
	DCUMENTATION 8		/			
	DISCIF		PROJECT STAGE			
	ARCHITE	CTURAL	4			
	WORK DESCRIPTIC	N - SUB DIVISION				
	<b>GUARD HOL</b>	JSE				
DRAWING DESCRIPTION						
WI	NDOW AND DO	OR SCHEI	DULES			
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DESIGN			DRAWN			
SCALE	1: 100		CHECKED			
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2023.06.20	) YUSUF VAHED	apple	PA7812			
	DRAWING CO	-ORDINATED				
<u> </u>	CONSULT	ANT :				
	6 Ismini Street, Polok Tel: +27 15 065 0645 Email: info@rub	mini Office Building, wane, D699 South Africo , Fax: +27 11 475 836 penreddyarch.co.za enreddyarch.co.za				

DRAWING NUMBER

2020 67-GH-004

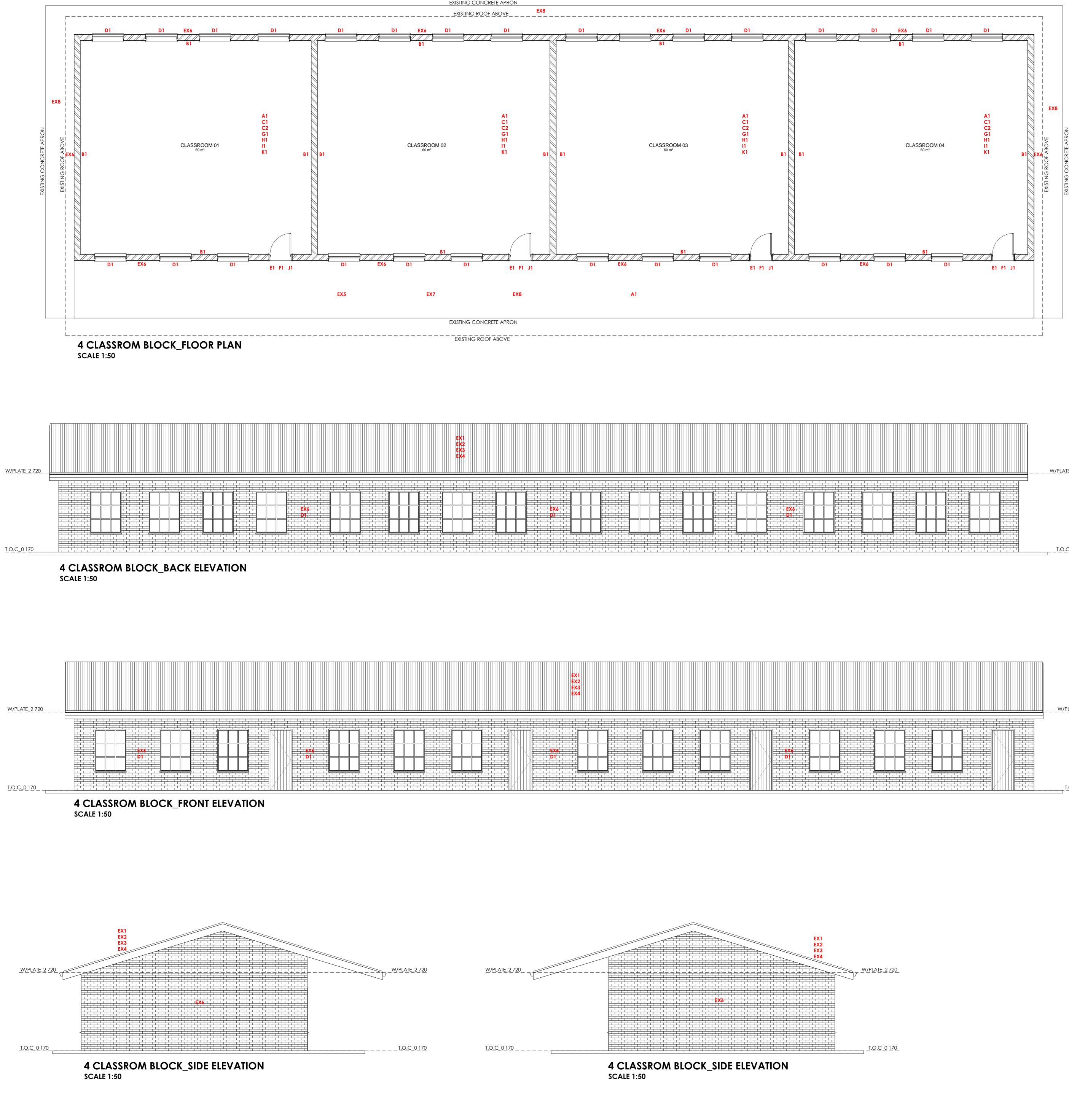
AUTO CAD

|A 1

FILE NAME

REV2

А





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# REFURBISHME

RENOVATIONS.

 <u>A1- CEILING</u> Take down and remove existing damaged ceilings complete with cornices, brandering, hangers, etc., from trusses to remain and replace with 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm APPROVED BY PROJECT ENGINEER centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices

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H1 - WRITING BOARD Vitrex System 1000 folding type vitreous enamel steel wall mounted school chalk board, overall size 1140 mm high x 3600 mm long, reference (1019), consisting of one fixed centre board size 1140 mm high x 1800 mm long, two fixed side boards each size 1140 mm high x 900 mm long and two swing leaves each size 1140 mm high x 900 mm long. One swing leaf (LH) including white 50 x 50 mm squares, reference (1021), permanently screened on to the rear face and the other swing leaf (RH) to have white lines spaced at 50 mm centres, reference (1025), permanently screened on to rear face. Board supplied complete with continuous Aluminium Chalk Rail (ACR), fixing components and secured in position to brickwork. **<u>I1 - PINING BOARDS</u>** Vitrex System 2000 Pin Boards overall size 1140 mm high x 4800 mm long to consist of Flortime Premier pinning material / Belgotex Colour-Rib carpet surface laminated to a soft board core, the unit to be beaded all around with a natural anodised Aluminium channel surround mitered at the corners. Colour of the pinning material / carpet surface (2) to be [Colour name] (3) as selected by the Architect from the relevant standard colour range. Pin Boards supplied complete with necessary fixing components and fixed in position strictly

in accordance with the manufacturer's instructions. <u>J1 - DOOR STOPPER</u> DDS-NP-018 nickel plated door stop. <u>K1 - SANITARY WARE</u> ALL Sanitaryware is to be replaced.

Toilet seats need to be installed. Plumbing to be checked and replaced or repaired where required. All external plumbing to be checked and replaced where needed. **EXTERNA** EX1 - Remove and replace roof sheets as per specification Take down and remove existing IBR roof coveringLay 0,8mm Thick Saflok/Kliplok 700 G4 Colortech aluminium interlocking roof 3) wafer head self-tapping fasteners with insulation including

covering fixed to purlins including approved stainless steel (Class rainwater goods on existing structure. EX2 - Install new fascia boards Everite medium density plain ungrooved Nutec fascia boards (Code: 41-202), size 225 x 12mm, fixed to 38 x 38mm tilter batten and 38 x 38mm support battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with PVC Hprofile fascia joiner between boards and PVC H-profile fascia corner joiners at board ends.

EX3 - Install new barge boards Everite moulded Nutec moulded barge boards (Code: 721-740), size 275 x 80mm, fixed to 38 x 38mm trimmer batten twice screwed with 12 x 40mm countersunk brass screws with PVC H-profile barge board joiners between boards and at roof apex. • **EX4 - Install new gutters and down pipes** Pre-coated aluminum

seamless gutter, size 150 x 100 x 0,6mm thick in colour Marble White including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 600mm centres with rectangular fluted downpipes, size 100 x 75 x 0,6mm thick in colour Marble White fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings. EX5 - Verandah floor finish Hack up/off and remove, repair • cracks out in granolithic finish, wet thoroughly and fill in with semidry 3:1 cement mortar well caulked. Pavelite' or other approved self-levelling screed on concrete.

EX6 - Clean face brick Clean down surfaces of face brick walls ٠ externally with a high pressure hose and a solution of 'Enterprise Cleaning Brick Cleaner' or similar approved and wash down with clean water. Existing painted bricks to be cleaned and re painted to match existing EX7 - Wheelchair Access:

Existing rams to be refurbished and made good. New wheelchair access ramp to be installed where needed. Existing stairs to be made good. **EX8 - Concrete Apron** Clean down surfaces of apron externally with a high pressure hose and a solution of 'Enterprise Cleaning Brick Cleaner' or similar approved and wash down with clean water. Fix damaged concrete portions as per engineers specifications.

NOTE :

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NT SCHEDULE
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This schedule is provisional because each block will have to be based on site inspection and block type. ALL SPECIFICATIONS AND QUANTITIES TO BE CONFIRMED WITH QS AND ARCHITECT PRIOR TO PROCUREMENT. PROOF OF DAMAGED PORTIONS TO BE TAKEN NOTE OF WITH PICTURES PRIOR TO

 <u>B1 - WALLS</u> Repair and brush to remove all loose contaminants, fill existing cracks with crack filler apply one coat Masonry Sealant', one coat Masonry Primer' and two coats Super Acrylic' or other approved paint. Replace all broken / missing bricks to match existing.

C1 - FLOOR Hack up/off and remove ,repair cracks out in granolithic finish, wet thoroughly and fill in with semi-dry 3:1 cement mortar well caulked. 'Pavelite' or other approved selflevelling screed on concrete: remove existing vinyl tile floor prepare floor to receive approved self-levelling screed finished with 300 x 300 x 2,5mm vinyl tiles or other approved semi-flexible vinyl flooring.

**<u>C2 -SKIRTING</u>** Take up and remove defective skirting and replace with 19 x 70mm Skirting including 19mm quadrant bead nailed.

**<u>D1 - WINDOWS</u>** Clean down existing steel windows and apply two coats Polyurethane Enamel' on existing enamel painted surfaces. Service and overhaul sash of steel window, including oiling and easing hinges, etc. retain existing burglar bars. Cracked glass in some places to be replaced.

Window putty to be inspected and replaced where required. Burglar bars to be treated for rust and repainted. All ironmongery is to be replaced.

**<u>E1 - DOOR FRAME</u>** Remove and replace existing door frame with DUROWIN or equal and approved single rebated with one shop coat red oxide pressed door frame 1,6 mm thick to 2032mm high door for 230m wall supplied with 1 pair welded steel hinges.

F1 - DOOR Remove and repair existing door by Sand down, repair with wood tiller and repaint reinstall as per door schedule, replace damaged doors with new doors.

G1 - STATIONARY CABINET Demolish existing masonry cabinet remove door and frame then, Provide School Type 4 shelf metal lockable stationery cabinet 540707IK lvory/ Karoo size 450 x 900 x 1 800mm high, bolted four times to wall with masonry expansion bolts.

ALL DIMENSIONS TO BE CONFIRMED ON SITE

ALL MECHANICAL AND ELECTRICAL SPECIFICATIONS TO ENGINEERS DETAIL AND APPROVAL

ALL SHOP DRAWINGS TO BE SENT TO ENGINEERS AND ARCHITECTS FOR APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION

#### GENERAL DRAWING NOTES

) RKMANSHIP TO COMPLY WITH STANDARD SPECIFICATION OF MATERIALS AND METHODS TO BE USED - sabs 0400 2) IIGHT SWITCH IN DISABLED TOILET TO BE AT 1200MM ABOVE

3) IF STEP OVER 900MM BUILD IN BALUSTRADE 4) GULLEY POSITIONS TO BE DETRMINED AS PER SITE PRESCRIBED

OVERALL DRAINAGE DESIGN 5) 2 X COATS SEALANT O ALL EXPOSED TRUSSES (SAND OFF ALL abs & OTHER MARKINGS)

6) 50MM MINERAL WOOL INSULATION TO BE INSTALLED WHERE THERE ARE CEILINGS. BUBBLE PLASTIC INSULATION WITH FALL BACKING TO BE INSTALLED WITH WIRE SUPPORTS IN ALL AREAS

THAT DO NOT HAVE CEILINGS 7) WEST FACING FACADES TO HAVE STANDARDISED ALUMINIUM OUVRES FROM BELOW EAVES TO DROP OF 1200MM

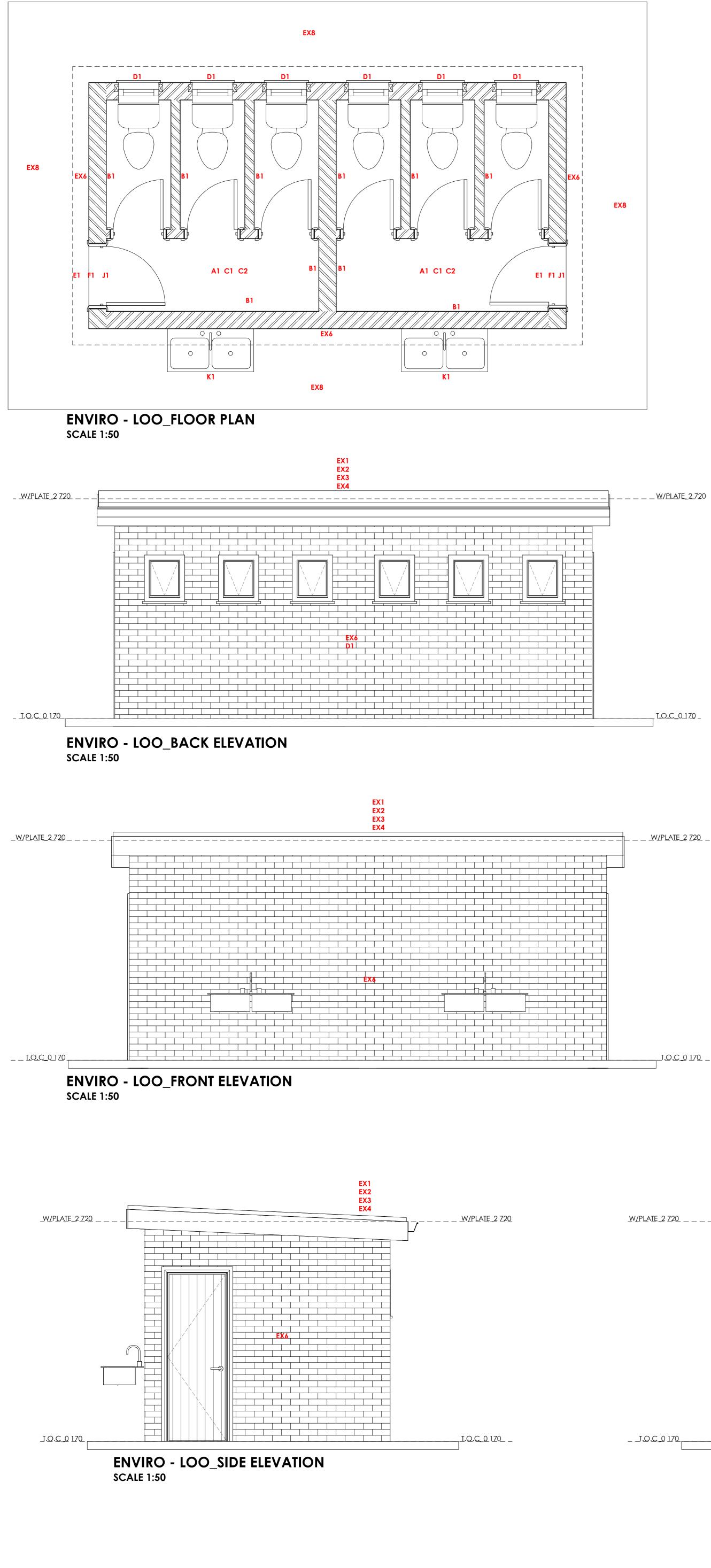
8) TRUSSES TO BE DESIGNED IN ACCORDANCE WITH SABS 0400 &

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EX2 EX3 <u>W/PLATE_2720</u> W/PLATE_2 720 _____ EX6 ENVIRO - LOO_SIDE ELEVATION

SCALE 1:50

REFURBISHM

RENOVATIONS.

 <u>A1- CEILING</u> Take down and remove existing damaged ceilings complete with cornices, brandering, hangers, etc., from trusses to remain and replace with 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm APPROVED BY PROJECT ENGINEER centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44),

thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices

Sealant', one coat Masonry Primer' and two coats Super Acrylic' or other approved paint. Replace all broken / missing bricks to match existing. <u>**C1 - FLOOR**</u> Hack up/off and remove ,repair cracks out in • granolithic finish, wet thoroughly and fill in with semi-dry 3:1 cement mortar well caulked. 'Pavelite' or other approved selflevelling screed on concrete: remove existing vinyl tile floor prepare floor to receive approved self-levelling screed finished with 300 x 300 x 2,5mm vinyl tiles or other approved semi-flexible vinyl flooring.

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H1 - WRITING BOARD Vitrex System 1000 folding type vitreous enamel steel wall mounted school chalk board, overall size 1140 mm high x 3600 mm long, reference (1019), consisting of one fixed centre board size 1140 mm high x 1800 mm long, two fixed side boards each size 1140 mm high x 900 mm long and two swing leaves each size 1140 mm high x 900 mm long. One swing leaf (LH) including white 50 x 50 mm squares, reference (1021), permanently screened on to the rear face and the other swing leaf (RH) to have white lines spaced at 50 mm centres, reference (1025), permanently screened on to rear face. Board supplied complete with continuous Aluminium Chalk Rail (ACR), fixing components and secured in position to brickwork.

**<u>II - PINING BOARDS</u>** Vitrex System 2000 Pin Boards overall size 1140 mm high x 4800 mm long to consist of Flortime Premier pinning material / Belgotex Colour-Rib carpet surface laminated to a soft board core, the unit to be beaded all around with a natural anodised Aluminium channel surround mitered at the corners. Colour of the pinning material / carpet surface (2) to be [Colour name] (3) as selected by the Architect from the relevant standard colour range. Pin Boards supplied complete with necessary fixing components and fixed in position strictly in accordance with the manufacturer's instructions.

<u>EXTERNA</u>

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EX3 - Install new barge boards Everite moulded Nutec moulded barge boards (Code: 721-740), size 275 x 80mm, fixed to 38 x 38mm trimmer batten twice screwed with 12 x 40mm countersunk brass screws with PVC H-profile barge board joiners between boards and at roof apex.

• **EX4 - Install new gutters and down pipes** Pre-coated aluminum seamless gutter, size 150 x 100 x 0,6mm thick in colour Marble White including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 600mm centres with rectangular fluted downpipes, size 100 x 75 x 0,6mm thick in colour Marble White fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings. EX5 - Verandah floor finish Hack up/off and remove, repair ٠ cracks out in granolithic finish, wet thoroughly and fill in with semidry 3:1 cement mortar well caulked. Pavelite' or other approved self-levelling screed on concrete.

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J1 - DOOR STOPPER DDS-NP-018 nickel plated door stop.

## <u>K1 - SANITARY WARE</u>

ALL Sanitaryware is to be replaced.

Toilet seats need to be installed. Plumbing to be checked and replaced or repaired where required. All external plumbing to be checked and replaced where needed.

EX1 - Remove and replace roof sheets as per specification Take down and remove existing IBR roof coveringLay 0,8mm Thick Saflok/Kliplok 700 G4 Colortech aluminium interlocking roof covering fixed to purlins including approved stainless steel (Class 3) wafer head self-tapping fasteners with insulation including rainwater goods on existing structure.

EX2 - Install new fascia boards Everite medium density plain ungrooved Nutec fascia boards (Code: 41-202), size 225 x 12mm, fixed to 38 x 38mm tilter batten and 38 x 38mm support battens between rafters twice screwed with 12 x 40mm countersunk brass screws at 900mm centres to support battens with PVC Hprofile fascia joiner between boards and PVC H-profile fascia corner joiners at board ends.

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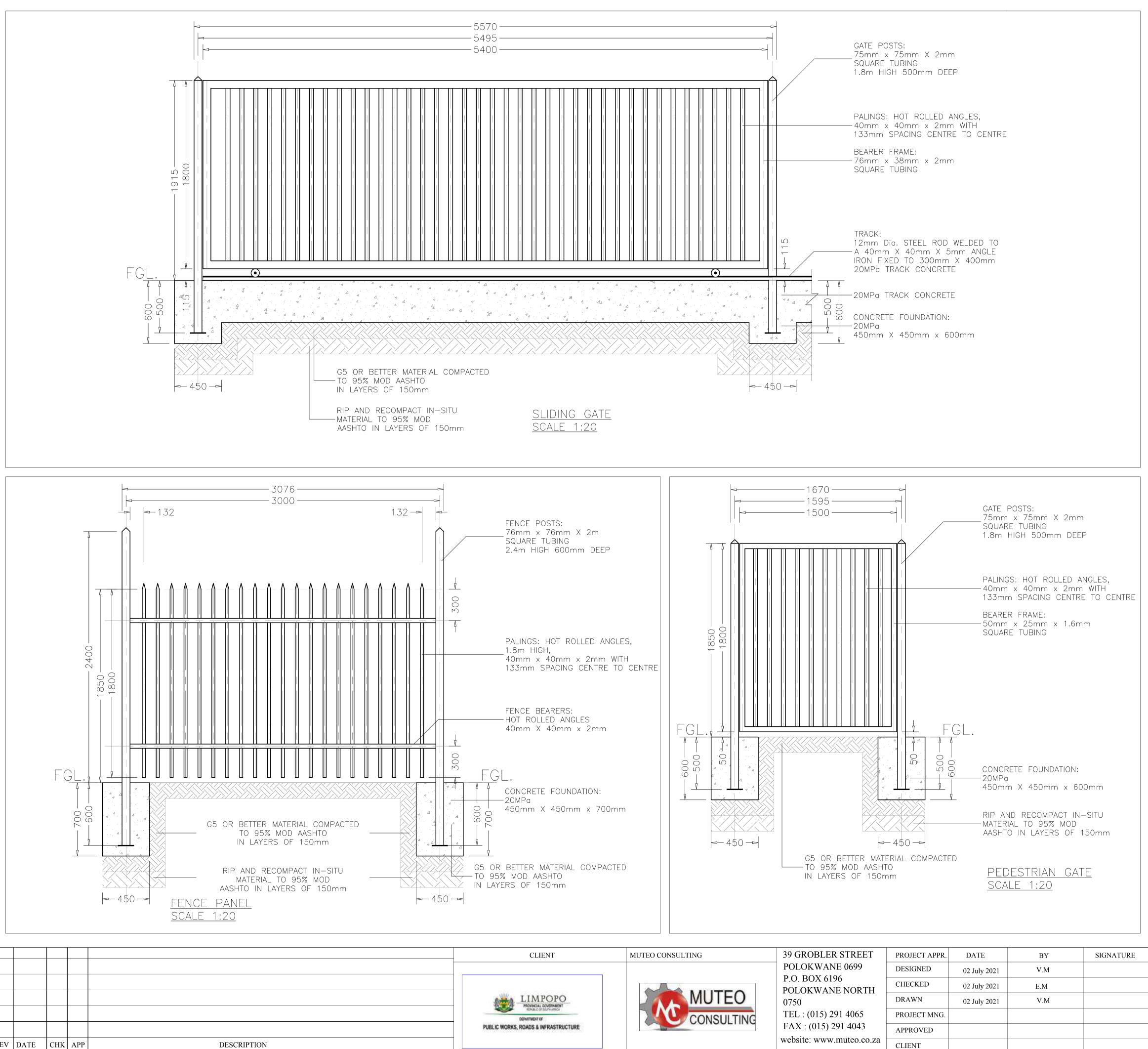
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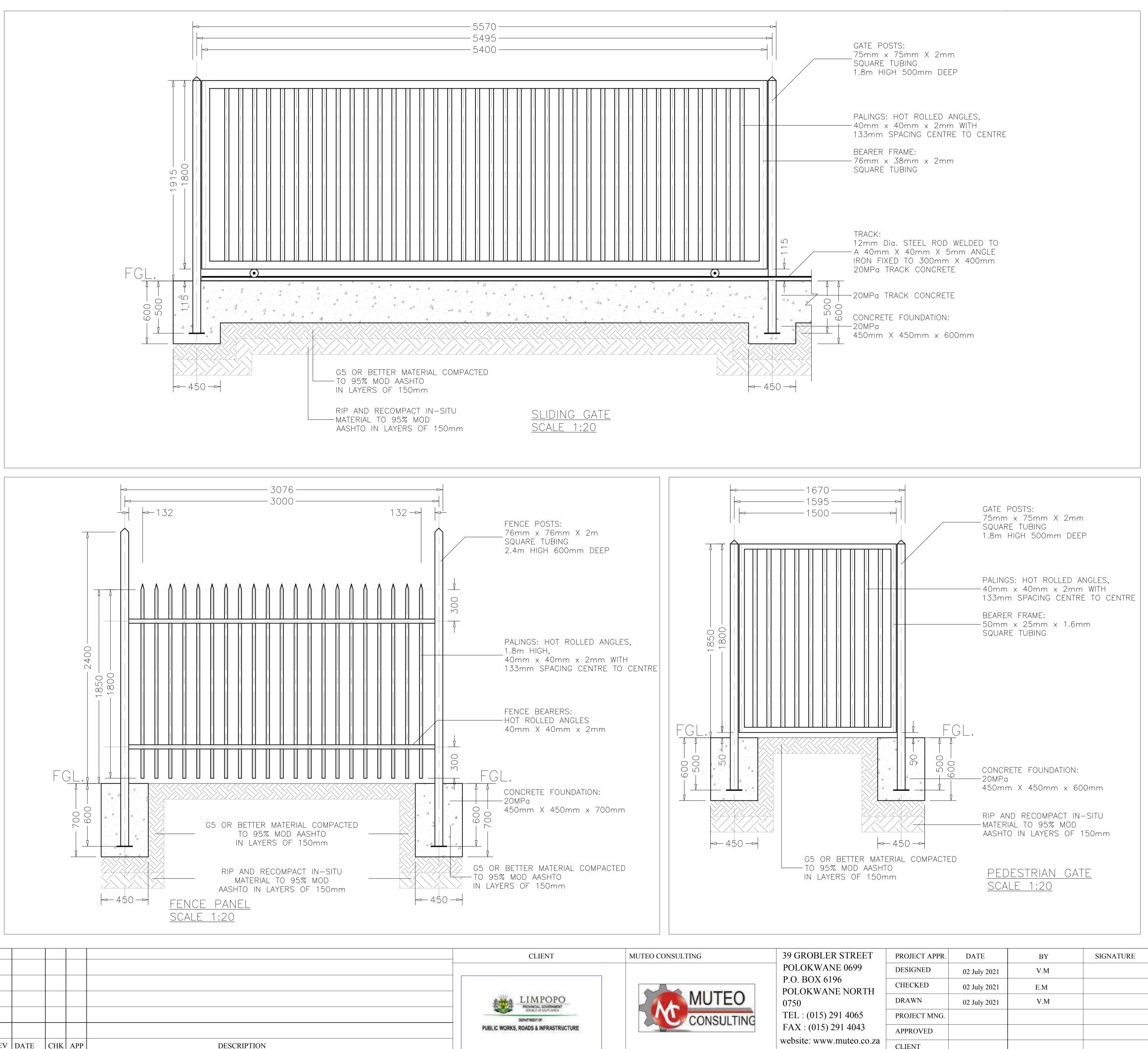
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# **ISSUED FOR TENDER**

## <u>NOTES.</u>

<u>Panels: 1.8 x 3m</u>

- 1. Fence bearers:
- $\cdot$  40 x 40 x 2mm angle iron. These are to be placed 300mm from top of paling and 300mm from bottom of paling. (350mm from ground level).
- These are to be welded flash with the back of the post.
- 2. Palings "Devil fork"
- $\cdot$  21 palings per panel.
- $\cdot$  30 x 30 x 2mm steel angle iron paling 1.8m high.
- Palings to be inserted and firmly welded to the bearers at 133mm centre to centre.
- Top of the paling to provide a "Devil Fork" effect and the bottom will have a dove tail.

3. Posts:

- $\cdot$  76 x 76 x 2 mm steel square tubing with closing pyramid
- caps on top. • Post must 2.4m high and 600mm will planted into concrete footing.

<u>Palisade Gates</u>

- 1. Sliding Gate:
- $\cdot$  5/4 m wide x 1.8 m high. 40 x 40 x 2 mm angle iron palings welded to a 76 x 38x 2mm rectangular tubing bearer frame.
- Palings to be placed at 133 mm apart from each other centre to centre.
- Gate to be provided with 2 x 80mm roller coaster wheels fitted with ball bearing. These are to be fitted 500mm from edge of the gates.
- Gate to be provide with proper closing and guidance mechanism.
- Track is to be 12 mm steel rod welded to a 40 x 40 x 5mm angle iron fixed into a 300 wide x 400 thick x 5m length of the gate (track concrete to engineer's design).
- Gate Post: 75mm x 75mm 2mm steel square tubing post is to be provided on each side of gate opening with closing pyramid caps on top.
- Post to be founded in a concrete footing 450 x 450 x 600 deep. Concrete strength to be 20Mpa (minimum) at 28 days.

2. Pedestrian gate:

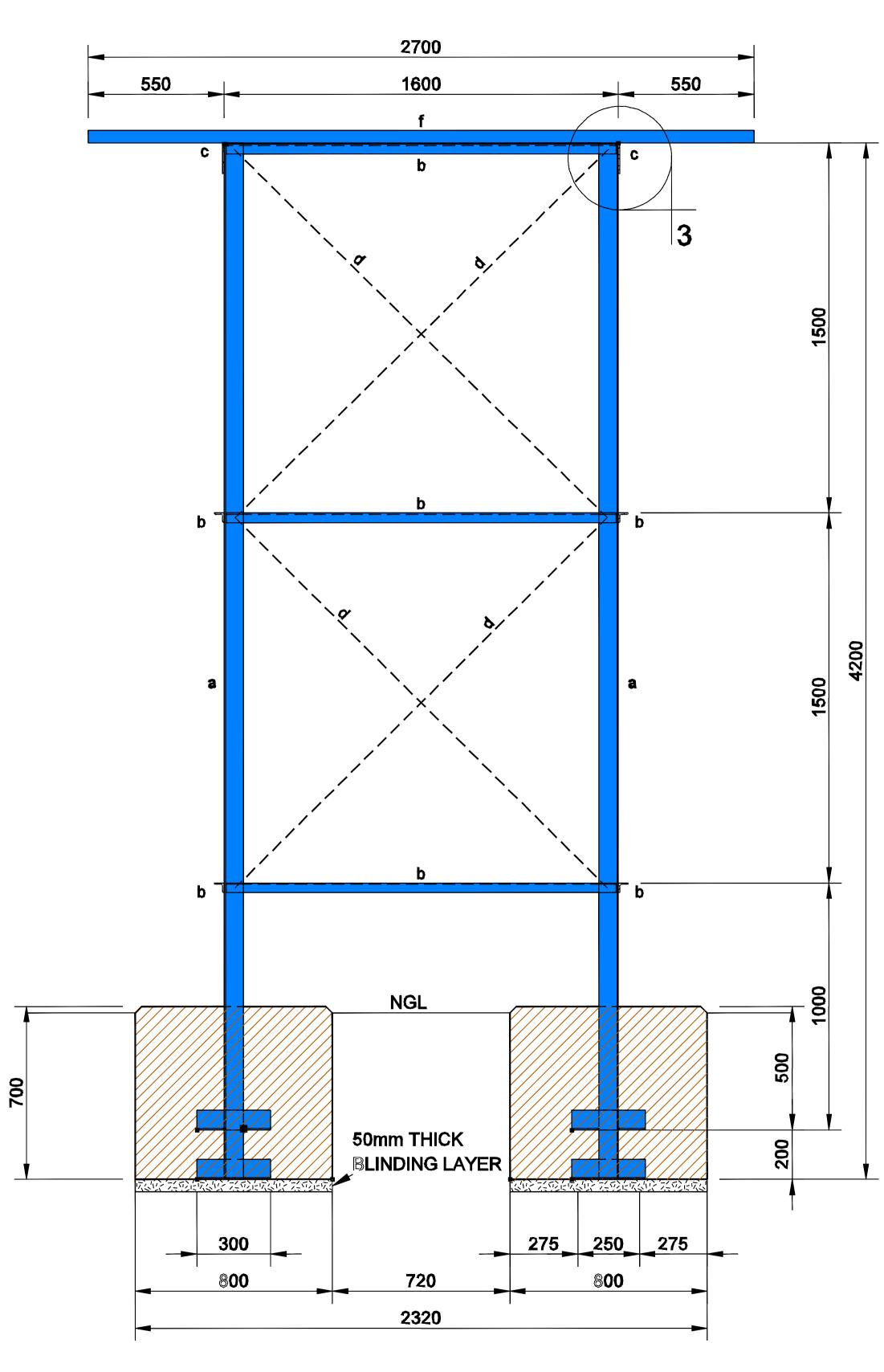
- $\cdot$  1.5 m wide x 1.8 m high. 40 x 40 x 2 mm angle iron palings welded to a minimum 50 x 25 x 1.6mm rectangular tubing bearer frame.
- Palings to be placed at 133 mm apart from each other centre to centre.

#### <u>Painting</u>

- · All joints must be smoothed off.
- All Flux, rust, grease and loose material to be removed before painting.
- Apply one coat primer for steel (red oxide), apply one coat universal undercoat for all surfaces, apply one coat Gloss
- enamel (colour as specified by the LPDE).
- No brush painting.

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# SECTION D-D



# **ISSUED FOR TENDER**

## STRUCTURAL STEEL MEMBERS

- a Column legs 60x60x5 angle made from commercial steel.
- b Horizontal brace 40x40x5 angle made from commercial steel.
- c Top platform main support beam 150x75x10 angle made from EN10025-2-
- d S355JR steel.
- Cross brace 30×5 flat bar made f - from commercial steel.

f - Top platform secondary support beams – 125x75x20x3 lipped channel made from commercial steel.

- 1. Use two M16 grade 4.8 bolts for the each of the column to platform connections.
- 2. Use one M12 grade 4.8 bolt for all other connections.
- 3. The cold formed lipped channels are to be bolted to the main support angle with two M10 grade 4.8 bolts at both ends of the lipped channel.
- 4. All steel to be coated with SANS approved corrosion protection galvanized paint for engineer's approval.

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