

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

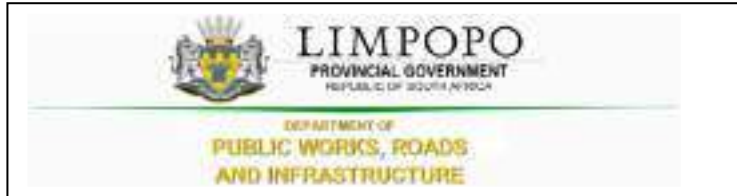
Name : Mr NJ Motsopye,
Tel No. : 015 284 7126
Email : motsopyen@dpw.limpopo.gov.za

Technical: Technical Queries

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

CONTRACT No. LDPWRI-B/20290

Name of the Bidder :



CONTENTS

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
- A – Mandatory Requirements
 - B – Non- Mandatory Requirements
 - C – Special Conditions and Departmental Rights

T2.2 Returnable schedules

THE CONTRACT

Part C1: Agreements and Contract data

C1.1 Form of offer and acceptance

C1.2 Contract data

Joint Venture Agreement (If Applicable)

Part C2: Pricing data

C2.1 Part 1 - Pricing Instructions

C2.2 Part 2 - Bills of Quantities

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

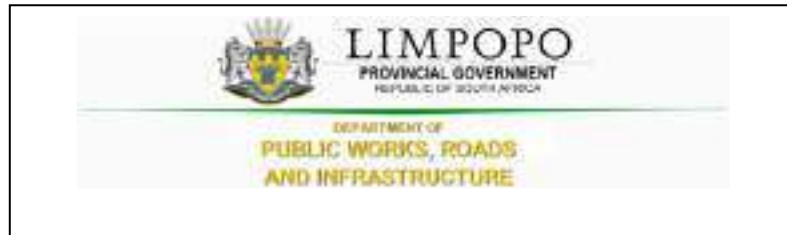
CONTRACT No. LDPWRI-B/20290

Part C3: Scope of Works
C3.1 Special Notes to Bidders
C3.2 OHS Specifications

Part C4 Drawings

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

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

Project Name	APPOINTMENT OF A CONTRACTOR FOR 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	
Tender Number	LDPWRI- B/20290	
Tender documents availability	Limpopo Department of Public Works, Roads and Infrastructure website	
Address for submission of tenders	DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699.	
Closing date of the tender	As per Tender invite	
Closing time of the tender	As per Tender invite	
Compulsory briefing meeting (<i>Tenderers must sign the attendance register in the name of the tendering entity. Addenda (if any) will be issued only to those tendering entities appearing on the attendance register</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	Meeting venue	As per Tender invite
	Date	As per Tender invite
	Time:	As per Tender invite
Evaluation criteria	<ol style="list-style-type: none"> 1. Compliance with mandatory or compulsory requirements 2. Risk assessment on current projects 3. Price 4. Preference 	
Mandatory or Compulsory Requirements (<i>failure to submit or comply with these requirements will lead to automatic disqualification</i>)	Only tenderers who are appointed on category A registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations are eligible to have their tenders evaluated	
	Completed and signed Form of Offer	
	Priced Bills of Quantities	
	Record of addenda to tender documents	
	Proposed amendments and qualifications	
	Declaration on the status of Administration compliance	
	CIDB grading certificate (Valid CIDB)	
	Declaration of current projects	



T1.2 Tender Data

Clause number	Tender Data
	<p>The conditions of tender are the Standard Conditions of Tender as contained in Annex C of Board Notice 423 of 2019 in Government Gazette No. 42622 of 08 August 2019, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of tenderers as an Annexure to this Tender Data.</p> <p>The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.</p> <p>The contractor shall achieve in the performance of the contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts Gazette Notice No. 36190 of 25 February 2013. In this case, contractor shall provide a minimum Contract Participation Goal (CPG) of 5% of the total project value and develop targeted enterprises stated under C3 of this document.</p> <p>The following variations, amendments and additions to the Standard Conditions of Tender as set out in the Tender Data below shall apply to this tender. Add the following to clauses in Standard Conditions of Tender:</p>
C.1.1	The Employer is the Department of Public Works, Roads and Infrastructure

CONTRACT No. LDPWRI-B/20290

C.1.2	<p>The Tender Part T1: Tendering procedures T1.1 Tender notice and invitation to tender T1.2 Tender data</p> <p>Part T2: Returnable documents T2.1 List of returnable documents T2.2 Returnable schedules</p> <p>The Contract Part C1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Joint Venture Agreement (If Applicable)</p> <p>The Contract Part C2: Pricing data C2.1 Pricing instructions C2.2 Bills of Quantities</p> <p>Part 3: Scope of work C3.1 Special Notes to Bidders C3.2 OHS Specifications</p> <p>Part 4: Site information C4 Drawings</p>
C.1.4	<p>The employer's representative is:</p> <p>Name : Mr K Modjadji Tel No. : 083 673 5436 Email : ModjadjiM@dpw.limpopo.gov.za</p> <p>However, all communications related to this bid should be directed to the persons indicated under Enquires on this tender document.</p> <p>Attention is also drawn to the fact that verbal information, given by the Employer's agent during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer. Only information issued formally by the Employer in writing to Tenderers will be regarded as amending the Tender Documents.</p>
C.1.5	<p>The employer reserve to cancel the tender prior to the award of the tender.</p>
C1.6.2	<p>A competitive negotiation procedure will not be followed.</p>
C1.6.3	<p>A two-stage system will not be followed.</p>
C.2.1	<p>Eligibility in respect of CIDB grading</p> <p>Only tenderers who are appointed on framework agreement category A and registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, are eligible to have their tenders evaluated.</p>
C2.2	<p>Cost of tendering</p> <p>The tenderer accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.</p>

CONTRACT No. LDPWRI-B/20290

C.2.7	<p>Compulsory site briefing</p> <p>A compulsory briefing meeting will be held as per Tender invite</p> <p>Failure to attend the site briefing will result in the bidders not being considered for the project</p> <p>Tenderers must sign the attendance list in the name of the tendering entity. Addenda (if any) will be issued only to those tendering entities appearing on the attendance list.</p>
C.2.11	<p>Alterations to the documents</p> <p>Bidders are required to not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations</p>
C.2.12	<p>Alternative tender offer</p> <p>No alternative tender offer is permitted in this tender.</p>
C.2.13.2	<p>Replace sub-clause C.2.13.2 with the following; Return all returnable documents to the employer after completing them in by writing in non-erasable black ink (Black pen)</p>
C.2.13.3	<p>Parts of each tender offer communicated on paper shall be submitted as an original</p>
C.2.13.4	<p>The tender shall be signed by a person duly authorized to do so.</p>
C.2.13.5	<p>The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:</p> <p>Location of tender box: DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699 Identification details: Sealed Tender with Tender reference number, Title of Tender and the closing date and time of the tender.</p>
C.2.15.1	<p>The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p>
C.2.16.1	<p>The tender offer validity period is 120 days.</p>
C.2.16.2	<p>The tender accepts that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16.1 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).</p>
C.3.1	<p>The tenderer is required to indicate how they claim points for each preference point system and attached relevant supporting documents. The specific goals for claiming of preference points include the following:</p> <ul style="list-style-type: none"> - Persons who had no franchise in national elections prior to 1983 and 1993 - Women - Disabled persons - Promotion of SMMEs - Enterprises located in Limpopo Province - Promotion of youth - South African owned enterprises

CONTRACT No. LDPWRI-B/20290

	<p>CIDB Grading Certificate</p> <p>Tenders are required to provide proof of registration with the CIDB register of contractors indicating the category of registration, grading as well as the CRS number of the tenderer.</p> <p>Letter of Good Standing</p> <p>Tenderer's are required to submit, bound with the tender submission, a letter of good standing from the compensation commissioner indicating that the bidder is in good standing.</p>
C3.2	<p>Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.</p>
C.3.4.1	<p>Tenders will not be opened immediately after the closing time for tenders.</p>
C.3.11	<p>The tenderers will be evaluated in four stages</p> <ul style="list-style-type: none"> (i) Stage 1: Compliance with mandatory requirements as stated in Part T1.1 (ii) Stage 2: Risk assessment on current projects (iii) Stage 3: Price (iv) Stage 4: Preference <p>The technical capacity (functionality) of the contractors will not be evaluated any further during evaluation of the RFQ. However, the contractors will be required to declare the status of their key staff and any administrative compliance. In cases where there are changes in the key staff, the contractor should provide CVs and qualifications of the new staff to LDPWR&I. The new staff should have similar skills, qualifications and experience as the staff submitted during tender. Similarly, the contractors will be expected to provide an update on any changes in their administrative compliances – and should submit the required SBD document/forms in such cases.</p> <p>The award will only be issued to contractors with valid Tax Clearance certificates, active CIDB grading and the contractor who meets all the legislative requirement – this shall be verified by SCM in line with the departmental SCM Policy.</p> <p>The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade.¹</p> <ul style="list-style-type: none"> a) Stage 1: Administrative Compliance: The Compliance or compulsory documents and returnables are detailed in Section T.2.1 of this tender document. Failure to submit, complete or comply with these requirements will lead to automatic disqualification. b) Stage 2: Risk assessment on current projects <p>The total value of current projects for a contractor under consideration cannot exceed twice the maximum value of their relevant CIDB grade. Should it exceed, the bidder will therefore not be appointed.</p>

CONTRACT No. LDPWRI-B/20290

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:

$$! = \# * \% 1 - \frac{(\text{"1#"})}{.}$$

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

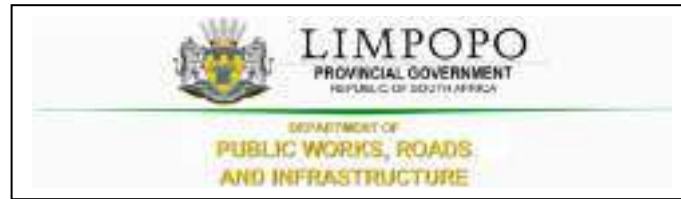
!% is the lowest Comparative bid price

!& 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

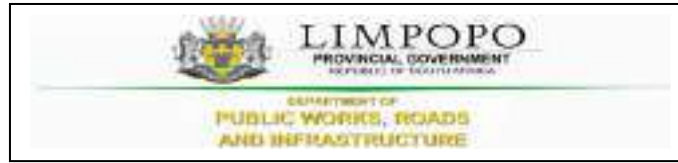
REFURBISHMENT AND ADDITIONS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT.

CONTRACT No. LDPWRI-B/20290



PART T2: RETURNABLE DOCUMENTS

CONTRACT No. LDPWRI-B/20290



T2.1 : LIST OF RETURNABLE DOCUMENTS

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

A -- MANDATORY REQUIREMENTS

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

B – NON- MANDATORY REQUIREMENTS

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

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

CONTRACT No. LDPWRI-B/20290

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

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

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

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

C -- SPECIAL NOTES TO BIDDERS AND DEPARTMENTAL RIGHTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

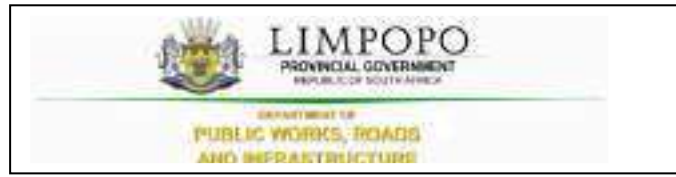
CONTRACT No. LDPWRI-B/20290



T 2.2: RETURNABLE SCHEDULE

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

CONTRACT No. LDPWRI-B/20290



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 _____

CONTRACT No. LDPWRI-B/20290



Record of Addenda to tender documents

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

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

CONTRACT No. LDPWRI-B/20290

Attach additional pages if more space is required.

Signed Date

Name Position

Tenderer



Proposed amendments and qualifications

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

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

Page	Clause or item	Proposal

Signed _____ Date _____
 Name _____ Position _____
 Tenderer _____

**SBD 1****PART A: INVITATION TO BID**

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

BID NUMBER:	LDPWRI-B/20290	CLOSING DATE	As per Tender Advert	CLOSING TIME:	As per Tender Advert
--------------------	-----------------------	---------------------	-----------------------------	----------------------	-----------------------------

DESCRIPTION **REFURBISHMENT AND ADDITIONS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT, WATERBERG DISTRICT**

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

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE.

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

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO

CONTACT PERSON Mr. NJ Motsopye

TELEPHONE NUMBER 0152847126 E-MAIL ADDRESS motsopyen@dpw.limpopo.gov.za

CONTACT PERSON (TECHNICAL) Mr. K Modjadji

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

SUPPLIER INFORMATION

NAME OF BIDDER

POSTAL ADDRESS

STREET ADDRESS

TELEPHONE NUMBER CODE NUMBER

CELLPHONE NUMBER

E-MAIL ADDRESS

VAT REGISTRATION NUMBER

SUPPLIER COMPLIANCE STATUS TAX COMPLIANCE SYSTEM PIN: OR CENTRAL SUPPLIER DATABASE No: MAAA

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED? Yes No [IF YES ENCLOSE PROOF]

ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED? Yes No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? YES NO

DOES THE ENTITY HAVE A BRANCH IN THE RSA? YES NO

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? YES NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? YES NO

IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? YES NO

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

CONTRACT No. LDPWRI-B/20290

PART B: TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM.
2. TAX COMPLIANCE REQUIREMENTS
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

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

SIGNATURE OF BIDDER:

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

DATE:

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest² in the enterprise,

employed by the state?

YES/NO

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....

² the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

CONTRACT No. LDPWRI-B/20290

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

2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting

business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

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

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

.....
Signature Date

.....
Position Name of bidder



SBD 6.1

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

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

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

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

CONTRACT No. LDPWRI-B/20290

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).

CONTRACT No. LDPWRI-B/20290

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

$$P_s = \left(\frac{80}{20} \right) \left(\frac{P_t - P_{min}}{P_t} \right) \text{ or } P_s = \left(\frac{90}{10} \right) \left(\frac{P_t - P_{min}}{P_t} \right)$$

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{min} = 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:

$$P_s = \left(\frac{80}{20} \right) \left(\frac{P_{max} - P_t}{P_{max}} \right) \text{ or } P_s = \left(\frac{90}{10} \right) \left(\frac{P_{max} - P_t}{P_{max}} \right)$$

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{max} = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

CONTRACT No. LDPWRI-B/20290

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

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

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

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

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

DECLARATION WITH REGARD TO COMPANY/FIRM

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

4.5. Company registration number:

4.6. TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company

[TICK APPLICABLE BOX]

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

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:

.....
.....
.....



STATEMENT OF CURRENT PROJECTS

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

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

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

Representation of facts will render your bid non-responsive.

List of current projects executed by the bidder

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

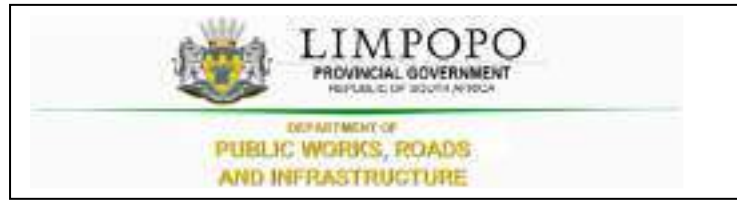
Please note that it is compulsory to answer the question above and if the answer is yes, complete the table below. Failure by the service provider/bidder to answer the question above or complete the table below will render their proposal not responsive and will not be considered.

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

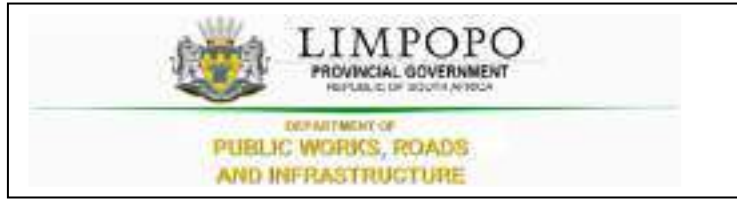
Signed _____ Date _____

Name _____ Position _____

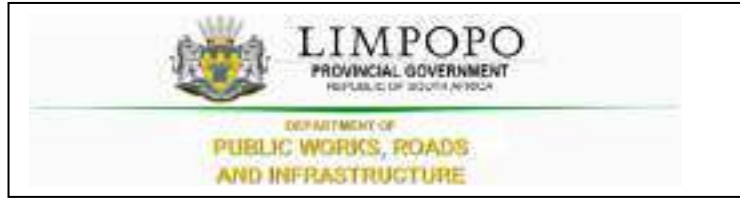
Enterprise _____



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 words); R

.....

(in figures) R.....

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

Signature(s)

Name(s)

Capacity

For the tenderer:

Name & signature of witness

Date

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

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the tenderer's Offer. In consideration thereof, the *Employer* shall pay the Consultant the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the *Employer* and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part C2 Pricing Data
- Part C3 Scope of Work

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

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the *Employer* during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

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

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

For the Employer

Signature

Name

Capacity

Name and address of organization

Signature and Name of Witness

Signature

Name

Capacity

Schedule of Deviations

- 1 Subject
- Details
-
-
-

- 2 Subject
- Details
-
-
-

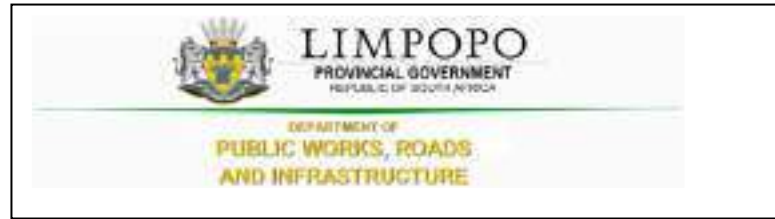
- 3 Subject
- Details
-
-
-

- 4 Subject
- Details
-
-
-

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

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

.....



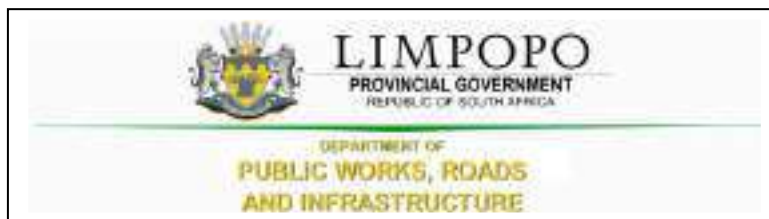
C2.1 CONTRACT DATA

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

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

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

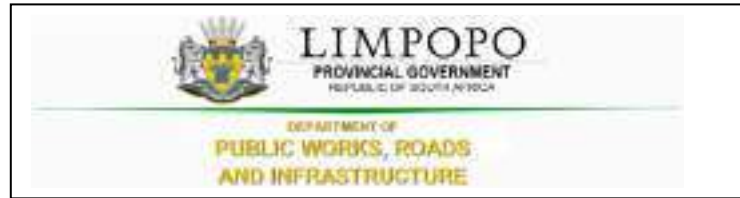
The contractor shall achieve in the performance of the contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the **CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts Gazette Notice No. 36190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



PART C2: PRICING DATA

C2.1 Pricing instruction

- The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work in accordance with the provisions of the Model Bills of Quantities or Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- The agreement is under the JBCC N/S Subcontractor Agreement for use with the JBCC PBA (Edition 4.1 code 2101 March 2005) form of contract with Preliminaries (Code 2103 May 2005) incorporating the State Provisions of cl 41.0.
- It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders.
- The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
- An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Bills of Quantities.
- The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
- The bidder shall set aside a minimum of 5 % of the project value for sub-contractor/s and determine the amount to be paid for the Contract Participation Goal (CPG).



PART C2.2: BILLS OF QUANTITIES

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

R

Section No. 1
PRELIMINARIES
Bill No. 1

DEFINITIONS

1 **A1 DEFINITIONS AND INTERPRETATIONS**

Clause 1.0 Clause

1.1 Definition of "**Commencement Date**" is added:

"COMMENCEMENT DATE" means the date that the **agreement**, made in terms of the Form of Offer and Acceptance, comes into effect.

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

"CONSTRUCTION PERIOD" means the period commencing on the commencement date and ending on the date of practical completion.

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

INTEREST means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be in terms of the legislation of the Republic of South Africa, and in 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:

Carried to Collection

R

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**

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
 PRELIMINARIES
 Bill No. 1

6	<p>A6 SITE REPRESENTATIVE</p> <p>Clause 6.0 Fixed: _____ Value related: _____ Time related: _____</p>	item	
7	<p>A7 COMPLIANCE WITH REGULATION</p> <p>Clause 7.0</p> <p>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</p> <p>See also clause C10 of Section C - Specific Preliminaries</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	item	
8	<p>A8 WORKS RISK</p> <p>Clause 8.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	item	
9	<p>A9 INDEMNITIES</p> <p>Clause 9.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	item	
10	<p>A10 WORKS INSURANCES</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>Clause 10.0</p> <p>Clause 10.0 is amended by the addition of the following clauses:</p>	item	
	Carried to Collection	R	

10.5 Damage to the Works

- (a) 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

R	

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

Carried to Collection

R

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: _____

11 **A11 LIABILITY INSURANCES**

Clause 11.0

Fixed: _____ Value related: _____
Time related: _____

12 **A12 EFFECTING INSURANCES**

Clause 12.0

Fixed: _____ Value related: _____
Time related: _____

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)

Carried to Collection

item

item

item

R

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**, 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**

Carried to Collection

R

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

Carried to Collection

R

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 *mutatis mutandi* 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 *mutatis mutandi* 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**

Carried to Collection

R

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: _____
Time related: _____

EXECUTION

15 **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

Fixed: _____ Value related: _____
Time related: _____

16 **A16 ACCESS TO THE WORKS**

Clause 16.0

Fixed: _____ Value related: _____
Time related: _____

17 **A17 CONTRACT INSTRUCTIONS**

Clause 17.0

Fixed: _____ Value related: _____
Time related: _____

Carried to Collection

item

item

item

item

R

18 **A18 SETTING OUT OF THE WORKS**

Clause 18.0

Fixed: _____ Value related: _____
 Time related: _____

item

19 **A19 ASSIGNMENT**

Clause 19.0

Fixed: _____ Value related: _____
 Time related: _____

item

20 **A20 NOMINATED SUB-CONTRACTORS**

Clause 20.0

Clause 20.1.3 is amended by replacing it with the following:

No Clause

Note: See item B9.1 hereinafter for adjustment of attendance on nominated subcontractors executing work allowed for under provisional sums

Fixed: _____ Value related: _____
 Time related: _____

item

21 **A21 SELECTED SUBCONTRACTORS**

Clause 21.0

Clause 21 is amended by replacing with:

No Clause

Fixed: _____ Value related: _____
 Time related: _____

item

Carried to Collection

R

Section No. 1
 PRELIMINARIES
 Bill No. 1

22	<p>A22 EMPLOYERS DIRECT CONTRACTORS</p> <p>Clause 22.0</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>			
23	<p>A23 CONTRACTOR'S DOMESTIC SUBCONTRACTORS</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>			
24	<p>A24 PRACTICAL COMPLETION</p> <p>Clause 24.0</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>			
25	<p>A25 WORK'S COMPLETION</p> <p>Clause 25.0</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>	item		
26	<p>A26 FINAL COMPLETION</p> <p>Clause 26.0</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>	item		
27	<p>A27 LATENT DEFECTS LIABILITY PERIOD</p> <p>Clause 27.0</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>	item		
28	<p>A27 SECTIONAL COMPLETION</p> <p>Clause 28.0</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>	item		
Carried to Collection				
		R		

Section No. 1
 PRELIMINARIES
 Bill No. 1

29 **A29 REVISION OF DATE FOR PRACTICAL COMPLETION**

Clause 29.0

Fixed: _____ Value related: _____

Time related: _____

item

30 **A30 PENALTY FOR NON-COMPLETION**

Fixed: _____ Value related: _____

Time related: _____

item

PAYMENT

31 **A31 INTERIM PAYMENT TO THE CONTRACTOR**

Clause 31.0

Clause 31.8 is amended by replacing it with the following two alternative clauses:

Alternative A

31.8(A).1 Where a **security** is selected in terms of 14.1, 14.5 or 14.6, the value of the **works** in terms of 31.4.1 and **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(A).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date of **final completion**

31.8(A).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6

31.8(A).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**

Carried to Collection

R

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: _____

32 **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: _____

Carried to Collection

item

item

R

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

Carried to Collection

R

CANCELLATION

A36 CANCELLATION BY EMPLOYER - CONTRACTORS DEFAULT

Clause 36.0

Clause 36.3 is amended by removing the reference to No clause and replacing the words **principal agent** with **employer**

Clause 36.0 is amended by the addition of the following clause:

36.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

Fixed: _____ Value related: _____

Time related: _____

item

36 **A37 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE**

Clause 37.0

Clause 37.0 is amended by the addition of the following clause:

37.5 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

Fixed: _____ Value related: _____

Time related: _____

item

37 **A38 CANCELLATION BY CONTRACTOR - EMPLOYERS DEFAULT**

Clause 38.0

Carried to Collection

R

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: _____

38 **A39 CESSATION- CANCELLATION OF THE WORKS**

Clause 39.0

Fixed: _____ Value related: _____
Time related: _____

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: _____

Carried to Collection

item

item

item

R

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

Carried to Collection

R

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

52 **Existing premises occupied**

Fixed: _____ Value related: _____
 Time related: _____

item

53 **Previous work dimensional accuracy**

Fixed: _____ Value related: _____
 Time related: _____

item

54 **Previous work defects**

Fixed: _____ Value related: _____
 Time related: _____

item

55 **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

58 **Articles of value**

Fixed: _____ Value related: _____
 Time related: _____

item

59 **Inspection of adjoining properties**

Fixed: _____ Value related: _____
 Time related: _____

item

Carried to Collection

R

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

Carried to Collection

R

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

Carried to Collection

R

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

Carried to Collection

R

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

Carried to Collection

R

92 **Disturbance**

Fixed: _____ Value related: _____
 Time related: _____

item

93 **Environmental disturbance**

Fixed: _____ Value related: _____
 Time related: _____

item

94 **Works cleaning and clearing**

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

99 **Tenant installations**

Fixed: _____ Value related: _____
 Time related: _____

item

Carried to Collection

R

Section No. 1
 PRELIMINARIES
 Bill No. 1

SCHEDULE OF VARIABLES

100 ***Pre-tender information***

Fixed: _____ Value related: _____
 Time related: _____

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.

item

Carried to Collection

R

Section No. 1
 PRELIMINARIES
 Bill No. 1

12.1 PRE-TENDER INFORMATION

12.1.1 Provisional Bills of Quantities

[2.2] The quantities are provisional NO

12.1.2 Availability of construction documentation

[2.3] *Construction documentation is complete* YES

12.1.3 Interest of agent

[2.4] Details:
Employer: Limpopo Department of of Roads & Infrastructure

43 Church Street
 Private Bag X9490
 POLOKWANE, 0700
 Tel: [015] 284 7000/1 Cell: 082 460 6271

Architect and Principal Agent:

Ruben Reddy Architects
 4 Ismini Office Park,
 POLOKWANE
 Tel: [015] 065 0645 Fax: [011] 475 8364
 Email : Geshim.Francis@rubenreddyarch.co.za

Quantity Surveyor:

Phahlana-Hunadi QS
 2760 Zone B
 LEBOWAKGOMO , 0737
 Tel: [015] 633 6535 Fax: [015] 633 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:

NSKECM
 38 Burger Street
 Polokwane 0700
 Tel: 015 295 2104 Fax: 015 295 2104
 Email: mark@nskecm.co.za

Carried to Collection

R

<p>12.1.4 Defined works area [3.1] Details: Site as per land surveyor</p> <p>12.1.5 Geotechnical investigation [3.2] Details: Refer to Principal Agent</p> <p>12.1.6 Existing premises occupies [3.4] Specific requirements: N/A</p> <p>12.1.7 Previous work - dimensional accuracy [3.5] Details: N/A</p> <p>12.1.8 Previous work - defects [3.6] Details: N/A</p> <p>12.1.9 Services - known [3.7] Details: N/A</p> <p>12.1.10 Protection of trees [3.9] Specific requirements:</p> <p>12.1.11 Inspection of adjoining properties [3.11] Specific requirements:</p> <p>12.1.12 Enclosure of the works 6.2] Specific requirements:</p> <p>12.1.13 Offices [6.4.3] Specific requirements: The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, 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.</p>	<p>Carried to Collection</p>	<p>R</p>
--	-------------------------------------	-----------------

<p>12.1.14 [6.5]</p> <p>Main notice board Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick around outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms of SA. All working shall be inscribed in dark green painted sans serif lettering.</p>			
<p>12.1.15 [6.6]</p> <p>Subcontractor's notice board Specific requirements:</p>			YES/NO
<p>12.1.16 [7.2]</p> <p>Water Option A (by contractor)</p> <p>Option B (by employer - free of charge)</p> <p>Option C (by employer - metered)</p>			YES NO NO
<p>12.1.17 [7.3]</p> <p>Electricity Option A (by contractor)</p> <p>Option B (by employer - free of charge)</p> <p>Option C (by employer - metered)</p>			YES NO NO
<p>12.1.18 [7.4]</p> <p>Telecommunications Telephone</p> <p>Facsimile</p> <p>E-mail</p>			YES YES YES
<p>12.1.19 [7.5]</p> <p>Ablution facilities Option A (by contractor)</p> <p>Option B (by employer)</p>			YES NO
<p>12.1.20 [11.2]</p> <p>Protection of existing/sectionally occupied works Protection is required</p>			NO
Carried to Collection			
		R	

<p>12.1.21 Special attendance [9.2] Subcontractor (1) details:</p> <p>Subcontractor (2) details:</p> <p>Subcontractor (3) details:</p> <p>Subcontractor (4) details:</p> <p>12.1.22 Protection of works [11.1] Specific requirements</p> <p>12.1.23 Disturbance [11.5] Specific requirements: The contractor shall keep the site, structures, etc. well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent</p> <p>12.1.22 Protection of works [11.1] Specific requirements</p> <p>12.1.23 Disturbance [11.5] Specific requirements: The contractor shall keep the site, structures, etc. well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent</p> <p>12.1.24 Environmental disturbance [11.6] Specific requirements:</p> <p>12.2 POST-TENDER INFORMATION</p> <p>12.2.1 Payment of preliminaries [10.2] Option A (prorated) YES/NO</p> <p>Option B (calculates) YES/NO</p> <p>12.2.2 Adjustment of preliminaries [10.3] Option A (three categories) YES/NO</p> <p>Option B (detailed breakdown) YES/NO</p> <p>12.2.3 Additional agreed preliminaries items Details:</p>	<p>Carried to Collection</p>	<p>R</p>
---	-------------------------------------	-----------------

SECTION C: SPECIFIC PRELIMINARIES

Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item

101 **C1 CONTRACT DRAWINGS**

The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer the acquaint himself with the nature and extend of the **works** and the manner in which they are to be executed

Should any part of the drawings not be clearly intelligible to the tenderer he shall, before submitting his tender, obtain clarification in writing from the **principal agent**

Fixed: _____ Value related: _____
Time related: _____

item

102 **C2 GENERAL PREAMBLES**

The document Specification of Materials and Methods to be used (PW371) is obtainable on request from the head office and all regional offices of the Department, and shall be read in conjunction with the **bills of quantities** and be referred to for the full descriptions of work to be done and materials to be used

Fixed: _____ Value related: _____
Time related: _____

item

103 **C3 TRADE NAMES**

Wherever a trade name of any product has been described in the **bills of quantities**, the tenderers attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the **principal agent** being obtained to the closing date for submission of tenders

If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for

Fixed: _____ Value related: _____
Time related: _____

item

Carried to Collection

R

Section No. 1
PRELIMINARIES
Bill No. 1

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

Notwithstanding 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**

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

Carried to Collection

R

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: _____ Value related: _____
Time related: _____

item

Carried to Collection

R

C10 HIV/AIDS AWARENESS

It is required of the **contractor** to thoroughly study the HIV/AIDS Specification of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities.

Provision for pricing of HIV/AIDS awareness is made under items C10.1 TO C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained

The **contractor** must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the **principal agent**, notwithstanding the provisions of Clause A 31 of Section A:

Preliminaries (Section A) or any other clause to the contrary, reserves the right to delay issuing any progress **payment certificate** until the **contractor** provides satisfactory proof of compliance. The **contractor** shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment

110 **C10.1 AWARENESS CHAMPION**

Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related: _____
Time related: _____

item

111 **C10.2 AWARENESS WORKSHOPS**

Selection and appointment of a completed Services Provider approved by the **principal agent**, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related: _____
Time related: _____

item

Carried to Collection

R

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	
Carried to Collection			R	

Section No.1

PRELIMINARIES

Bill No.1

COLLECTION

Total Brought Forward from Page No.

**Page
No**

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	

Carried Forward

Section No. 1
PRELIMINARIES
Bill No. 1

Section No.1

PRELIMINARIES

Bill No.1

COLLECTION

Brought Forward

Total Brought Forward from Page No.

**Page
No**

19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

Carried Forward

Section No. 1
PRELIMINARIES
Bill No. 1

PRELIMINARIES

Bill No.1

COLLECTION

Brought Forward

Total Brought Forward from Page No.

**Page
No**

Section No. 1
PRELIMINARIES
Bill No. 1

Carried to Final Summary

SECTION NO. 2

Renovations (12CR, 16Waterborne, Nutrition)

	Unit	Quantity	Rate	Amount
<u>PREPARATORY WORK TO EXISTING SURFACES</u>				
22				
Making good defects in existing screeded floors with cement mortar	m ²	45		
<u>MAKING GOOD OF FINISHES ETC</u>				
<u>Making good untinted granolithic</u>				
23				
40mm Thick on floors in patches	m ²	75		
<u>Making good cement screeds</u>				
24				
Floors where one brick walls removed	m	10		
<u>Making good internal cement plaster</u>				
25				
Walls in patches	m ²	45		
26				
Walls where one brick wall was removed	m ²	31		
Carried to Collection				
				R
				R

Section No. 2
 Bill No. 1
 Alterations

Amount

BILL NO. 1
ALTERATIONS
COLLECTION

Page No

Brought Forward from Page

42

43

44

Carried To Section Summary

R

Section No. 2
Bill No. 1
Alterations

Amount

BILL NO. 2
EARTHWORKS
COLLECTION

Page No

Brought Forward from Page

46

47

Carried To Section Summary

R

Section No. 2
Bill No. 2
Earthworks

	Unit	Quantity	Rate	Amount
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				
1	m ³	10		
2	m ³	3		
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				
	m	96		
REINFORCED CONCRETE CAST ON/IN FORMWORK				
25MPa/19mm concrete				
4	m ³	10		
Surface beds cast in panels				
REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
25MPa/19mm concrete				
5	m ³	6		
Footings				
TEST CUBES				
Test Cubes				
6	No	10		
Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)				
CONCRETE SUNDRIES				
Finishing top surfaces of concrete smooth with a wood float				
7	m ²	96		
Surface beds, slabs, etc				
			R	
Carried to Collection				
Section No. 2				
Bill No. 3				
Concrete, Formwork And Reinforcement				

	Unit	Quantity	Rate	Amount
<u>MOVEMENT JOINTS ETC</u>				
<u>Saw-cut joints</u>				
8	m	48		
<u>REINFORCEMENT</u>				
<u>Mild steel reinforcement to structural concrete work</u>				
9	Tonnes	2.00		
<u>Fabric reinforcement</u>				
10	m ²	96		
Carried to Collection			R	
Section No. 2				
Bill No. 3				
Concrete, Formwork And Reinforcement				

Amount

BILL NO. 3
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

49

50

Carried To Section Summary

R

Section No. 2
Bill No. 3
Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>Renovations (12CR, 16Waterborne, Nutrition)</u>				
<u>BILL NO. 4</u>				
<u>MASONRY</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371"				
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar</u>				
1	m ²	32		
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFP bricks in class II mortar</u>				
2	m ²	98		
<u>2,5mm Brickwork reinforcement</u>				
3	m	429		
<u>Turning pieces to lintels etc</u>				
4	m	16		
<u>Galvanised wire ties etc</u>				
5	No	32		
<u>FACE BRICKWORK</u>				
<u>Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with recessed horizontal and flush vertical joints:</u>				
6	m ²	98		
7	m ²	14		
8	m ²	10		
<u>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</u>				
9	m	10		
10	m	16		
Carried to Collection			R	
Section No. 2				
Bill No. 4				
Masonry				

		Unit	Quantity	Rate	Amount
11	220mm Wide sills set level and slightly projecting	m	5		
<u>FIBRE-CEMENT WINDOW SILLS</u>					
<u>Natural grey sills in single lengths bedded in class 1 mortar including metal fixing lugs, etc</u>					
12	12 x 152mm Wide sills set sloping and slightly projecting	m	5		
Carried to Collection					R

Section No. 2
 Bill No. 4
 Masonry

Amount

BILL NO. 4
MASONRY
COLLECTION

Page No

Brought Forward from Page

52

53

Carried To Section Summary

R

Section No. 2
Bill No. 4
Masonry

	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				
<u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u>				
1	In walls	m ²	7	
<u>One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape</u>				
2	Under surface beds	m ²	96	
Carried To Section Summary				
Section No. 2				
Bill No. 5				
Waterproofing				
			R	

	Unit	Quantity	Rate	Amount
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				
<u>0.58mm "Klip-lok light industrial" galvanised troughed sheet steel with "chromadek" finish one side, fixed to 76 x 50mm purlin complete under 5year guarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer</u>				
1	m ²	1 249		
<u>0.58mm galvanised sheet iron, with "chromadek" one side in:</u>				
2	m	118		
Carried To Section Summary			R	
Section No. 2				
Bill No. 6				
Roof Coverings				

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 2</u></p>				
<p><u>Renovations (12CR, 16Waterborne, Nutrition)</u></p>				
<p><u>BILL NO. 7</u></p>				
<p><u>CARPENTRY AND JOINERY</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>SUPPLEMENTARY PREAMBLES</u></p>				
<p><u>Particle board:</u></p>				
<p>Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.</p>				
<p><u>Joinery:</u></p>				
<p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p>				
<p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.</p>				
<p><u>Fixing:</u></p>				
<p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p>				
<p><u>Decorative laminate finish:</u></p>				
<p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.</p>				
<p><u>PREFABRICATED ROOF TRUSSES, ETC.</u></p>				
<p><u>Plate nailed timber roof truss construction:</u></p>				
<p>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 branding .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 quarantee shall be valid for 10(ten) years .</p>				
<p>Carried to Collection</p>			R	
<p>Section No. 2 Bill No. 7 Carpentry And Joinery</p>				

	Unit	Quantity	Rate	Amount
1 Roof construction to double pitched roof with hipped ends approximately 100m ² (nutrition centre) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).	No	1		
<u>ROOF SUNDRIES</u>				
<u>Sundries:</u>				
2 Two coats creosote on sawn timbers.	m ²	91		
<u>EAVES, VERGES, ETC</u>				
<u>Everite FC77 or equal approved pressed fibre-cement:</u>				
3 10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	373		
<u>Wrought meranti doors:</u>				
<u>Wrought meranti doors hung to steel frames:</u>				
4 44mm Framed batten door 813 x 2032mm high of 44 x 150mm 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		
<u>DOORS ETC</u>				
<u>Semi-solid flush doors with veneer</u>				
5 40mm Door 813 x 2032mm high	No	16		
Carried to Collection				
Section No. 2				
Bill No. 7				
Carpentry And Joinery				
			R	

Amount

BILL NO. 7
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

57

58

Carried To Section Summary

R

Section No. 2
Bill No. 7
Carpentry And Joinery

	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.	m ²	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.	m ²	1 166
4		Extra over ceiling for hinged trap door size 610 x 610mm	No	17
Carried To Section Summary				
Section No. 2				
Bill No. 8				
Ceilings Partitions And Access Flooring				
			R	

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

Amount

BILL NO. 9
IRONMONGERY
COLLECTION

Page No

Brought Forward from Page

61

62

Carried To Section Summary

R

Section No. 2
Bill No. 9
Ironmongery

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>Renovations (12CR, 16Waterborne, Nutrition)</u>				
<u>BILL NO. 10</u>				
<u>METALWORK</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Descriptions:</u>				
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.				
<u>MILD STEEL HANDRAILS AND BALUSTRADING</u>				
<u>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 opening 3No. In each upright, top rail to be 30mm thick x 100mm wide steel</u>				
1	m	10		
<u>Mild Steel Poles</u>				
2	No	2		
<u>WELDED SCREENS, GATES, ETC.</u>				
<u>Gates to external doors</u>				
3	No	20		
			Carried to Collection	R
Section No. 2				
Bill No. 10				
Metalwork				

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

Amount

BILL NO. 10
METALWORK
COLLECTION

Page No

Brought Forward from Page

64

65

Carried To Section Summary

R

Section No. 2
Bill No. 10
Metalwork

	Unit	Quantity	Rate	Amount
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	m ²	902		
GRANOLITHIC				
Untinted wood floated granolithic on concrete				
2	m ²	72		
INTERNAL PLASTER				
Cement plaster steel trowelled, on brickwork				
3	m ²	98		
4	m ²	5		
Carried To Section Summary				
Section No. 2			R	
Bill No. 11				
Plastering				

	Unit	Quantity	Rate	Amount
SECTION NO. 2				
Renovations (12CR, 16Waterborne, Nutrition)				
BILL NO. 12				
TILING				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>FLOOR TILING</u>				
<u>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</u>				
1	m ²	895		
2	m	694		
Carried To Section Summary				
Section No. 2				
Bill No. 12				
Tiling				
			R	

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 2</u> <u>Renovations (12CR, 16Waterborne, Nutrition)</u> <u>BILL NO. 13</u> <u>PLUMBING AND DRAINAGE</u></p> <p><u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Concrete pipes:</u> Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p> <p><u>uPVC pressure pipes and fittings:</u> 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.</p> <p><u>Copper pipes:</u> Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.</p> <p><u>Fixing of pipes</u> 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</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 2 Bill No. 13 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<p><u>Reducing fittings:</u></p>				
<p>Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.</p>				
<p><u>Wire gratings:</u></p>				
<p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.</p>				
<p><u>Septic tanks:</u></p>				
<p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.</p>				
<p><u>Exposed concrete surfaces:</u></p>				
<p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p>				
<p><u>Excavations:</u></p>				
<p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p>				
<p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p>				
<p><u>Laying, backfilling, bedding, etc of pipes:</u></p>				
<p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p>				
<p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.</p>				
<p><u>Flush pans:</u></p>				
<p>Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.</p>				
<p>Carried to Collection</p>				
<p>Section No. 2 Bill No. 13 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u>				
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
<u>Waste unions:</u>				
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
<u>RAINWATER DISPOSAL</u>				
<u>Approved .6mm galvanised sheet iron with "chromadek" finish ,in:</u>				
1	m	337		
2	No	30		
3	No	30		
4	No	48		
5	m	192		
6	No	48		
7	No	48		
<u>FIRE APPLIANCES ETC.</u>				
<u>'Chubb' or equal approved:</u>				
8	No	17		
<u>RAINWATER HARVESTING</u>				
<u>Rainwater harvesting</u>				
9	No	8		
Carried to Collection			R	
Section No. 2				
Bill No. 13				
Plumbing And Drainage				

Amount

BILL NO. 13

PLUMBING AND DRAINAGE

COLLECTION

Page No

Brought Forward from Page

69

70

71

Carried To Section Summary

R

Section No. 2

Bill No. 13

Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p>SECTION NO. 2 Renovations (12CR, 16Waterborne, Nutrition) BILL NO. 14 GLAZING</p> <p>PREAMBLES For preambles see "Specification of materials and methods to be used - PW371</p> <p>GLAZING TO STEEL WITH PUTTY 5mm Clear float glass:</p> <p>1 Panes not exceeding 0,1m2.</p>	m ²	65		
<p>Section No. 2 Bill No. 14 Glazing</p>				<p>Carried To Section Summary</p> <p>R</p>

	Unit	Quantity	Rate	Amount
SECTION NO. 2				
Renovations (12CR, 16Waterborne, Nutrition)				
BILL NO. 15				
PAINTWORK				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>ON FLOATED PLASTER</u>				
<u>Prepare , etc as specified and apply two coats of super acrylic paint:</u>				
1	m ²	98		
<u>ON FIBRE-CEMENT, ETC.</u>				
<u>Prepare , etc as specified and apply two coats of super acrylic Pva paint:</u>				
2	m ²	1 166		
3	m ²	373		
<u>ON METAL</u>				
<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4	m ²	54		
5	m ²	150		
6	m ²	110		
7	m	6		
8	m ²	3 000		
<u>Prepare, etc as specified and paint inside eaves gutters with waterproofing based paint:</u>				
9	m ²	131		
<u>ON WOOD, WOOD BOARD</u>				
<u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u>				
10	m ²	53		
Carried to Collection				
Section No. 2				
Bill No. 15				
Paintwork				
			R	

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

Amount

BILL NO. 15
PAINTWORK
COLLECTION

Page No

Brought Forward from Page

74

75

Carried To Section Summary

R

Section No. 2
Bill No. 15
Paintwork

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

Carried to Final Summary

R

Section No. 2
SECTION SUMMARY

SECTION NO. 3

2 x 5 Classroom Block

	Unit	Quantity	Rate	Amount
<u>Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):</u>				
10				
	m ³	103		
<u>Cart Away</u>				
<u>Extra over excavation for cart away:</u>				
11				
	m ³	23		
<u>Coarse river sand filling supplied by the Contractor:</u>				
12				
	m ³	21		
<u>COMPACTION</u>				
<u>Compaction of surfaces:</u>				
13				
	m ²	410		
<u>Prescribed density tests on filling:</u>				
14				
	No	15		
<u>SOIL POISONING</u>				
<u>Soil insecticide:</u>				
15				
	m ²	410		
16				
	m ²	585		
Carried to Collection				
Section No. 3			R	
Bill No. 1				
Foundations				

Amount

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

79

80

Carried To Section Summary

R

Section No. 3
Bill No. 1
Foundations

	Unit	Quantity	Rate	Amount
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	m ³	12		
2	m ³	3		
3	m	119		
REINFORCED CONCRETE				
25 MPa/19mm Concrete:				
4	m ³	37		
5	m ³	48		
TEST BLOCKS				
Test blocks:				
6	Sets	10		
7	m ²	120		
8	m ²	4		
FINISHING TOP SURFACE OF CONCRETE				
ROUGH FORMWORK (DEGREE OF ACCURACY III)				
(CPAP Work Group No 111)				
Rough Formwork to Sides:				
9	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	m	60		
Carried to Collection				
Section No. 3				
Bill No. 2				
Concrete, Formwork And Reinforcement				
			R	

	Unit	Quantity	Rate	Amount
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:</u>				
11	m	75		
<u>Dividing Strips ,etc</u>				
12	m	5		
<u>REINFORCEMENT(PROVISIONAL)</u>				
<u>Fabric reinforcement:</u>				
13	m ²	410		
<u>Steel reinforcement to structural concrete work:</u>				
14	Tonnes	6		
Carried to Collection			R	
Section No. 3				
Bill No. 2				
Concrete, Formwork And Reinforcement				

Amount

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

82

83

Carried To Section Summary

R

Section No. 3
Bill No. 2
Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
SECTION NO. 3				
2 x 5 Classroom Block				
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	m ²	217		
BRICKWORK IN SUPERSTRUCTURE				
Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
2	m ²	671		
BRICKWORK SUNDRIES				
Brickwork reinforcement:				
3	m	2 930		
Turning pieces:				
4	m	56		
Carried to Collection			R	
Section No. 3				
Bill No. 3				
Masonry				

	Unit	Quantity	Rate	Amount
<u>Galvanised wire ties etc:</u>				
5				
4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	120		
<u>Galvanised hoop iron cramps, ties, etc:</u>				
6				
30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	120		
<u>Prestressed fabricated concrete lintels including necessary temporary supports</u>				
7				
115 x 100mm Lintels in lengths not exceeding 3m	m	5		
<u>FACE BRICKWORK</u>				
<u>Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:</u>				
8				
Extra over brickwork for face brickwork.	m ²	315		
9				
Extra over brickwork for face brickwork in foundations (Provisional).	m ²	54		
10				
Half brick in facings in beamfilling	m ²	36		
<u>FACE BRICKWORK COPINGS, SILLS, ETC.</u>				
<u>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:</u>				
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		
<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u>				
<u>Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:</u>				
14				
12 x 152mm Wide sills set flat and slightly projecting.	m	56		
Carried to Collection				
Section No. 3				
Bill No. 3				
Masonry				
			R	

Amount

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

85

86

Carried To Section Summary

R

Section No. 3
Bill No. 3
Masonry

	Unit	Quantity	Rate	Amount
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.	m ²	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.	m ²	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	
Carried To Section Summary				
Section No. 3				
Bill No. 4				
Waterproofing				
			R	

	Unit	Quantity	Rate	Amount
SECTION NO. 3				
2 x 5 Classroom Block				
BILL NO. 5				
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 sheet steel with "chromadek" finish one side, fixed to 76 x 50mm purlin complete under 5year guarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer</u>				
1	m ²	555		
<u>.8mm galvanised sheet iron, with "chromadek" one side in:</u>				
2	m	54		
Carried To Section Summary				
Section No. 3				
Bill No. 5				
Roof Coverings				
			R	

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 3</u></p>				
<p><u>2 x 5 Classroom Block</u></p>				
<p><u>BILL NO. 6</u></p>				
<p><u>CARPENTRY AND JOINERY</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>SUPPLEMENTARY PREAMBLES</u></p>				
<p><u>Particle board:</u></p>				
<p>Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.</p>				
<p><u>Joinery:</u></p>				
<p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p>				
<p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.</p>				
<p><u>Fixing:</u></p>				
<p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p>				
<p><u>Decorative laminate finish:</u></p>				
<p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.</p>				
<p><u>PREFABRICATED ROOF TRUSSES, ETC.</u></p>				
<p><u>Plate nailed timber roof truss construction:</u></p>				
<p>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 quarantee shall be valid for 10(ten) years .</p>				
<p>Carried to Collection</p>				
<p>Section No. 3</p>				
<p>Bill No. 6</p>				
<p>Carpentry And Joinery</p>				
<p>90</p>				
			R	

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

Amount

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

90

91

Carried To Section Summary

R

Section No. 3
Bill No. 6
Carpentry And Joinery

	Unit	Quantity	Rate	Amount
SECTION NO. 3				
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.	m ²	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.	m ²	410
4		Extra over ceiling for hinged trap door size 610 x 610mm	No	5
Carried To Section Summary				
Section No. 3				
Bill No. 7				
Ceilings Partitions And Access Flooring				
			R	

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>2 x 5 Classroom Block</u>				
<u>BILL NO. 8</u>				
<u>IRONMONGERY</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Finishes to ironmongery:</u>				
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.				
<u>CATCHES, CABIN HOOKS, ETC</u>				
<u>Solid or equal approved:</u>				
1	No	5		
100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.				
<u>LOCKS</u>				
<u>Solid or equal approved:</u>				
2	No	5		
"Code 630" or equal approved padlock.				
<u>'Solid" or equal approved</u>				
3	No	10		
CZ6822461 "Gower" Four lever lockset.				
<u>SUNDRIES</u>				
<u>Solid or equal approved:</u>				
4	No	10		
38mm Diameter rubber door stop plugged.				
<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>				
<u>Vitrex or equal approved:</u>				
5	No	10		
Pinning board 2400 x 1200mm high plugged.				
6	No	5		
White magnetic Writing Board 4000mm x 1200mm				
Carried to Collection			R	
Section No. 3				
Bill No. 8				
Ironmongery				

	Unit	Quantity	Rate	Amount
<u>SHELVES ETC</u>				
<u>Proprietary type steel shelving with standard powder coated finish</u>				
7	No	87		
8	No	348		
Carried to Collection			R	
Section No. 3 Bill No. 8 Ironmongery				

Amount

BILL NO. 8
IRONMONGERY
COLLECTION

Page No

Brought Forward from Page

94

95

Carried To Section Summary

R

Section No. 3
Bill No. 8
Ironmongery

	Unit	Quantity	Rate	Amount
SECTION NO. 3				
2 x 5 Classroom Block				
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.				
STEEL BALUSTRADES AND HANDRAILS				
<u>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 opening 3No. In each upright, top rail to be 30mm thick x 100mm wide steel</u>				
1	m	10		
Mild Steel Poles				
2	No	17		
			Carried to Collection	R
Section No. 3				
Bill No. 9				
Metalwork				

	Unit	Quantity	Rate	Amount
<u>COMBINATION DOOR FRAME WITH SECURITY GATE</u>				
<u>Classroom combination door frame with security gate</u>				
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	
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1,2mm Rebated frames suitable for one brick walls:</u>				
4	Frame for door 813 x 2032mm high.	No	10	
<u>STEEL WINDOWS, DOORS, ETC.</u>				
<u>Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:</u>				
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	
<u>STEEL LOUVRES,ETC</u>				
<u>Purpose made louvres:</u>				
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				

Amount

BILL NO. 9
METALWORK
COLLECTION

Page No

Brought Forward from Page

97

98

Carried To Section Summary

R

Section No. 3
Bill No. 9
Metalwork

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

	Unit	Quantity	Rate	Amount
SECTION NO. 3				
2 x 5 Classroom Block				
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 amount R250.00/m2 excluding vat) fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound</u>				
1	m ²	343		
2	m	265		
Carried To Section Summary				
Section No. 3			R	
Bill No. 11				
Tiling				

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 3</u> <u>2 x 5 Classroom Block</u> <u>BILL NO. 12</u> <u>PLUMBING AND DRAINAGE</u></p> <p><u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Concrete pipes:</u> Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p> <p><u>uPVC pressure pipes and fittings:</u> 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.</p> <p><u>Copper pipes:</u> Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.</p> <p><u>Fixing of pipes</u> 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</p>				
<p>Section No. 3 Bill No. 12 Plumbing And Drainage</p>			<p>Carried to Collection</p>	<p>R</p>

	Unit	Quantity	Rate	Amount
<p><u>Reducing fittings:</u> Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.</p> <p><u>Wire gratings:</u> Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.</p> <p><u>Septic tanks:</u> Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.</p> <p><u>Exposed concrete surfaces:</u> Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p> <p><u>Excavations:</u> 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'.</p> <p><u>Laying, backfilling, bedding, etc of pipes:</u> 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.</p> <p><u>Flush pans:</u> Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 3 Bill No. 12 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u>				
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
<u>Waste unions:</u>				
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
<u>RAINWATER DISPOSAL</u>				
<u>Approved .6mm galvanised sheet iron with "chromadek" finish ,in:</u>				
1	m	119		
2	No	4		
3	No	30		
4	m	120		
5	No	30		
6	No	30		
<u>FIRE APPLIANCES ETC.</u>				
<u>'Chubb' or equal approved:</u>				
7	No	5		
<u>RAINWATER HARVESTING</u>				
<u>Rainwater Harvesting</u>				
8	No	2		
Carried to Collection			R	
Section No. 3				
Bill No. 12				
Plumbing And Drainage				

Amount

BILL NO. 12

PLUMBING AND DRAINAGE

COLLECTION

Page No

Brought Forward from Page

102

103

104

Carried To Section Summary

R

Section No. 3

Bill No. 12

Plumbing And Drainage

	Unit	Quantity	Rate	Amount
SECTION NO. 3				
2 x 5 Classroom 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 not exceeding 0,1m2.	m ²	55	
5mm obscure glass:				
2	Panes not exceeding 0,1m2.	m ²	25	
Carried To Section Summary				
Section No. 3				
Bill No. 13				
Glazing				
			R	

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

	Unit	Quantity	Rate	Amount
<u>Prepare, etc as specified and apply two coats of super acrylic Pva paint on:</u>				
9	m ²	7		
<u>ON WOOD, WOOD BOARD</u>				
<u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u>				
10	m ²	7		
11	m ²	13		
12	m ²	57		
Carried to Collection				
Section No. 3			R	
Bill No. 14				
Paintwork				

Amount

BILL NO. 14
PAINTWORK
COLLECTION

Page No

Brought Forward from Page

107

108

Carried To Section Summary

R

Section No. 3
Bill No. 14
Paintwork

Amount

SECTION NO. 3

2 x 5 Classroom Block

SECTION SUMMARY

Bill No.		Page
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

Section Factor

x 2

Carried to Final Summary

R

Section No. 3
SECTION SUMMARY

SECTION NO. 4

Medium Administration Block

	Unit	Quantity	Rate	Amount
<u>Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):</u>				
10				
	m ³	173		
<u>Cart Away</u>				
<u>Extra over excavation for cart away:</u>				
11				
	m ³	28		
<u>Coarse river sand filling supplied by the Contractor:</u>				
12				
	m ³	15		
<u>COMPACTION</u>				
<u>Compaction of surfaces:</u>				
13				
	m ²	297		
<u>Prescribed density tests on filling:</u>				
14				
	No	16		
<u>SOIL POISONING</u>				
<u>Soil insecticide:</u>				
15				
	m ²	297		
16				
	m ²	445		
Carried to Collection				
Section No. 4			R	
Bill No. 1				
Foundations				

Amount

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

112

113

Carried To Section Summary

R

Section No. 4
Bill No. 1
Foundations

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>Medium Administration Block</u>				
<u>BILL NO. 2</u>				
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371"				
<u>UNREINFORCED CONCRETE</u>				
<u>15Mpa/19mm Concrete</u>				
1				
	m ³	11		
2				
	m ³	4		
3				
	m	79		
<u>REINFORCED CONCRETE</u>				
<u>25MPa/19mm Concrete:</u>				
4				
	m ³	27		
5				
	m ³	27		
6				
	m ³	2		
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
7				
	Sets	20		
<u>FINISHING TOP SURFACE OF CONCRETE</u>				
8				
	m ²	79		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>				
<u>Rough Formwork to Sides:</u>				
9				
	m	25		
<u>Rough Formwork to Soffits:</u>				
10				
	m ²	10		
Carried to Collection				
Section No. 4			R	
Bill No. 2				
Concrete, Formwork And Reinforcement				

	Unit	Quantity	Rate	Amount
<u>MOVEMENT JOINTS ETC</u>				
<u>Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed:</u>				
11	m	70		
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:</u>				
12	m	75		
<u>Dividing Strips ,etc</u>				
13	m	8		
<u>REINFORCEMENT(PROVISIONAL)</u>				
<u>Fabric reinforcement:</u>				
14	m ²	297		
15	m ²	10		
<u>Mild steel reinforcement to structural concrete work:</u>				
16	Tonnes	1.00		
<u>High tensile steel reinforcement to structural concrete work:</u>				
17	Tonnes	1.00		
18	Tonnes	2.00		
19	Tonnes	1.00		
Carried to Collection				
Section No. 4				
Bill No. 2				
Concrete, Formwork And Reinforcement				
			R	

Amount

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

115

116

Carried To Section Summary

R

Section No. 4
Bill No. 2
Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
SECTION NO. 4				
Medium Administration Block				
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.	m ²	36
2		One brick walls	m ²	130
BRICKWORK IN SUPERSTRUCTURE				
Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:				
3		Piers	m ³	3
4		Half brick walls	m ²	138
5		Half brick walls in beam filling.	m ²	28
6		One brick walls	m ²	357
Carried to Collection				
Section No. 4				
Bill No. 3				
Masonry				
			R	

	Unit	Quantity	Rate	Amount
<u>BRICKWORK SUNDRIES</u>				
<u>Brickwork reinforcement:</u>				
7	m	749		
8	m	3 125		
<u>Prestressed fabricated lintels:</u>				
9	m	55		
<u>Turning pieces:</u>				
10	m	55		
11	m	20		
<u>Galvanised wire ties etc:</u>				
12	No	125		
<u>Galvanised hoop iron cramps, ties, etc:</u>				
13	No	125		
<u>FACE BRICKWORK</u>				
<u>Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:</u>				
14	m ²	297		
15	m ²	51		
16	m ²	4		
17	m ²	27		
<u>FACE BRICKWORK COPINGS, SILLS, ETC.</u>				
<u>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:</u>				
18	m	54		
19	m	17		
20	m	14		
Carried to Collection				
Section No. 4				
Bill No. 3				
Masonry				
			R	

		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		
<u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u>					
<u>Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:</u>					
23	12 x 152mm Wide sills set flat and slightly projecting.	m	8		
				Carried to Collection	R
Section No. 4					
Bill No. 3					
Masonry					

Amount

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

118

119

120

Carried To Section Summary

R

Section No. 4
Bill No. 3
Masonry

	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.	m ²	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.	m ²	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				
Waterproofing				
			R	

	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				
<u>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</u>				
1	Roof covering with pitch not exceeding 25 degrees.	m ²	376	
<u>0.58mm galvanised sheet iron, with "chromadek" one side in:</u>				
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				
			R	

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 4</u></p>				
<p><u>Medium Administration Block</u></p>				
<p><u>BILL NO. 6</u></p>				
<p><u>CARPENTRY AND JOINERY</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>SUPPLEMENTARY PREAMBLES</u></p>				
<p><u>Particle board:</u></p>				
<p>Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.</p>				
<p><u>Joinery:</u></p>				
<p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p>				
<p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.</p>				
<p><u>Fixing:</u></p>				
<p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p>				
<p><u>Decorative laminate finish:</u></p>				
<p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.</p>				
<p><u>PREFABRICATED ROOF TRUSSES, ETC.</u></p>				
<p><u>Plate nailed timber roof truss construction:</u></p>				
<p>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 quarantee shall be valid for 10(ten) years .</p>				
<p style="text-align: right;">Carried to Collection</p>				
<p>Section No. 4</p>				
<p>Bill No. 6</p>				
<p>Carpentry And Joinery</p>				
<p style="text-align: center;">124</p>			R	

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

Amount

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

124

125

Carried To Section Summary

R

Section No. 4
Bill No. 6
Carpentry And Joinery

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>Medium Administration Block</u>				
<u>BILL NO. 7</u>				
<u>CEILINGS PARTITIONS AND ACCESS FLOORING</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Descriptions:</u>				
Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.				
Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.				
<u>INSULATION</u>				
<u>Aerolite insulation:</u>				
1		100mm Insulation closely fitted and laid on top of brandering between roof timbers etc.	m ²	297
<u>Wrought softwood</u>				
2		19 x 76mm cornices nailed	m	482
<u>NAILED UP AND SCREW UP CEILINGS</u>				
<u>6mm Everite Nutec or equal approved fibre-cement boards with H-type steel cover strips over joints:</u>				
3		Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres.	m ²	297
4		Extra over ceiling for hinged trap door size 610 x 610mm	No	2
Carried To Section Summary				
Section No. 4				
Bill No. 7				
Ceilings Partitions And Access Flooring				
			R	

	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				
"Solid" or equal approved:				
1	No	2		
150mm 8052-150 Brass flush bolt with keep fixed to metal.				
2	No	2		
150mm 8052-150 Brass flush bolt with keep let into concretet.				
3	No	2		
CZ 80941WC indicator bolt with keep fixed to metal.				
CATCHES, CABIN HOOKS, ETC				
Solid or equal approved:				
4	No	4		
100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.				
LOCKS				
Solid or equal approved:				
5	No	2		
"Code 630" padlock.				
'Solid" or equal approved				
6	No	11		
CZ682-24-95SC"Gower" two lever lockset.				
DOOR CLOSERS				
"Yale" or equal approved				
7	No	2		
Y202RC Door closer with cover fixed to metal				
Carried to Collection			R	
Section No. 4				
Bill No. 8				
Ironmongery				

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

Amount

BILL NO. 8
IRONMONGERY
COLLECTION

Page No

Brought Forward from Page

128

129

Carried To Section Summary

R

Section No. 4
Bill No. 8
Ironmongery

	Unit	Quantity	Rate	Amount
SECTION NO. 4				
Medium Administration Block				
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.				
<u>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 opening 3no in each upright, top rail to be 30mm thick x 100mm wide steel</u>				
1	m	16		
1000mm high fixed to concrete.				
WELDED SCREENS, GATES, ETC.				
Gates to external doors				
2	No	2		
Ditto, double gate and frame 1613 x 2032mm high overall as per Architectural drawing				
PRESSED STEEL DOOR FRAMES				
<u>1,2mm Rebated frames suitable for half brick walls:</u>				
3	No	10		
Frame for door 813 x 2032mm high.				
<u>1,2mm Rebated frames suitable for one brick walls:</u>				
4	No	1		
Frame for door 813 x 2032mm high.				
			Carried to Collection	R
Section No. 4				
Bill No. 9				
Metalwork				

	Unit	Quantity	Rate	Amount
<u>STEEL WINDOWS, DOORS, ETC.</u>				
<u>Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:</u>				
5	No	1		
6	No	14		
7	No	3		
8	No	5		
9	No	1		
<u>STEEL STRONGROOM DOORS, VENTILATORS, ETC.</u>				
<u>Strongroom doors etc. suitable for 220mm walls fixed to brickwork or concrete</u>				
10	No	1		
11	No	1		
<u>ALUMINIUM DOORS AND WINDOWS, ETC</u>				
<u>Purpose made natural anodised aluminium windows glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete</u>				
12	No	3		
13	No	1		
<u>Purpose made natural anodised aluminium doors glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete</u>				
14	No	2		
<u>SECURITY BARRIERS</u>				
15	No	2		
Carried to Collection			R	
Section No. 4				
Bill No. 9				
Metalwork				

	Unit	Quantity	Rate	Amount
<u>STEEL LOUVRES,ETC</u>				
<u>Purpose made louvres:</u>				
16				
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		
17				
Ditto but approximately 3700 x 1000mm high overall				
	No	2		
Carried to Collection				
Section No. 4			R	
Bill No. 9				
Metalwork				

Amount

BILL NO. 9
METALWORK
COLLECTION

Page No

Brought Forward from Page

131

132

133

Carried To Section Summary

R

Section No. 4
Bill No. 9
Metalwork

	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	m ²	297		
30mm Thick on floors and landings.				
GRANOLITHIC				
Untinted wood floated granolithic on concrete				
2	m ²	4		
30mm Thick on floors and landings.				
INTERNAL PLASTER				
Cement plaster on brickwork:				
3	m ²	658		
On walls.				
4	m ²	6		
On narrow widths.				
5	m ²	6		
On concrete soffit.				
CORNER PROTECTORS, DIVIDING STRIPS, ETC				
6	m	7		
30 x 3mm Flat section brass dividing strips between different floor finishes.				
Carried To Section Summary				
Section No. 4			R	
Bill No. 10				
Plastering				

	Unit	Quantity	Rate	Amount
SECTION NO. 4				
Medium Administration Block				
BILL NO. 11				
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	m ²	32		
2	m ²	1		
FLOOR TILING				
300 x 300 x 11.5mm ceramic floor tiles (Prime Cost amount R250.00/m2 excluding vat) fixed with adhesive to screed (screed elsewhere) and flush pointed with tinted waterproof jointing compound				
3	m ²	297		
4	m	211		
Carried To Section Summary				
Section No. 4				
Bill No. 11				
Tiling				
			R	

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 4</u> <u>Medium Administration Block</u> <u>BILL NO. 12</u> <u>PLUMBING AND DRAINAGE</u></p> <p><u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Concrete pipes:</u> Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p> <p><u>uPVC pressure pipes and fittings:</u> 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.</p> <p><u>Copper pipes:</u> Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.</p> <p><u>Fixing of pipes</u> 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</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 4 Bill No. 12 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<p><u>Reducing fittings:</u></p>				
<p>Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.</p>				
<p><u>Wire gratings:</u></p>				
<p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.</p>				
<p><u>Septic tanks:</u></p>				
<p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.</p>				
<p><u>Exposed concrete surfaces:</u></p>				
<p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p>				
<p><u>Excavations:</u></p>				
<p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p>				
<p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p>				
<p><u>Laying, backfilling, bedding, etc of pipes:</u></p>				
<p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p>				
<p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.</p>				
<p><u>Flush pans:</u></p>				
<p>Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.</p>				
<p>Carried to Collection</p>				
<p>Section No. 4 Bill No. 12 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u>				
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
<u>Waste unions:</u>				
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
<u>RAINWATER DISPOSAL</u>				
<u>Approved .6mm galvanised sheet iron with "chromadek" finish ,in:</u>				
1	m	79		
2	No	12		
3	No	6		
4	No	12		
5	m	48		
6	No	12		
7	No	12		
<u>SANITARY FITTINGS</u>				
<u>'Citimetal' stainless steel or equal approved:</u>				
8	No	1		
<u>"Vaal" or equal approved</u>				
9	No	3		
10	No	2		
<u>WASTE UNIONS ETC</u>				
<u>'Cobra Watertech" or equal approved</u>				
11	No	1		
<u>TRAPS ETC</u>				
<u>"Marley' or equal approved</u>				
12	No	1		
			R	
Carried to Collection				
Section No. 4				
Bill No. 12				
Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<u>"Cobra Watertech" or equal approved</u>				
13	No	2		
<u>TAPS, VALVES, ETC</u>				
<u>'Cobra Watertech' or equal approved</u>				
14	No	3		
15	No	6		
16	No	2		
17	No	1		
<u>SANITARY PLUMBING</u>				
<u>uPVC pipes:</u>				
18	m	60		
19	m	55		
20	m	25		
21	m	25		
<u>Extra over uPVC pipes for fittings:</u>				
22	No	10		
23	No	8		
24	No	6		
25	No	12		
26	No	6		
27	No	5		
28	No	2		
29	No	2		
<u>Sundries:</u>				
30	Item			
<u>WATER SUPPLIES</u>				
<u>Class 9 uPVC pressure pipes:</u>				
31	m	60		
			R	
Carried to Collection				
Section No. 4				
Bill No. 12				
Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<u>Extra over uPVC pressure pipes for solvent welded pressure fittings:</u>				
32	No	6		
33	No	4		
34	No	4		
<u>Class o copper pipes:</u>				
35	m	30		
36	m	40		
<u>Extra over class o copper pipes for capillary fittings:</u>				
37	No	20		
38	No	15		
<u>Copper overflow and service pipes:</u>				
39	No	1		
<u>Sundries:</u>				
40	No	1		
41	No	1		
<u>ELECTRICAL WATER HEATERS</u>				
<u>"Kwikot" or equal approved</u>				
42	No	1		
<u>Testing:</u>				
43	Item			
<u>FIRE APPLIANCES ETC.</u>				
<u>'Chubb' or equal approved:</u>				
44	No	1		
45	No	2		
Carried to Collection			R	
Section No. 4				
Bill No. 12				
Plumbing And Drainage				

Amount

BILL NO. 12

PLUMBING AND DRAINAGE

COLLECTION

Page No

Brought Forward from Page

137

138

139

140

141

142

Carried To Section Summary

R

Section No. 4

Bill No. 12

Plumbing And Drainage

	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	m ²	43		
5mm Rough cast glass:				
2	m ²	2		
TOPS, SHELVES, DOORS, MIRRORS, ETC.				
6mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:				
3	No	3		
Carried To Section Summary				
Section No. 4				
Bill No. 13				
Glazing				
				R

	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	m ²	658		
ON FIBRE-CEMENT, ETC.				
Prepare , etc as specified and apply two coats of super acrylic Pva paint:				
2	m ²	297		
3	m	172		
ON METAL				
Prepare, etc as specified and apply two coats of gloss enamel paint on :				
4	m ²	16		
5	m ²	74		
6	m ²	21		
Inside eaves gutter				
7	m ²	60		
ON WOOD, WOOD BOARD				
Prepare,etc as specified and apply two coats of super acrylic Pva paint on:				
8	m ²	36		
Prepare, etc as specified and apply two coats of polyurethane suede varnish:				
9	m ²	9		
10	m ²	3		
Carried To Section Summary			R	
Section No. 4				
Bill No. 14				
Paintwork				

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

SECTION NO. 5

4 x 4 Waterborne Toilet

	Unit	Quantity	Rate	Amount
<u>Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):</u>				
11	m ³	11		
<u>Cart Away</u>				
<u>Extra over excavation for cart away:</u>				
12	m ³	14		
<u>Coarse river sand filling supplied by the Contractor:</u>				
13	m ³	6		
<u>COMPACTION</u>				
<u>Compaction of surfaces:</u>				
14	m ²	26		
<u>Prescribed density tests on filling:</u>				
15	No	8		
<u>SOIL POISONING</u>				
<u>Soil insecticide:</u>				
16	m ²	26		
17	m ²	38		
Carried to Collection			R	
Section No. 5 Bill No. 1 Foundations				

Amount

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

148

149

Carried To Section Summary

R

Section No. 5
Bill No. 1
Foundations

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>4 x 4 Waterborne Toilet</u>				
<u>BILL NO. 2</u>				
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371"				
<u>UNREINFORCED CONCRETE</u>				
<u>15Mpa/19mm Concrete</u>				
1	m ³	2		
2	m ³	1		
3	m	29		
<u>REINFORCED CONCRETE</u>				
<u>25 MPa/19mm Concrete:</u>				
4	m ³	2		
5	m ³	7		
6	m ³	2		
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
7	Sets	5		
<u>FINISHING TOP SURFACE OF CONCRETE</u>				
8	m ²	17		
9	m ²	2		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>				
<u>(CPAP Work Group No 111)</u>				
<u>Rough Formwork to Sides:</u>				
10	m	6		
11	m ²	9		
Carried to Collection				
Section No. 5				
Bill No. 2				
Concrete, Formwork And Reinforcement				
			R	

	Unit	Quantity	Rate	Amount
<u>MOVEMENT JOINTS ETC</u>				
<u>Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed:</u>				
12	m	6		
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:</u>				
13	m	6		
<u>Dividing Strips ,etc</u>				
14	m	2		
<u>REINFORCEMENT(PROVISIONAL)</u>				
<u>Fabric reinforcement:</u>				
15	m ²	26		
<u>Mild steel reinforcement to structural concrete work:</u>				
16	Tonnes	1		
<u>High tensile steel reinforcement to structural concrete work:</u>				
17	Tonnes	1		
18	Tonnes	1		
Carried to Collection				
Section No. 5				
Bill No. 2				
Concrete, Formwork And Reinforcement				
			R	

Amount

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

151

152

Carried To Section Summary

R

Section No. 5
Bill No. 2
Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
<u>BRICKWORK SUNDRIES</u>				
<u>Brickwork reinforcement:</u>				
6	m	64		
7	m	194		
<u>Turning pieces:</u>				
8	m	5		
9	m	2		
<u>Galvanised wire ties etc:</u>				
10	No	24		
<u>Galvanised hoop iron cramps, ties, etc:</u>				
11	No	24		
<u>FACE BRICKWORK</u>				
<u>Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:</u>				
12	m ²	79		
13	m ²	6		
14	m ²	2		
15	m ²	5		
<u>FACE BRICKWORK COPINGS, SILLS, ETC.</u>				
<u>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:</u>				
16	m	2		
17	m	5		
18	m	16		
Carried to Collection			R	
Section No. 5				
Bill No. 3				
Masonry				

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

Amount

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

154

155

156

Carried To Section Summary

R

Section No. 5
Bill No. 3
Masonry

	Unit	Quantity	Rate	Amount
SECTION NO. 5				
4 x 4 Waterborne Toilet				
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.	m ²	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.	m ²	16	
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	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				
			R	

	Unit	Quantity	Rate	Amount
SECTION NO. 5				
4 x 4 Waterborne Toilet				
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				
<u>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</u>				
1	m ²	20		
<u>0.58mm galvanised sheet iron, with "Globalcoat" one side in:</u>				
2	m	8		
Carried To Section Summary				
Section No. 5				
Bill No. 5				
Roof Coverings				
			R	

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 5</u></p>				
<p><u>4 x 4 Waterborne Toilet</u></p>				
<p><u>BILL NO. 6</u></p>				
<p><u>CARPENTRY AND JOINERY</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>SUPPLEMENTARY PREAMBLES</u></p>				
<p><u>Particle board:</u></p>				
<p>Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.</p>				
<p><u>Joinery:</u></p>				
<p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p>				
<p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.</p>				
<p><u>Fixing:</u></p>				
<p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p>				
<p><u>Decorative laminate finish:</u></p>				
<p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.</p>				
<p><u>PREFABRICATED ROOF TRUSSES, ETC.</u></p>				
<p><u>Plate nailed timber roof truss construction:</u></p>				
<p>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 quarantee shall be valid for 10(ten) years .</p>				
<p>Carried to Collection</p>				
<p>Section No. 5</p>				
<p>Bill No. 6</p>				
<p>Carpentry And Joinery</p>				
<p>160</p>				
			R	

	Unit	Quantity	Rate	Amount
<u>Sawn softwood:</u>				
1	No	1		
Roof construction to double pitched roof with two gable ends approximately 16m ² on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).				
<u>ROOF CONSTRUCTION</u>				
<u>Sawn softwood :</u>				
2	m	4		
114 x 38mm Wall plates.				
3	m	5		
114 x 38mm rafters exceeding 2.4m and not exceeding 3.9m.				
4	m	16		
50 x 76mm purlins.				
<u>ROOF SUNDRIES</u>				
<u>Sundries:</u>				
5	m ²	6		
Two coats creosote on sawn timbers.				
<u>EAVES, VERGES, ETC</u>				
<u>Everite FC77 or equal approved pressed fibre-cement:</u>				
6	m	20		
10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.				
<u>Wrought meranti doors:</u>				
<u>Wrought meranti doors hung to steel frames:</u>				
7	No	2		
44mm Framed batten door 813 x 2032mm high of 44 x 150mm 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.				
<u>Semi-solid flush doors</u>				
8	No	4		
40mm semi-solid flush doors with 3.2mm standard hardboard covering on both sides hung to steel frames:				
Carried to Collection			R	
Section No. 5				
Bill No. 6				
Carpentry And Joinery				

Amount

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

160

161

Carried To Section Summary

R

Section No. 5
Bill No. 6
Carpentry And Joinery

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>4 x 4 Waterborne Toilet</u>				
<u>BILL NO. 8</u>				
<u>IRONMONGERY</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Finishes to ironmongery:</u>				
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.				
<u>CATCHES, CABIN HOOKS, ETC</u>				
<u>Solid or equal approved:</u>				
1	No	2		
100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.				
<u>LOCKS</u>				
<u>Solid or equal approved:</u>				
2	No	2		
"Code 630" padlock.				
<u>'Solid" or equal approved</u>				
3	No	4		
CZ682-24-95SC"Gower" two lever lockset.				
4	No	2		
CZ6822461 "Gower" Four lever lockset.				
<u>SUNDRIES</u>				
<u>Solid or equal approved:</u>				
5	No	6		
38mm Diameter rubber door stop plugged.				
<u>Lockable toilet roll holder</u>				
6	No	4		
Lockable toilet roll holder plugged				
Carried To Section Summary				
Section No. 5				
Bill No. 8				
Ironmongery				
			R	

	Unit	Quantity	Rate	Amount
<p><u>STEEL LOUVRES,ETC</u></p>				
<p><u>Purpose made louvres:</u></p>				
<p>5 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</p>	No	2		
<p>Section No. 5 Bill No. 9 Metalwork</p>				
<p>Carried to Collection</p>				
			R	

Amount

BILL NO. 9
METALWORK
COLLECTION

Page No

Brought Forward from Page

165

166

Carried To Section Summary

R

Section No. 5
Bill No. 9
Metalwork

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

	Unit	Quantity	Rate	Amount
SECTION NO. 5				
<u>4 x 4 Waterborne Toilet</u>				
<u>BILL NO. 11</u>				
<u>TILING</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>WALL TILING</u>				
<u>200 x 200 x 5mm White glazed ceramic tiles on brickwork including cement plaster backing</u>				
1	On walls	m ²	2	
<u>FLOOR TILING</u>				
<u>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 compound</u>				
2	On floors and landings.	m ²	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				
			R	

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 5</u></p>				
<p><u>4 x 4 Waterborne Toilet</u></p>				
<p><u>BILL NO. 12</u></p>				
<p><u>PLUMBING AND DRAINAGE</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>SUPPLEMENTARY PREAMBLES</u></p>				
<p><u>Concrete pipes:</u></p>				
<p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p>				
<p><u>uPVC pressure pipes and fittings:</u></p>				
<p>Pipes for water supply shall be of the class stated.</p>				
<p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.</p>				
<p>Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.</p>				
<p><u>Copper pipes:</u></p>				
<p>Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.</p>				
<p><u>Fixing of pipes</u></p>				
<p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level</p>				
<p>Carried to Collection</p>				
<p>Section No. 5</p>				
<p>Bill No. 12</p>				
<p>Plumbing And Drainage</p>				
<p>170</p>				
			R	

	Unit	Quantity	Rate	Amount
<p><u>Reducing fittings:</u></p>				
<p>Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.</p>				
<p><u>Wire gratings:</u></p>				
<p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.</p>				
<p><u>Septic tanks:</u></p>				
<p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.</p>				
<p><u>Exposed concrete surfaces:</u></p>				
<p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p>				
<p><u>Excavations:</u></p>				
<p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p>				
<p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p>				
<p><u>Laying, backfilling, bedding, etc of pipes:</u></p>				
<p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p>				
<p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.</p>				
<p><u>Flush pans:</u></p>				
<p>Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.</p>				
<p>Carried to Collection</p>				
<p>Section No. 5 Bill No. 12 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u>				
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
<u>Waste unions:</u>				
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
<u>RAINWATER DISPOSAL</u>				
<u>Approved .6mm galvanised sheet iron with "chromadek" finish ,in:</u>				
1	m	18		
2	No	4		
3	No	4		
4	m	16		
5	No	4		
6	No	4		
<u>SANITARY FITTINGS</u>				
<u>"Vaal" or equal approved</u>				
7	No	4		
8	No	4		
<u>WASTE UNIONS ETC</u>				
<u>'Cobra Watertech" or equal approved</u>				
9	No	4		
<u>TRAPS ETC</u>				
<u>"Marley" or equal approved</u>				
10	No	4		
<u>"Cobra Watertech" or equal approved</u>				
11	No	4		
Carried to Collection			R	
Section No. 5				
Bill No. 12				
Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<u>TAPS, VALVES, ETC</u>				
<u>'Cobra Watertech' or equal approved:</u>				
12	No	4		
13	No	8		
14	No	4		
<u>SANITARY PLUMBING</u>				
<u>uPVC pipes:</u>				
15	m	30		
16	m	50		
17	m	20		
18	m	30		
<u>Extra over uPVC pipes for fittings:</u>				
19	No	6		
20	No	4		
21	No	4		
22	No	4		
23	No	4		
24	No	4		
25	No	4		
26	No	4		
<u>Sundries:</u>				
27	Item			
<u>WATER SUPPLIES</u>				
<u>Class 9 uPVC pressure pipes:</u>				
28	m	30		
<u>Extra over uPVC pressure pipes for solvent welded pressure fittings:</u>				
29	No	2		
30	No	2		
Carried to Collection			R	
Section No. 5				
Bill No. 12				
Plumbing And Drainage				

Amount

BILL NO. 12

PLUMBING AND DRAINAGE

COLLECTION

Page No

Brought Forward from Page

170

171

172

173

174

Carried To Section Summary

R

Section No. 5
Bill No. 12
Plumbing And Drainage

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 5</u> <u>4 x 4 Waterborne Toilet</u> <u>BILL NO. 13</u> <u>GLAZING</u></p>				
<p><u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>GLAZING TO STEEL WITH PUTTY</u></p>				
<p><u>5mm obscure glass:</u></p>				
<p>1 Panes not exceeding 0,1m2.</p>	m ²	4		
<p>Section No. 5 Bill No. 13 Glazing</p>				
<p>Carried To Section Summary</p>				
			R	

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>4 x 4 Waterborne Toilet</u>				
<u>BILL NO. 14</u>				
<u>PAINTWORK</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>ON INTERNAL FLOATED PLASTER SURFACES</u>				
<u>One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior use</u>				
1	m ²	91		
<u>ON FIBRE-CEMENT, ETC.</u>				
<u>Prepare , etc as specified and apply two coats of super acrylic Pva paint:</u>				
2	m ²	16		
3	m	16		
<u>ON METAL</u>				
<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4	m ²	9		
5	m ²	4		
6	m ²	7		
<u>Inside eaves gutter</u>				
7	m ²	6		
<u>ON WOOD, WOOD BOARD</u>				
<u>Prepare,etc as specified and apply two coats of super acrylic Pva paint on:</u>				
8	m ²	13		
<u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u>				
9	m ²	7		
10	m ²	2		
Carried To Section Summary				
Section No. 5				
Bill No. 14				
Paintwork				
			R	

Amount

SECTION NO. 5

4 x 4 Waterborne Toilet

SECTION SUMMARY

Bill No.		Page
1	FOUNDATIONS	150
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
14	PAINTWORK	177

Section Factor

x 4

Carried to Final Summary

R

Section No. 5
SECTION SUMMARY

SECTION NO. 6

Guard House

	Unit	Quantity	Rate	Amount
<u>Earth filling supplied by the Contractor and compacted to 95% Mod AASHTO density):</u>				
10	m ³	3		
<u>Cart Away</u>				
<u>Extra over excavation for cart away:</u>				
11	m ³	4		
<u>Coarse river sand filling supplied by the Contractor:</u>				
12	m ³	1		
<u>COMPACTION</u>				
<u>Compaction of surfaces:</u>				
13	m ²	9		
<u>Prescribed density tests on filling:</u>				
14	No	2		
<u>SOIL POISONING</u>				
<u>Soil insecticide:</u>				
15	m ²	9		
16	m ²	70		
Carried to Collection			R	
Section No. 6				
Bill No. 1				
Foundations				

Amount

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

180

181

Carried To Section Summary

R

Section No. 6
Bill No. 1
Foundations

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u>				
<u>Guard House</u>				
<u>BILL NO. 2</u>				
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371"				
<u>UNREINFORCED CONCRETE</u>				
<u>15Mpa/19mm Concrete</u>				
1	m ³	1		
2	m ³	1		
3	m	11		
4	m ³	4		
<u>REINFORCED CONCRETE</u>				
<u>25MPa/19mm Concrete:</u>				
5	m ³	1		
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
6	Sets	2		
7	m ²	11		
<u>FINISHING TOP SURFACE OF CONCRETE</u>				
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>				
<u>Rough Formwork to Sides:</u>				
8	m	11		
<u>MOVEMENT JOINTS ETC</u>				
<u>Two layers of .5mm galvanised mild steel slip joints between horizontal concrete and brick surfaces including cement mortar bed:</u>				
9	m	5		
Carried to Collection				
Section No. 6				
Bill No. 2				
Concrete, Formwork And Reinforcement				
			R	

	Unit	Quantity	Rate	Amount
<u>Expansion joints with bitumen impregnated softboard between vertical concrete and brick surfaces:</u>				
10	m	4		
<u>Dividing Strips ,etc</u>				
11	m	1		
<u>REINFORCEMENT(PROVISIONAL)</u>				
<u>Fabric reinforcement:</u>				
12	m ²	9		
Carried to Collection			R	
Section No. 6				
Bill No. 2				
Concrete, Formwork And Reinforcement				

Amount

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

183

184

Carried To Section Summary

R

Section No. 6
 Bill No. 2
 Concrete, Formwork And Reinforcement

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u>				
<u>Guard House</u>				
<u>BILL NO. 3</u>				
<u>MASONRY</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371"				
<u>BRICKWORK</u>				
<u>Sizes in descriptions:</u>				
Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.				
<u>Face bricks:</u>				
Bricks shall be ordered timeously to obtain uniformity in size and colour.				
<u>Pointing:</u>				
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.				
<u>SAMPLES</u>				
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.				
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>				
1	Half brick walls.	m ²	3	
2	One brick walls	m ²	11	
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>				
3	Piers	m ³	1	
4	Half brick walls	m ²	9	
5	One brick walls	m ²	34	
Carried to Collection				
Section No. 6				
Bill No. 3				
Masonry				
			R	

	Unit	Quantity	Rate	Amount
<u>BRICKWORK SUNDRIES</u>				
<u>Brickwork reinforcement:</u>				
6	m	36		
7	m	149		
<u>Prestressed fabricated lintels:</u>				
8	m	1		
<u>Turning pieces:</u>				
9	m	6		
<u>Galvanised wire ties etc:</u>				
10	No	11		
<u>Galvanised hoop iron cramps, ties, etc:</u>				
11	No	11		
<u>FACE BRICKWORK</u>				
<u>Face bricks (Prime cost R5 500/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints:</u>				
12	m ²	34		
13	m ²	5		
14	m ²	12		
15	m ²	5		
<u>FACE BRICKWORK COPINGS, SILLS, ETC.</u>				
<u>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:</u>				
16	m	7		
17	m	5		
18	m	1		
Carried to Collection			R	
Section No. 6				
Bill No. 3				
Masonry				

		Unit	Quantity	Rate	Amount
19	<p><u>NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS</u> <u>Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc:</u> 12 x 152mm Wide sills set flat and slightly projecting.</p>	m	5		
Section No. 6 Bill No. 3 Masonry	Carried to Collection			R	

Amount

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

186

187

188

Carried To Section Summary

R

Section No. 6
Bill No. 3
Masonry

	Unit	Quantity	Rate	Amount
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.	m ²	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.	m ²	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				
Section No. 6				
Bill No. 4				
Waterproofing				
			R	

	Unit	Quantity	Rate	Amount
SECTION NO. 6				
Guard House				
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				
<u>.5mm "Klip-lok light industrial" galvanised troughed sheet steel with "chromadek" finish one side, fixed to 76 x 50mm purlin complete under 5 year guarantee by an approved firm of specialists, all in accordance with the materials supplied and methods employed by the manufacturer</u>				
1	m ²	12		
<u>.8mm galvanised sheet iron, with "chromadek" one side in:</u>				
2	m	10		
Carried To Section Summary			R	
Section No. 6				
Bill No. 5				
Roof Coverings				

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 6</u></p>				
<p><u>Guard House</u></p>				
<p><u>BILL NO. 6</u></p>				
<p><u>CARPENTRY AND JOINERY</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles see "Specification of materials and methods to be used - PW371</p>				
<p><u>SUPPLEMENTARY PREAMBLES</u></p>				
<p><u>Particle board:</u></p>				
<p>Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.</p>				
<p><u>Joinery:</u></p>				
<p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p>				
<p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.</p>				
<p><u>Fixing:</u></p>				
<p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p>				
<p><u>Decorative laminate finish:</u></p>				
<p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.</p>				
<p><u>PREFABRICATED ROOF TRUSSES, ETC.</u></p>				
<p><u>Plate nailed timber roof truss construction:</u></p>				
<p>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 quarantee shall be valid for 10(ten) years .</p>				
<p style="text-align: right;">Carried to Collection</p>				
<p>Section No. 6</p>				
<p>Bill No. 6</p>				
<p>Carpentry And Joinery</p>				
<p style="text-align: center;">192</p>				
			R	

	Unit	Quantity	Rate	Amount
<u>Sawn softwood:</u>				
1	No	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).				
<u>ROOF CONSTRUCTION</u>				
<u>Sawn softwood :</u>				
2	m	11		
114 x 38mm Wall plates.				
<u>ROOF SUNDRIES</u>				
<u>Sundries:</u>				
3	m ²	2		
Two coats creosote on sawn timbers.				
<u>EAVES, VERGES, ETC</u>				
<u>Everite FC77 pressed fibre-cement:</u>				
4	m	16		
10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.				
<u>JOINERY SUNDRIES</u>				
<u>Wrought Meranti</u>				
5	m ²	1		
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				
<u>SEMI SOLID CORE FLUSH DOORS</u>				
<u>44 semi-solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames:</u>				
6	No	1		
40mm Door 813 x 2032mm high.				
Carried to Collection			R	
Section No. 6				
Bill No. 6				
Carpentry And Joinery				

Amount

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

192

193

Carried To Section Summary

R

Section No. 6
Bill No. 6
Carpentry And Joinery

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u>				
<u>Guard House</u>				
<u>BILL NO. 7</u>				
<u>CEILINGS PARTITIONS AND ACCESS FLOORING</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Descriptions:</u>				
Items described as nailed shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete.				
Items described as plugged shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as bolted the bolts have been given.				
<u>INSULATION</u>				
<u>Aerolite insulation:</u>				
1 100mm Insulation closely fitted and laid on top of branderling between roof timbers etc.	m ²	9		
<u>Wrought softwood</u>				
2 19 x 76mm cornices nailed	m	16		
<u>NAILED UP AND SCREW UP CEILINGS</u>				
<u>6mm Everite Nutec fibre-cement boards with H-type steel cover strips over joints:</u>				
3 Ceilings including 38 x 38mm sawn softwood branderling at 400mm centres.	m ²	9		
4 Extra over ceiling for hinged trap door size 610 x 610mm	No	1		
Carried To Section Summary			R	
Section No. 6				
Bill No. 7				
Ceilings Partitions And Access Flooring				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u>				
<u>Guard House</u>				
<u>BILL NO. 8</u>				
<u>IRONMONGERY</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Finishes to ironmongery:</u>				
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.				
<u>HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC</u>				
<u>"Solid":</u>				
1	No	1		
CZ 80941WC indicator bolt with keep fixed to metal.				
<u>LOCKS</u>				
<u>'Solid"</u>				
2	No	2		
CZ6822461 "Gower" Four lever lockset.				
<u>DOOR CLOSERS</u>				
<u>"Yale"</u>				
3	No	1		
Y202RC Door closer with cover fixed to metal				
<u>BATHROOM FITTINGS</u>				
<u>Kimberley-Clark:</u>				
4	No	1		
19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.				
5	No	1		
Lockable toilet roll holder plugged.				
<u>SUNDRIES</u>				
<u>Solid:</u>				
6	No	2		
38mm Diameter rubber door stop plugged.				
Carried To Section Summary			R	
Section No. 6				
Bill No. 8				
Ironmongery				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u>				
<u>Guard House</u>				
<u>BILL NO. 9</u>				
<u>METALWORK</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Descriptions:</u>				
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.				
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1,2mm Rebated frames suitable for half brick walls:</u>				
1	No	1		
<u>1,2mm Rebated frames suitable for one brick walls:</u>				
2	No	1		
<u>STEEL WINDOWS, DOORS, ETC.</u>				
<u>Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:</u>				
3	No	2		
4	No	2		
5	No	1		
<u>STEEL LOUVRES,ETC</u>				
<u>Purpose made louvres:</u>				
6	No	2		
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				
Carried To Section Summary			R	
Section No. 6				
Bill No. 9				
Metalwork				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u>				
<u>Guard House</u>				
<u>BILL NO. 10</u>				
<u>PLASTERING</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>GRANOLITHIC</u>				
<u>Untinted wood floated granolithic on concrete</u>				
1	m ²	9		
2	m	14		
<u>INTERNAL PLASTER</u>				
<u>Cement plaster on brickwork:</u>				
3	m ²	43		
4	m ²	2		
5	m	1		
<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>				
Carried To Section Summary				
Section No. 6			R	
Bill No. 10				
Plastering				

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 6</u> <u>Guard House</u> <u>BILL NO. 11</u> <u>TILING</u></p> <p><u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371</p> <p><u>WALL TILING</u> <u>200 x 200 x 5mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere):</u></p>				
<p>1 On walls in isolated panels, splashbacks, etc.</p>	m ²	1		
<p>Section No. 6 Bill No. 11 Tiling</p>				<p style="text-align: right;">R</p>

Carried To Section Summary

	Unit	Quantity	Rate	Amount
<p><u>SECTION NO. 6</u> <u>Guard House</u> <u>BILL NO. 12</u> <u>PLUMBING AND DRAINAGE</u></p> <p><u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Concrete pipes:</u> Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p> <p><u>uPVC pressure pipes and fittings:</u> 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.</p> <p><u>Copper pipes:</u> Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.</p> <p><u>Fixing of pipes</u> 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</p>				
<p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 Bill No. 12 Plumbing And Drainage</p>			R	
200				

	Unit	Quantity	Rate	Amount
<p><u>Reducing fittings:</u></p>				
<p>Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.</p>				
<p><u>Wire gratings:</u></p>				
<p>Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.</p>				
<p><u>Septic tanks:</u></p>				
<p>Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.</p>				
<p><u>Exposed concrete surfaces:</u></p>				
<p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.</p>				
<p><u>Excavations:</u></p>				
<p>No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p>				
<p>'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.</p>				
<p><u>Laying, backfilling, bedding, etc of pipes:</u></p>				
<p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.</p>				
<p>Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.</p>				
<p><u>Flush pans:</u></p>				
<p>Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.</p>				
<p>Carried to Collection</p>				
<p>Section No. 6 Bill No. 12 Plumbing And Drainage</p>			R	

	Unit	Quantity	Rate	Amount
<u>Stainless steel basins, sinks, wash troughs, urinals, etc:</u>				
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
<u>Waste unions:</u>				
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
<u>RAINWATER DISPOSAL</u>				
<u>Approved .6mm galvanised sheet iron with "chromadek" finish ,in:</u>				
1	m	16		
2	No	4		
3	No	2		
4	m	8		
5	No	2		
6	No	2		
<u>SANITARY FITTINGS</u>				
<u>"Vaal"</u>				
7	No	1		
8	No	1		
<u>WASTE UNIONS ETC</u>				
<u>'Cobra Watertech'</u>				
9	No	1		
<u>TRAPS ETC</u>				
<u>"Marley'</u>				
10	No	1		
<u>TAPS, VALVES, ETC</u>				
<u>'Cobra Watertech':</u>				
11	No	1		
Carried to Collection			R	
Section No. 6				
Bill No. 12				
Plumbing And Drainage				

		Unit	Quantity	Rate	Amount
12	15mm Gate valves	No	2		
	<u>SANITARY PLUMBING</u>				
	<u>uPVC pipes:</u>				
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		
	<u>Extra over uPVC pipes for fittings:</u>				
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		
	<u>Sundries:</u>				
25	Testing waste pipe system.	Item			
	<u>WATER SUPPLIES</u>				
	<u>Class 9 uPVC pressure pipes:</u>				
26	63mm Pipes laid in and including trenches not exceeding 1000mmm deep	m	30		
	<u>Extra over uPVC pressure pipes for solvent welded pressure fittings:</u>				
27	63mm Elbow	No	2		
28	63mm Tee	No	2		
29	63mm Reducer.	No	1		
	<u>Class o copper pipes:</u>				
30	15mm Pipes	m	15		
31	22mm Pipes.	m	10		
	Carried to Collection			R	
	Section No. 6				
	Bill No. 12				
	Plumbing And Drainage				

	Unit	Quantity	Rate	Amount
<u>Extra over class o copper pipes for capillary fittings:</u>				
32	No	5		
33	No	5		
<u>Copper overflow and service pipes:</u>				
34	No	1		
<u>Sundries:</u>				
35	No	1		
<u>Testing:</u>				
36	Item			
<u>FIRE APPLIANCES ETC.</u>				
<u>'Chubb':</u>				
37	No	1		
Carried to Collection			R	
Section No. 6				
Bill No. 12				
Plumbing And Drainage				

Amount

BILL NO. 12
PLUMBING AND DRAINAGE
COLLECTION

Page No

Brought Forward from Page

200

201

202

203

204

Carried To Section Summary

R

Section No. 6
Bill No. 12
Plumbing And Drainage

	Unit	Quantity	Rate	Amount
SECTION NO. 6				
Guard House				
BILL NO. 13				
GLAZING				
PREAMBLES				
For preambles see "Specification of materials and methods to be used - PW371				
GLAZING TO STEEL WITH PUTTY				
5 mm Clear float glass:				
1	m ²	4		
Panes exceeding 0,1m2 and not exceeding 0,5m2.				
5 mm Rough cast glass:				
2	m ²	1		
Panes exceeding 0,1m2 and not exceeding 0,5m2.				
TOPS, SHELVES, DOORS, MIRRORS, ETC.				
6 mm Silvered float glass copper backed mirrors with polished edges fixed with double sided adhesive tape:				
3	No	1		
Mirror 450 x 600 mm high.				
Carried To Section Summary				
Section No. 6				
Bill No. 13				
Glazing				
			R	

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u>				
<u>Guard House</u>				
<u>BILL NO. 14</u>				
<u>PAINTWORK</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
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'.				
<u>ON FLOATED PLASTER</u>				
<u>Prepare , etc as specified and apply two coats of super acrylic paint:</u>				
1	m ²	43		
<u>ON FIBRE-CEMENT, ETC.</u>				
<u>Prepare , etc as specified and apply two coats of super acrylic Pva paint:</u>				
2	m ²	9		
3	m	16		
<u>ON METAL</u>				
<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4	m ²	3		
5	m ²	10		
<u>Inside eaves gutter</u>				
6	m ²	6		
Carried to Collection			R	
Section No. 6				
Bill No. 14				
Paintwork				

	Unit	Quantity	Rate	Amount
<p><u>Prepare,etc as specified and apply two coats of super acrylic Pva paint on:</u></p>				
7	m ²	3		
<p><u>ON WOOD, WOOD BOARD</u></p>				
<p><u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u></p>				
8	m ²	3		
Carried to Collection				
				R

Section No. 6
 Bill No. 14
 Paintwork

Amount

BILL NO. 14
PAINTWORK
COLLECTION

Page No

Brought Forward from Page

207

208

Carried To Section Summary

R

Section No. 6
Bill No. 14
Paintwork

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

SECTION NO. 7
Provisional Sums

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.	Item	
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	Item	

Community liason officer

13	Provide the budgetary allowance of R120 000.00 (One Hundred and Twenty Thousand Rands) for employment 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	Item	

Carried To Section Summary

R

Section No. 7

Bill No. 1

Provisional Sums

		Amount	
<u>Project Steering Committee (PSC)</u>			
16	Provide the budgetary allowance of R12 000.00 (Twelve Thousand Rands) for employment 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	
<u>Joinery fittings</u>			
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	
<u>Occupational Health and Safety Consultancy Services</u>			
22	Provide the sum of R500 000.00 (Five Hundred Thousand Rands) for occupational health and safety services to be appointed by the Employer	Item	500 000 00
23	Profit	Item	
24	Attendance	Item	
<u>WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS (OHS)</u>			
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	
<u>WORK EXECUTED BY SEPARATE DIRECT CONTRACTORS (SF)</u>			
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			

Amount

30 Attendance

Item

Carried To Section Summary

R

Section No. 7
Bill No. 1
Provisional Sums

214

Amount

SECTION NO. 7

Provisional Sums

SECTION SUMMARY

Page

Brought forward from page 212

Brought forward from page 213

Brought forward from page 214

Carried to Final Summary

R

Section No. 7
SECTION SUMMARY

Section No.	<u>FINAL SUMMARY</u>	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.		600 000	00
	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.		600 000	00
	ADD: PART B AND PART C			
	ELECTRICAL INSTALLATIONS AND CIVIL WORKS			
	Carried to Next		R	
	FINAL SUMMARY			

Brought from Previous

R

SubTotal excluding Value Added Tax

ADD VAT @ 15%:

Carried to Tender

R

FINAL SUMMARY

REPUBLIC OF SOUTH AFRICA
LIMPOPO DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE

MOKHARI COMBINED SCHOOL

LDPWRI-B/20290

PART B
ELECTRICAL INSTALLATIONS
BILLS OF QUANTITIES

Summary- Mokhari School

BILL	DESCRIPTION	AMOUNT
1A and 1B	Preliminary and General and Transport	R 0,00
2	Internal Installation	R 0,00
3	Site Reticulation	R 0,00
4	PVC Sleeves for Electric Installation	R 0,00
5	HVAC	R 0,00
6	Prov Sum for Eskom Bulk Power Supply	R 327 500,00
7	Prov Sum for CCTV	R 100 000,00
SUB TOTAL A		R 427 500,00
Add 10% Contingency		R 42 750,00
SUB TOTAL		R 470 250,00
Add 15% VAT		R 70 537,50
TOTAL FOR THE WORKS		R 540 787,50
<p>New Rate Items:</p> <p>Mark-up percentage on New Rate Items%. Labour cost shall be based on the bill of rates.</p> <p>CONTRACTOR:</p> <p>-----</p> <p>SIGNATURE:</p> <p>-----</p> <p>DATE:</p> <p>-----</p>		

Internal 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

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

ITEM	DESCRIPTION	UNIT	Scheduled 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

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

ITEM	DESCRIPTION	UNIT	Scheduled 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
	SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR FLUSH INSTALLATION INCLUDING COVERPLATES			
5				
	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			

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

	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

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

ITEM	DESCRIPTION	UNIT	Scheduled Qty		TOTAL
	TOTAL BROUGHT FORWARD				0,00
6	SQUARE TUBING				
	POWER SKIRTING				
	Supply and installation of power skirting complete with covers and end caps. Tenderers shall make provision for				
6,1	Material				
6,2	Installation				
7	PHOTOCELL / DAYLIGHT SWITCH				
	Royce Thompson type Oasis 2000, Min lamp Load of 10A or equal				
7,1	Material	No	8		0,00
7,2	Installation	No	8		0,00
8	BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOF				
	Installation	lot	5		0,00

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

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
ITEM	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

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

	Total for Bill 3 carried to summary sheet				0,00
--	---	--	--	--	------

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	BILL 4			
12	DISTRIBUTION BOARDS AND KIOSKS			
	Site Kiosk. Refer to the Kiosk Schematics			
12,1	Material	No	1	0,00
12,2	Installation, including Kiosk plinth	No	1	0,00
	Block DBs, Refer to Schematics			
12,3	Material	No	5	0,00
12,4	Installation	No	5	0,00
	Telephone and Computer Distribution Board			
	500 x 500 x 250 mm surface type distribution board installed flush			
12,5	Material	No	1	0,00
12,6	Installation	No	1	0,00
	Telephone point	No		
12,7	Material	No	5	0,00
12,8	Installation	No	5	0,00
	Computer point			
12,9	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

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

Site Reticulation Bill- Mokhari School

ITEM	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
13,2	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

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

ITEM	DESCRIPTION	UNIT	Scheduled Qty	TOTAL
	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

NB. EXECUTION METHOD: L = LABOUR USE, M = MACHINERY USE

Site Reticulation Bill- Mokhari School

ITEM	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				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 Reference	Description	Unit	Qty	Rate	Amount
	SABS 1200 D	<u>SCHEDULE 1: EARTHWORKS</u>				
		<u>SITE CLEARANCE</u>				
Alternative see 1200C 1200DM	8.3.1	<u>Clear and grub area for</u> Buildings	m ²	1978		
Alternative see 1200DB 1200DM	8.3.1	<u>PREPARATION AND STRIPPING OF SITE</u> <u>Remove topsoil to a depth of 150mm and</u> Stockpile on site within freehaul distance and maintain Spoil at designated spoil site	m ³ m ³	296.70 118.68		
		<u>EXCAVATION</u>				
	8.3.2	<u>Excavate in all materials and use as fill, compacted to 90% mod</u> <u>AASHTO density for:</u> Platforms	m ³	356.04		
	8.3.2	<u>Extra over item 8.3.2 (a) for</u> Intermediate excavation Hard rock excavation Boulder excavation class A Boulder excavation class B	m ³ m ³ m ³ m ³	106.81 71.21 7.12 7.12		
	8.3.4	<u>COMMERCIAL MATERIAL</u> <u>Extra over item 8.3.2 (a) for importation of materials from:</u> Commercial sources selected by the Contractor	m ³	237.36		
TOTAL CARRIED FORWARD						

Item	Payment Reference	Description	Unit	Qty	Rate	Amount
ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
		<u>DESIGNATED BORROW PIT (ARRANGED BY EMPLOYER)</u>				
	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	<u>Overhaul (Provisional)</u>				
		Limited overhaul	m³	356.04		
		Long overhaul	m³.km	237.36		
		<u>COMPACTION OF BACKFILLING</u>				
	8.3.9	Selected material compacted to 93% mod AASHTO density	m³	1,424.16		
		Mod AASHTO Tests	No.	29.00		
Carried forward to Summary of Schedules						

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)				
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	m ³	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						

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
1.4	SABS 1200 DM	SUNDRIES				
	8.3.10	Materials bladed to windrow	m ³	0.00		
	8.3.11	Extra-over items 8.3.7 and 8.3.8 for temporary stockpiling of material	m ³	30.00		
		Construction of storm water berm along 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	m ³	422.40		
	8.3.4	Extra over items .1 to .2 inclusive for class of Intermediate excavation	m ³	84.48		
		Hard rock excavation	m ³	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	m ²	0.00		
	8.2.2	60mm Type S-A 35mPa for roadway (Grey	m ²	2,816.00		
	8.2.1	The construction of edge restraints	m	125.16		
TOTAL CARRIED FORWARD						

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
1.8	SANS 1200 MK	KERBING AND CHANNELLING				
	8.2.2	Supply, bed, lay, & joint concrete sections:				
1.8.1		400X200 Concrete edge strip (Class 20/19 Concrete Strength).				
		a) 1m Length on straight	m	155.00		
		b) 330mm Length on curves	m	20.00		
1.8.2		300X150 Barrier Kerb (SABS 927 Fig 3).	m	558.00		
1.8.3		Mountable Kerb (SABS 927 Fig 3).	m	111.60		
9	1200 DK	SUBSOIL DRAINS				
9.1	1200 DK 8.2	Supply and install A4 Bidim Geosynthetic materials to the subsoil drains , as per drawings.	m ²	40.00		
9.2	1200 DK 8.2	Supply and install 110mm Class 6 HDPE perforated pipe to the subsoil drains outlet, as per drawings.	m	50.00		
9.3	1200 DK 8.2	Supply and install 1,5mm smooth HDPE Geomembrane as the liner to the channel, as per drawings.	m ²	44.00		
9.4	1200 DK 8.2	Supply and install A7 Bidim Geosynthetic proetction layer to channel liner, as per drawings.	m ²	60.00		
9.5	SANS 1200 AH	CONCRETE				
9.5.1	8.4.3	Supply, place and shape 25MPa concrete in hyson cells on the A10 Bidim Geosynthetic proetction layer , as per drawings.	m ³	50.03		
9.5.2	8.4.3	Supply, place and shape 25MPa concrete in hyson cells in the leachate outlet channel , as per drawings.	m ³	12.51		
TOTAL CARRIED FORWARD						

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

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.	m ³	7.50		
10.1.2		Disposal of unsuitable or surplus material off site	m ³	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	m ³	2.25		
10.2.2	8.4.2	Blinding layer, 50 mm minimum, prescribed mix, Grade 15MPa/20 mm	m ²	2.50		
10.2.3	8.4.3	Strength concrete Grade 25 MPa/20 mm for:				
10.3		Concrete Channels	m ³	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	m ²	50.00		
TOTAL CARRIED TO SUMMARY						

SCHEDULE3: FENCING

Item 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	m ²	0.00		
SUB - TOTAL CARRIED TO SUMMARY						

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
		SCHEDULE 4 : WATER SUPPLY PIPELINES AND WATER SOURCE				
	SABS 1200DB	EARTHWORKS : PIPE TRENCHES				
3.1		SITE CLEARANCE				
3.1.1	8.3.1(a)	Clear 2m wide vegetation and trees of girth up to 1m	m	1,520.00		
3.1.2	8.3.1(b)	Remove trees over 1 m and up to 2 m girth	No.	0.00		
3.2	PSDB12	EXCAVATION				
3.2.1		Excavate in all materials for trenches for pipes with a diameter between 20 mm and 100 mm, backfill compact and dispose of surplus/unsuitable material Up to 1,5m in depth	m ³	1,520.00		
3.2.1.1	8.3.2(b)	Extra-over item 3.2.1 incl. for excavation (provisional) in :				
		a) Intermediate material	m ³	304.00		
		b) Hard rock material	m ³	228.00		
3.2.1.2		Extra over Item 3.2.1 a) Backfill and compact by means of labour intensive construction methods in layers of 200mm compacted to 90% mod AASHTO	m ³	1,520.00		
3.2.2		EXCAVATION ANCILLARIES				
3.2.2.1	8.3.3.1(a)	Imported backfill materials from designated borrow pits (Only if approved by Engineer)	m ³	532.00		
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
3.2.2.3	8.3.3.3	Compaction in road reserves	m ³	0.00		
3.2.2.4	8.3.3.4	Overhaul :				
		a) Short haul	m ³	-		
		b) Truck haul	m ³ /km	-		
3.2.4	SABS120 OLB	PROVISION OF BEDDING (PIPES)				
3.2.4.1	8.2.1	Provision of bedding material from trench excavations				
		a) Selected granular material	m ³	228.00		
		b) Selected fill material	m ³	532.00		
3.2.4.2		Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries)				
		a) Selected granular material	m ³	273.60		
		b) Selected fill material	m ³	638.40		
TOTAL CARRIED FORWARD						

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
3.2.4.4	8.2.3	Concrete bedding	m ³	5.00		
3.2.4.5	8.2.4	Encasing of pipes in Class 19/20 concrete	m ³	5.00		
3.2.4.6	8.2.5	Overhaul of material for bedding cradle and selected fill blanket	m ³ km	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)				
3.2.5.1		uPVC pipes				
		a) 75 Class 12	m	-		
		b) 75 Class 9	m	-		
3.2.5.2		HDPE pipes Type IV				
		a) 20 mm class 6	m	60.00		
		b) 50 mm class 6	m	440.00		
		c) 75 mm class 10	m	20.00		
3.2.5.3		GMS pipes (medium duty)				
		a) 15 mm Ø	m	-		
		b) 20 mm Ø	m	-		
		c) 25 mm Ø	m	-		
3.2.6		VALVES				
3.2.6.1		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	No.	4.00		
		b) 75 mm	No.	0.00		
3.2.6.2		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		
3.2.6.3		Ditto for 40 Ø and smaller pipes as detailed in Drawing for the following diameters				
		a) 25 Ø	No.	-		
		b) 32 Ø	No.	-		
		c) 40 Ø	No.	-		
3.2.6.4		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		
TOTAL CARRIED FORWARD						

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
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	m ³	1.00		
		b) Rough formwork	m ²	1.00		
3.2.14		BOREHOLE DEVELOPMENT				
		Geohydrological Servies				
		Sitting of drilling sites. Allowance 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.	No	1.00		
		Reporting				
		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		
TOTAL CARRIED FORWARD						

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
3.2.16		Site Establishment/De-establishment				
		Mobilisation and set up of plant to/at first borehole. Rate to including inter-borehole moves and de-establishment 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				
		NEW BOREHOLE INSTALLATION				
		<i>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 accordance to manufactures and Engineers' specification.</i>				
		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. <i>Engineer to approve prior to installation.</i> 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			
	Pipework					
	<i>Supply and install borehole discharge pipework complete with flow meter, non return and pressure valves on the following pipework.</i>					
	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			
TOTAL CARRIED FORWARD						

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
3.2.18		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	No.	3.00		
		Submersible pump steel cage				
		Supply and install borehole discharge pipework complete as per	No	1.00		
		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 20m³/hr package water treatment plant	Prov. Sum	1		350,000.00	R 350,000.00
	Overheads, charges and profit.	%	350,000.00			
TOTAL CARRIED FORWARD						

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						R -
		WATER STORAGE				
		Water Tanks				
		5 000 Litre polyethylene water tank (JoJo make or equivalent). 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 equivalent). 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		
		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 repainting, rust protection and replacing corroded purlins	P.Sum	1	10,000.00	R 10,000.00
		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	
		l) 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	
TOTAL CARRIED FORWARD						

SCHEDULE 4:WATER SUPPLY PIPELINES AND WATER SOURCE

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		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	
		l) 40mm Ø GMS ELBOW F/F	No	4	Included	
		m) 40mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)	No	4	Included	
		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		
TOTAL CARRIED TO SUMMARY						

SCHEDULE 5:EXTERNAL SEWER RETICULATION

Item	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	m ³	135.00		
	b) Exceeding 1,0m but not exceeding 2.0m	m ³	6.75		
4.2	Extra-over all excavations in pickable material irrespective of depth. for excavating in:-				
4.2.1	Intermediate excavation	m ³	27.00		
4.2.2	Hard rock excavation	m ³	20.25		
4.3	Excavation Ancilliaris				
4.3.1	Excavate and dispose of unsuitable material from trench bottom (provisional)	m ³	6.75		
4.3.2	Make deficiency in backfill material (Provisional)				
	a) from other necessary excavation on Site	m ³	6.75		
	b) by importation designated borrow pits	m ³	6.75		
	c) Compaction in platform reserves	m ³	6.75		
4.4	Existing services				
	a) Services that adjoin a trench	m	12.00		
	b) Services that intersect a trench	No	5.00		
Amount 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	m ³	20.25		
	b) Selected fill material	m ³	56.70		
4.5.2	Supply only of Bedding by Importation From Commercial Sources (provisional)				
	a) Selected granular material	m ³	20.25		
	b) Selected fill material	m ³	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	-		
Amount Carried Forward					

SCHEDULE 5:EXTERNAL SEWER RETICULATION

Item	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	Anchor blocks in strength concrete 25Mpa /19mm including all formwork. reinforcement. reinforcement. etc.				
4.9.1.2	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 Carried to Forward					

SCHEDULE 5:EXTERNAL SEWER RETICULATION

Item	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.	m ³	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.	m ³	10.95		
	Risk of collapse to sides septic tank excavations not exceeding 1,5m deep.	m ²	49.09		
	Earthfilling obtained from the excavations or stock piles compacted to 93% in septic tank.	m ³	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.	m ³	5.48		
	25 MPa Reinforced concrete base.	m ³	5.48		
	Backfilling to sides of septic tank.	m ³	7.30		
	Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.	m ²	40		
	Rough formwork to soffit of slab.	m ²	36.51		
	Plaster to vertical surfaces.	m ²	49.09		
	One brick wall in commons including wire ties for septic tank walls.	m ²	6.588		
	Two brick wall in commons including wire ties for septic tank walls.	m ²	49.09		
	Lintels as permanent shutters	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.	m ³	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		
Amount Carried to Forward					

SCHEDULE 5:EXTERNAL SEWER RETICULATION

Item	Description	Unit	Qty	Rate	Amount
Amount Brought Forward					
	<p>Soakaway: 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.</p> <p>Extra over soakaway excavations for carting away surplus material from excavations to a dumping site to be located by the Contractor.</p> <p>Risk of collapse to sides of soakaway excavations exceeding 1,5m and not exc. 2m deep.</p> <p>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape laid over soak away</p> <p>0,6mm IBR sheeting laid across walls.</p> <p>Lintels laid above soakaway</p>	<p>m</p> <p>m³</p> <p>m²</p> <p>m²</p> <p>m²</p> <p>m</p>	<p>35</p> <p>5</p> <p>28</p> <p>35</p> <p>35</p> <p>35</p>		
Amount Carried to Final Summary					

SCHEDULE 6:COVERED PARKING

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	m ³	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 ka/m ²	m ²	0.00		
5.3		CONCRETE				
5.3.1	8.2.5	Strength concrete, Grade 25MPa/19 mm in Column Footings	m ³	18.94		
5.3.2		Blinding layer, Grade 10/19,0 mm	m ³	2.37		
5.3.4	8.2.6	Unformed surface finishes				
5.3.4.1		Wood-float to all floors except	m ²	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. cussets. 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	m ³	1.50		
		M12 Holding Down Bolts - 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		
		Unequal Angle rafter bracing	t	1.78		

SCHEDULE 6:COVERED PARKING

	200 x 200 x 6mm Base Plates	No.	86.00	
	Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	258.00	
	Sika Non-shrink grout or Similar	m ³	0.69	
	M12 Holding Down Bolts - Grade 8.8 hexhead 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 8.8	No.	66.00	
	Sika Non-shrink grout or Similar	m ³	0.18	
	M12 Holding Down Bolts - Grade 8.8 hexhead bolts	No.	88.00	
TOTAL CARRIED FORWARD				

SCHEDULE 6:COVERED PARKING

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	Estimated QTY	0.00	AMOUNT
TOTAL BROUGHT FORWARD						
5.5.5	8.3.5	SITE WELDING				
5.5.5.1		Site weld items inclusive	m	88.80		
		CLADDING AND SHEETING				
		ROOF CLADDING				
5.6		Supply, deliver to Site, erect and fix green chromedek sheeting/cladding etc, including the supply of all necessary fasteners etc. and cutting and notching: (See Drawings)	m ²	1,173.20		
5.6.2	8.2.3	Approved troughed profile-sheeting to roofs, 0,6mm 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.	t	18.58		
TOTAL CARRIED TO SUMMARY						

DEPARTMENT OF EDUCATION : LIMPOPO

STORM DAMAGED SCHOOL: MOKHARI SECONDARY SCHOOL

PRELIMINARY COSTS ESTIMATE FOR CIVIL ENGINEERINGS SERVICES

SUMMARY OF BILL OF QUANTITIES

SCHEDULE 1: EARTHWORKS

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

SCHEDULE 3: STEEL PALISADE FENCE

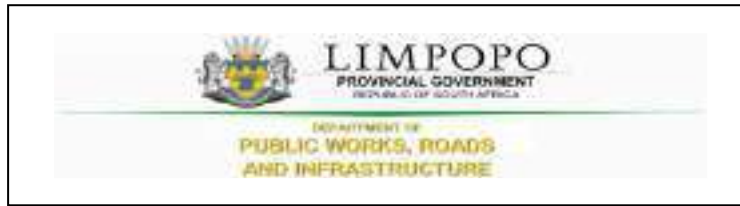
SCHEDULE 4: WATER SUPPLY PIPELINES AND WATER SOURCE

SCHEDULE 5: EXTERNAL SEWER RETICULATION

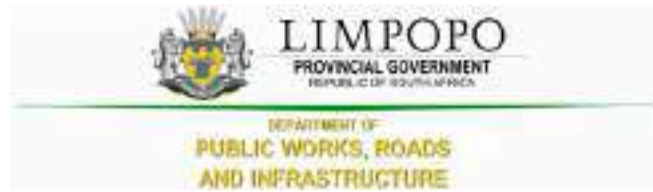
SCHEDULE 6: COVERED PARKING

TENDER (CONTRACT) SUM (CIVIL AND STRUCTURAL WORKS)

0.00



PART C3.2: OHS SPECIFICATIONS



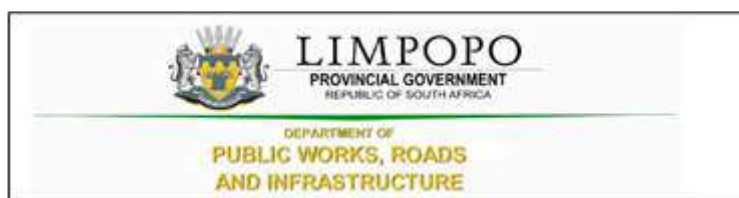
PART C4 SITE INFORMATION

PART C3 SCOPE OF WORKS

SCOPE OF WORKS

BID NUMBER: LDPWRI-B/20290

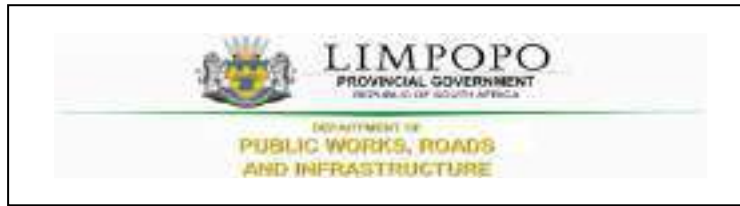
APPOINTMENT OF A CONTRACTOR FOR
REFURBISHMENT OF 12 CLASSROOMS, 16 WATERBORNE TOILETS AND
NUTRITIONAL BLOCK, CONSTRUCTION OF 10 CLASSROOMS, MEDIUM
ADMINISTRATION BLOCK, NEW 16 SEATER ENVIROLOO TOILETS, STEEL
PALISADE FENCE AND EXTERNAL WORKS AT MOKHARI SECONDARY SCHOOL IN
NABOOMSPRUIT, WATERBERG DISTRICT



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

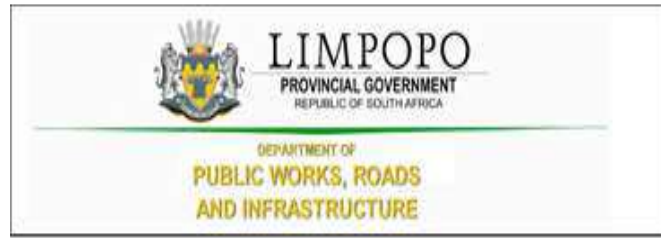
SITE INFORMATION

BID NUMBER: LDPWRI-B/20290

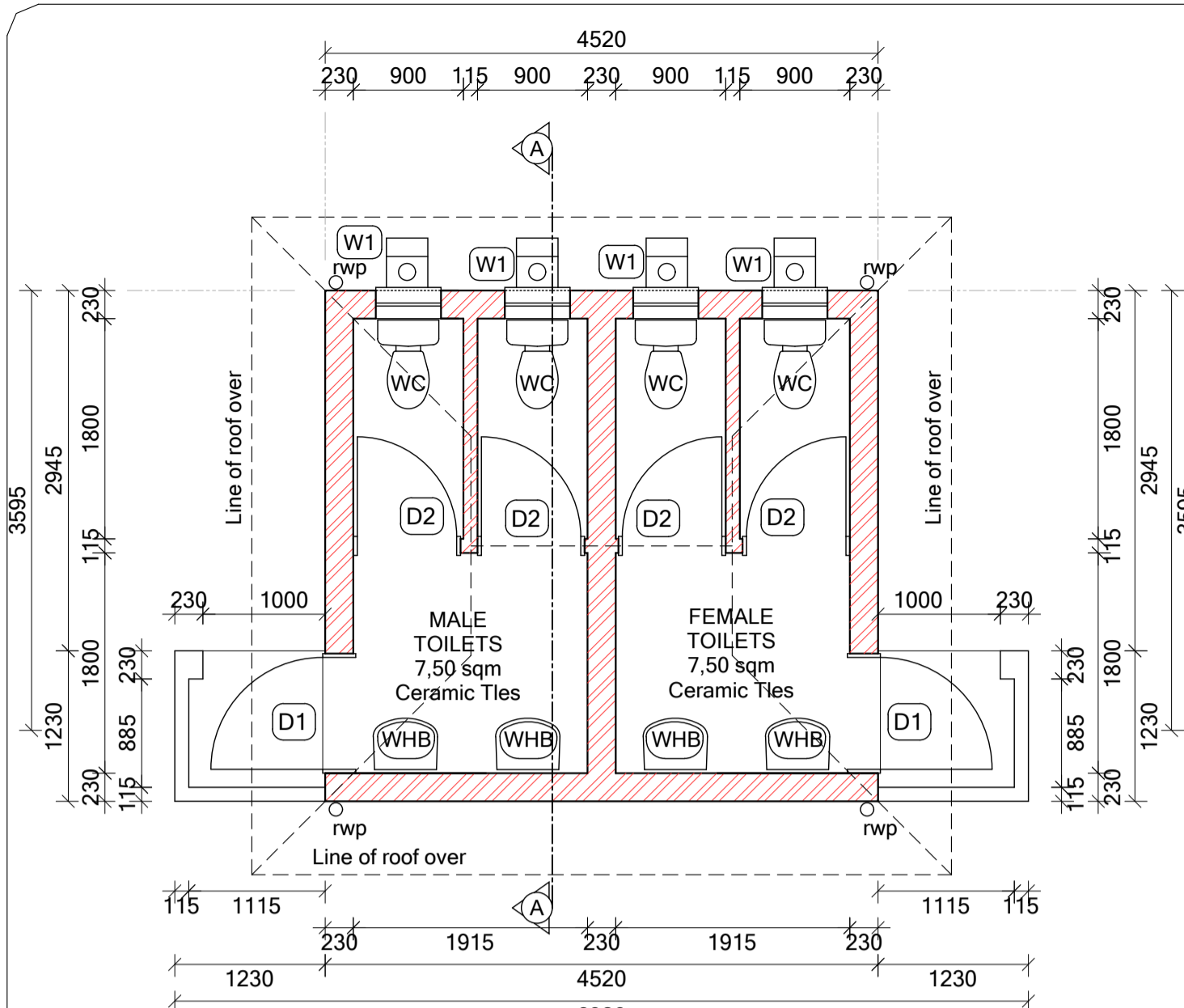
REFURBISHMENT AND ADDITIONS AT MOKHARI SECONDARY SCHOOL IN NABOOMSPRUIT,
WATERBERG DISTRICT, LIMPOPO PROVINCE.

CO-ORDINDATES

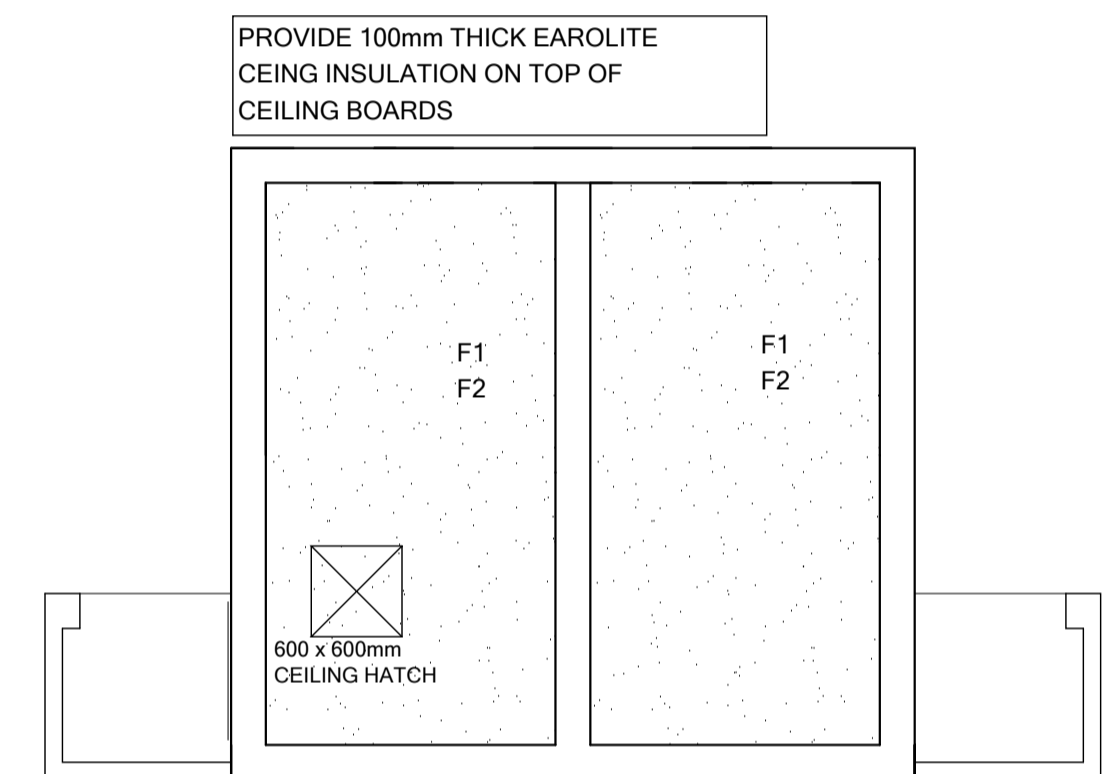
24°31'22.41" S 28°43'49.01' E



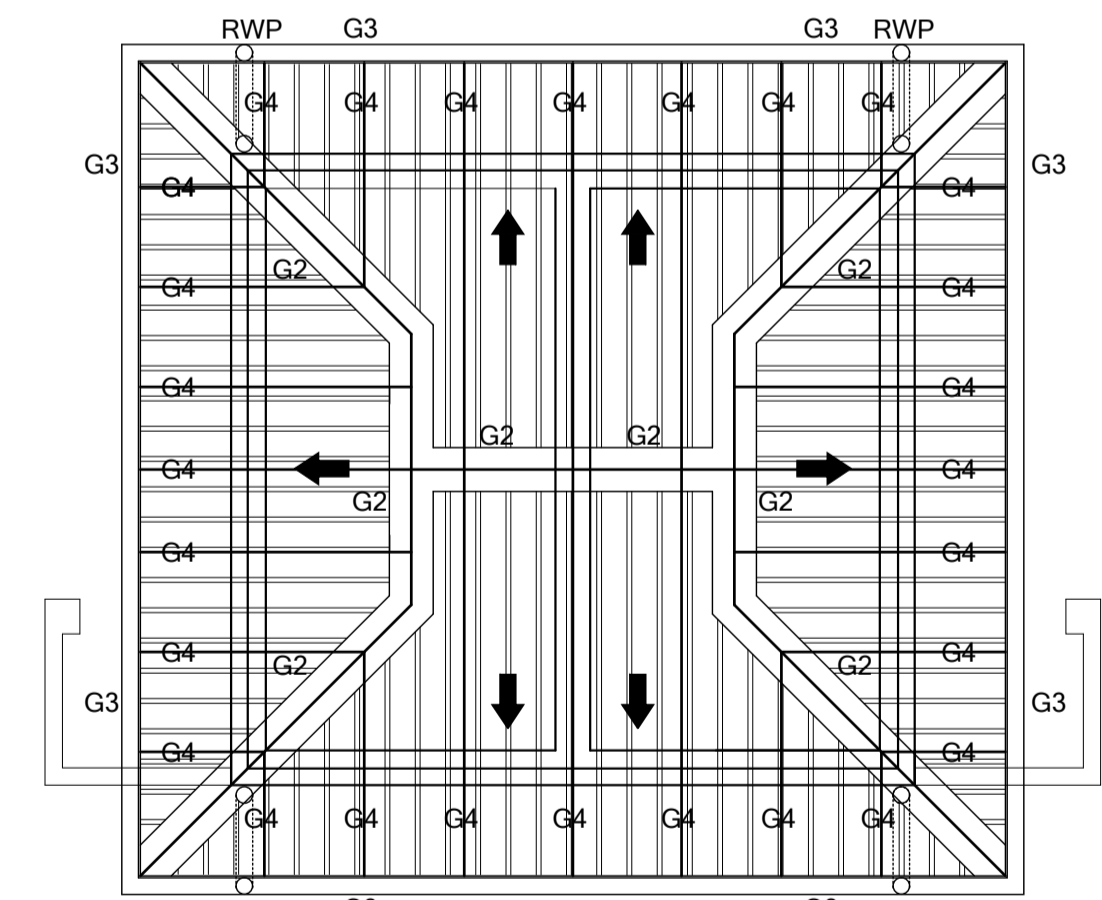
C4.1 DRAWINGS



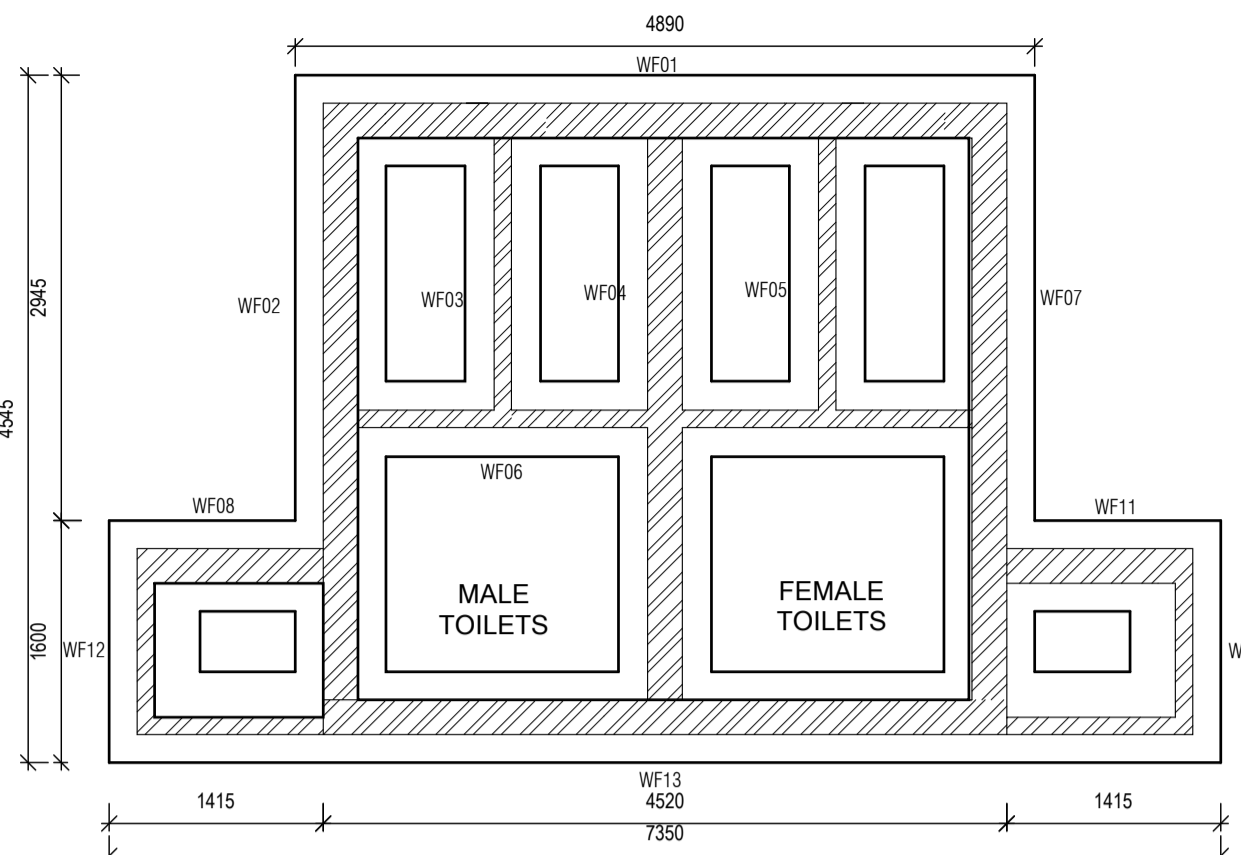
FLOOR PLAN
SCALE 1 : 50



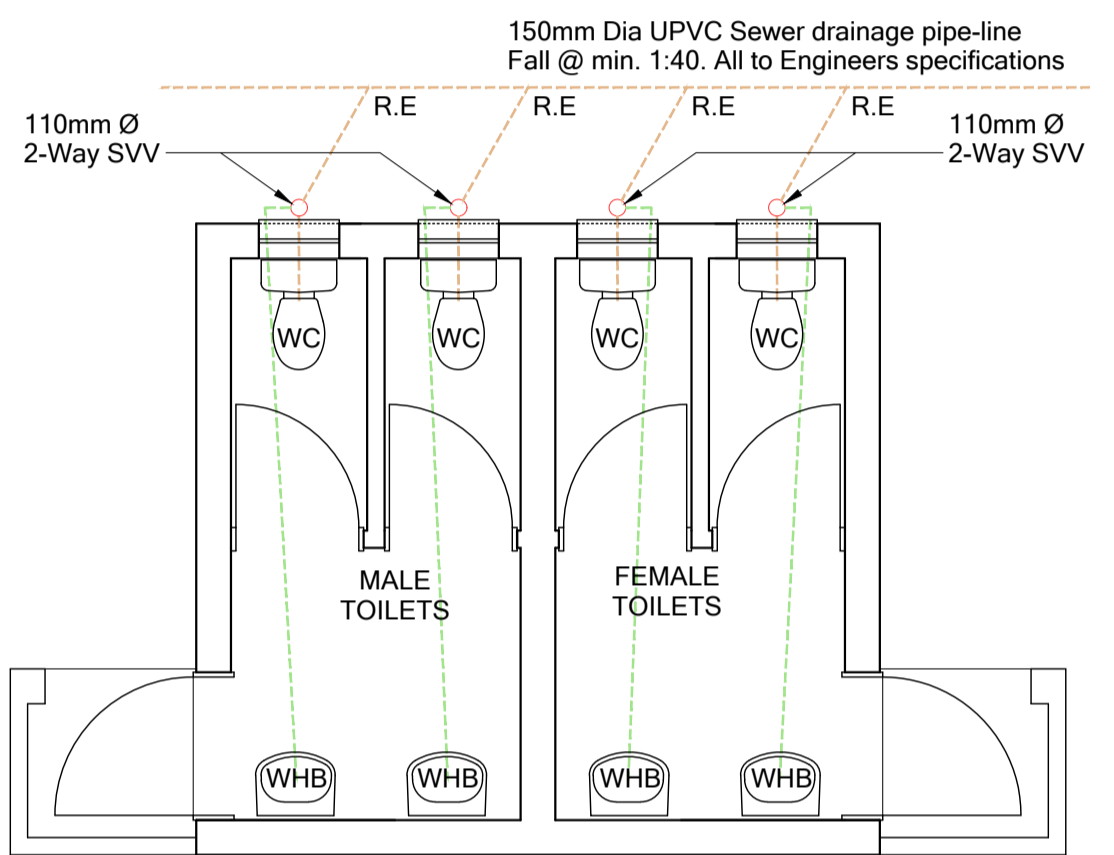
CEILING PLAN
SCALE 1 : 50



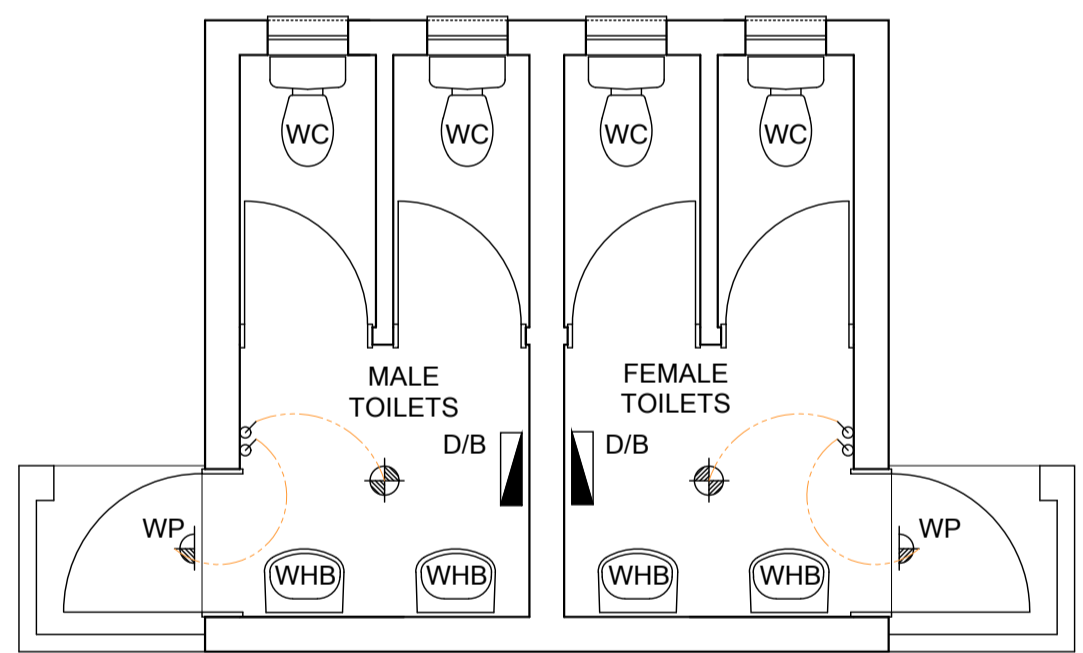
ROOF PLAN
SCALE 1 : 50



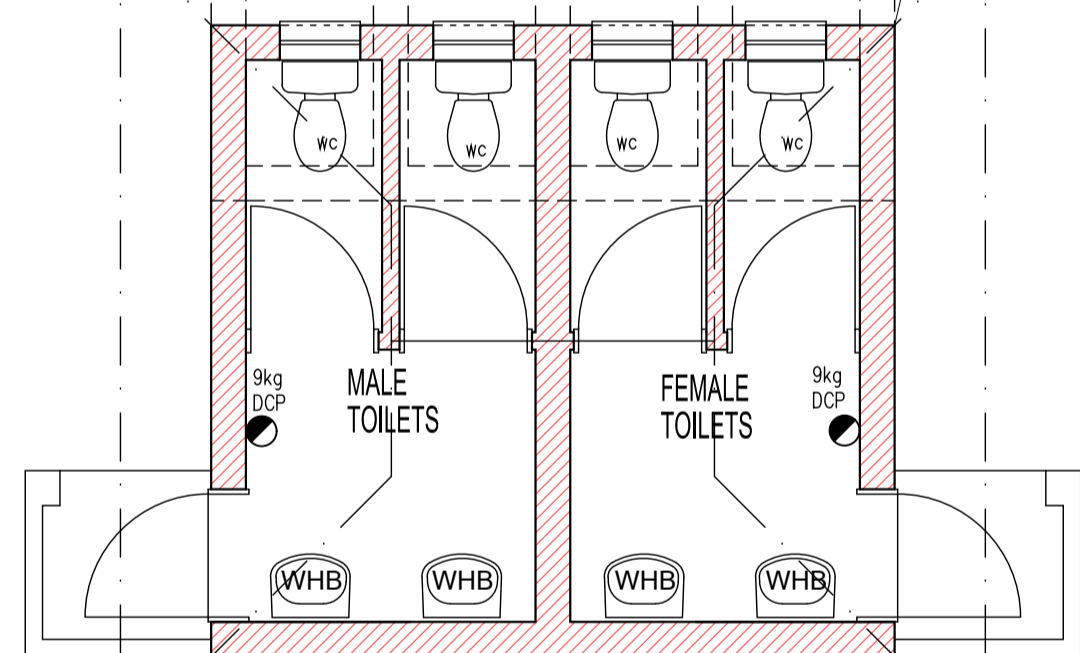
FOUNDATION LAYOUT
SCALE 1 : 50



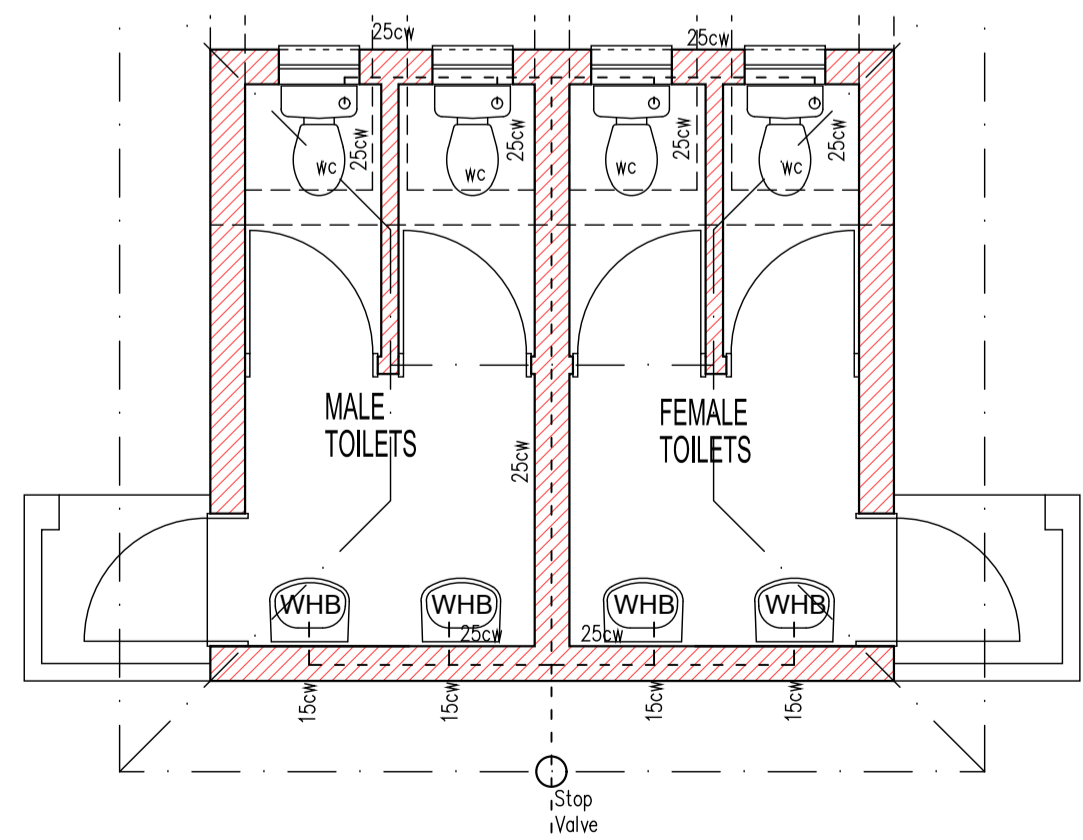
SEWER LAYOUT
SCALE 1 : 100



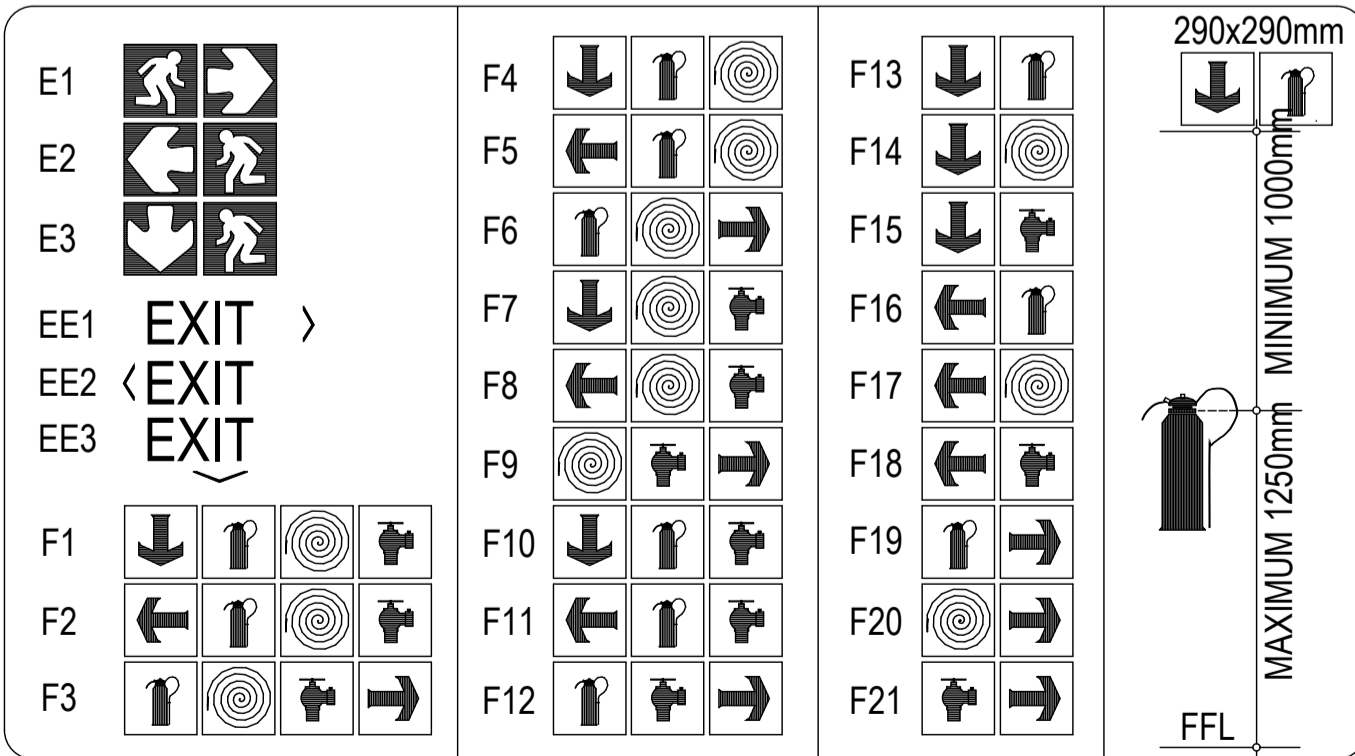
ELECTRICAL LAYOUT
SCALE 1 : 100



FIRE LAYOUT
SCALE 1 : 100



WATER LAYOUT
SCALE 1 : 100



NOTE:
FOUNDATION PLAN & DETAILS - WHERE APPLICABLE REFER TO ENGINEERS DRAWINGS & DETAIL FOR REINFORCED CONCRETE FOUNDATIONS.

ELECTRICAL LEGEND	
☐	CEILING LIGHT FITTING
☐	15 AMP DOUBLE PLUG BUILT IN 340mm ABOVE FFL
☐	15 AMP DOUBLE PLUG POINT BUILT IN 1000mm ABOVE FFL
☐	DECORATIVE WALL MOUNTED LIGHT FITTING
☐	DECORATIVE WATERPROOF EXTERNAL WALL MOUNTED LIGHT FITTING
☐	TELEPHONE POINT
☐	12 AMP ISOLATOR FOR AC UNIT MOUNTED 150mm BELOW CEILING
☐	40 AMP ISOLATOR FOR AC UNIT MOUNTED 500mm BELOW ROOF'S EAVE
☐	DISTRIBUTION BOARD & PIPE PASSEY METERBOX
☐	LIGHT SWITCH

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 anti-pollution 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 (imposed 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 for 150mm compacted filling. Filling under floors to be treated with anti-pollution 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).
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.
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 quadrant bead plated on. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascan Woodcare Stain (W-range)(colour meranti), apply one coat Plascan Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascan 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. Brickwork - Brickwork 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 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 "Plascan Aqualolv Degreaser (GR1)", remove rust with "Plascan Rust Remover (RR1)", prime with Plascan Metal Primer (UC501) and apply two coats Plascan Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.
D4. Lintel - Corobrik brick-on-edge face brick lintel 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 Plascan Plaster Primer (UC56) and two coats Plascan Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent.
D7. Internal walls - stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascan Plaster Primer (UC56) and two coats Plascan 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 Plascan Multi-surface Primer (WUP1) and apply two coats Plascan Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.
E2. External window sills - Middewit 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 Plascan Woodcare Stain (W-range)(colour meranti), apply one coat Plascan Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascan Woodcare Ultra (X44) suede varnish to cornices.
F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brundering 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 Plascan Multi-surface Primer (WUP1) and finish off with two coats Plascan 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 Plascan Multi-surface Primer (WUP1) and finish off with two coats Plascan 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. Trusses manufactured 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 Plascan Knot Seal (PK2), prime with one coat Plascan Wood Primer (UC2) and apply two coats Plascan Enamel Door & 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 Gembok 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 Gembok Sand). All holdbrats, brackets, etc. to be pre-coated to match colour of downpipes.
G7. Barge flashing over barge boards at louvers - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green).
G8. Flashings at bottom of louvers - 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 Plascan Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZH1) then apply two finishing coats Plascan 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 Plascan Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascan Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-ED2/SAS aluminium fire extinguisher sign and Union AL5066-ED3/SAS aluminium red down arrow sign above fire extinguisher.
I2. Safety fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign and 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 Plascan Aqualolv Degreaser (GR1), remove any rust with Plascan Rust Remover (RR1), prime with Plascan Metal Primer (UC501) and apply two coats Plascan Enamel Door & Trims (G-range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-ED2/SAS aluminium fire sign & Union AL5066-ED3/SAS aluminium red down arrow sign above fire hose reel.

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 800 mm Built in Balustrade.
- Gully positions to be determined as per site prescribed overall drainage design.
- 2 x coats sealant on all exposed trusses (sand off all SABS & other markings).
- 50mm 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.
- West Facing Fascides to have standardised aluminium louvers from below eaves to drop of 1200 mm.
- 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

DISCIPLINE PROJECT STAGE
ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION
4 CUBICLE WATERBORNE ABLUTION BLOCK

DRAWING DESCRIPTION
FLOOR, ELECTRICAL, SEWER PLAN

FILE NO.	ITEM NO.
DESIGN	DRAWN
SCALE 1:100	CHECKED

DATE	RESPONSIBLE PROFESSIONAL NAME	SIGNATURE	PR NUMBER
2023.06.20	Y.VAHED		7812

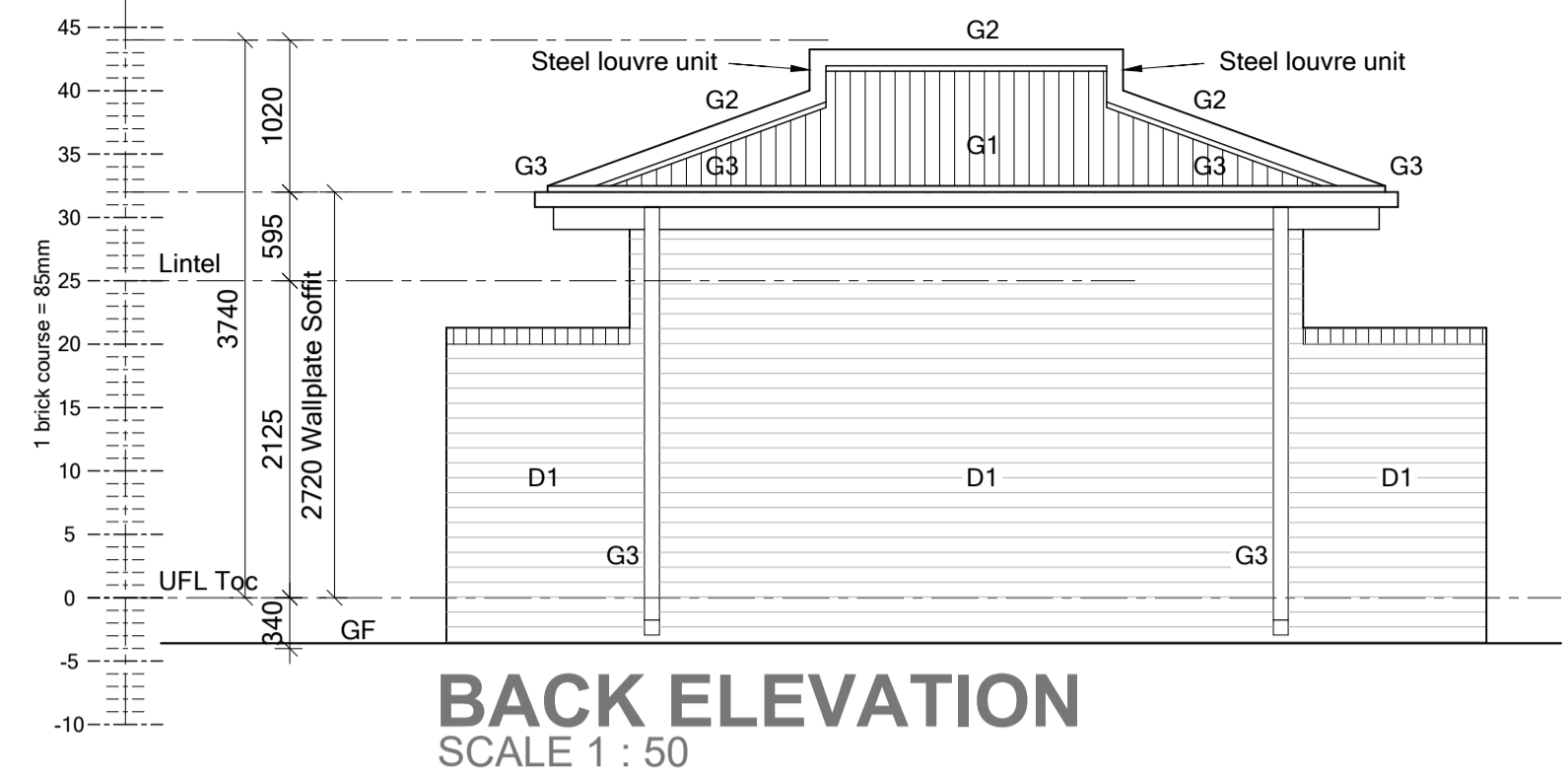
DRAWING CO-ORDINATED

CONSULTANT :
ruben reddy architects
Suite 4 No. 6 Jembu Office Building
6 Jembu Street, Polokwane, 0959 South Africa
Tel: +27 11 053 0345, Fax: +27 11 470 8364,
Email: info@rubenreddyarch.co.za
www.rubenreddyarch.co.za

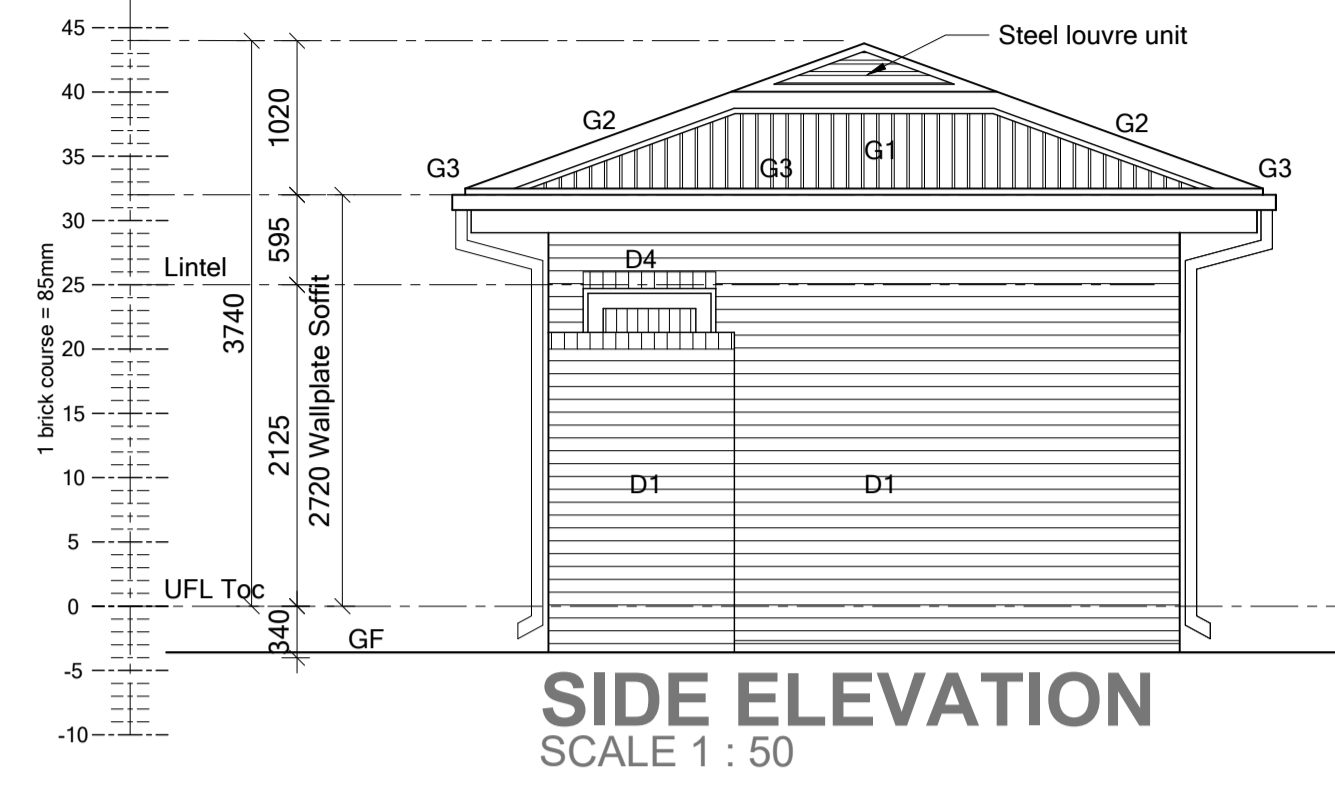
CONTRACTOR :

CAAD SYSTEM	AUTO CAD	FILE NAME
SIZE	DRAWING NUMBER	REV

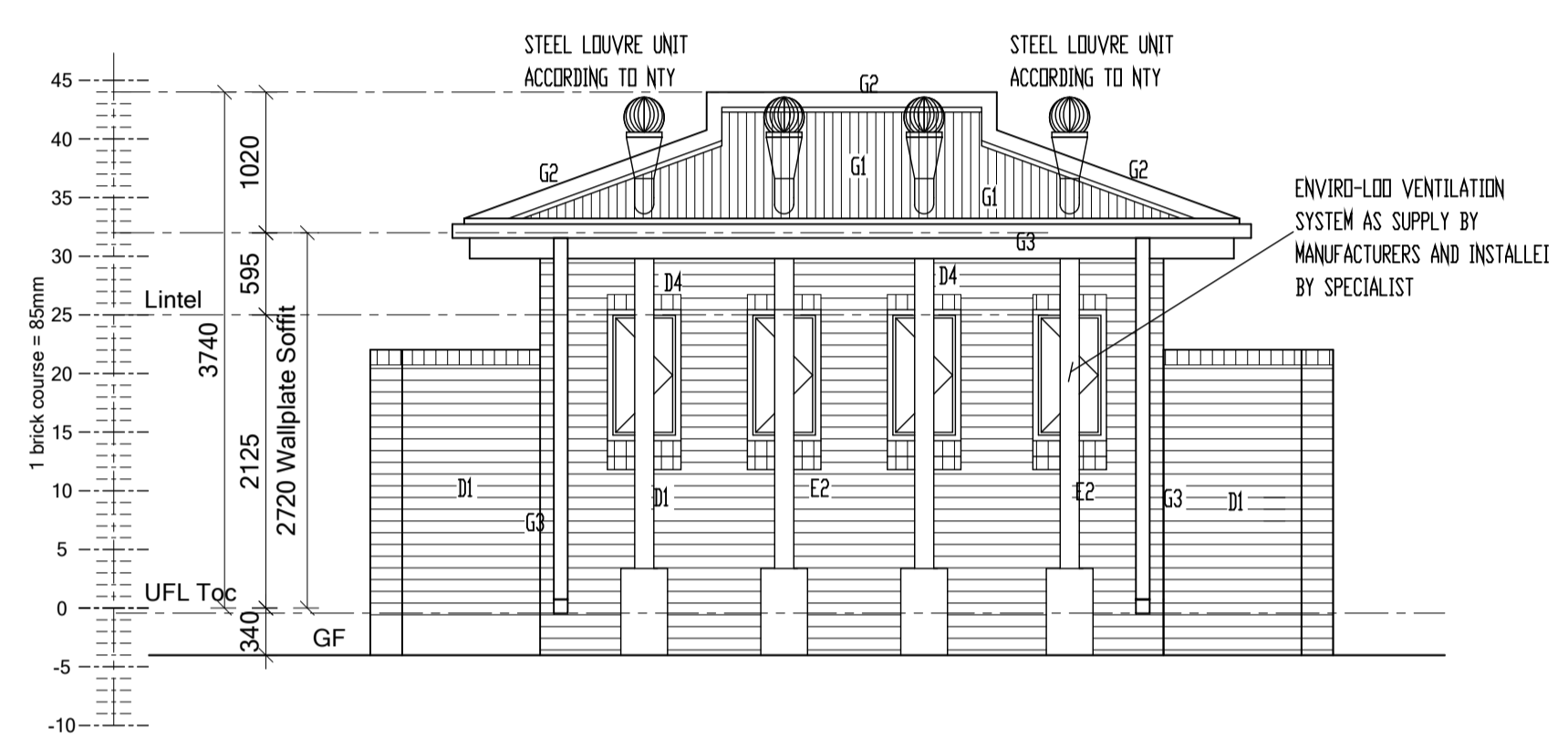
A 1 2020_67-4WAB - 100 A



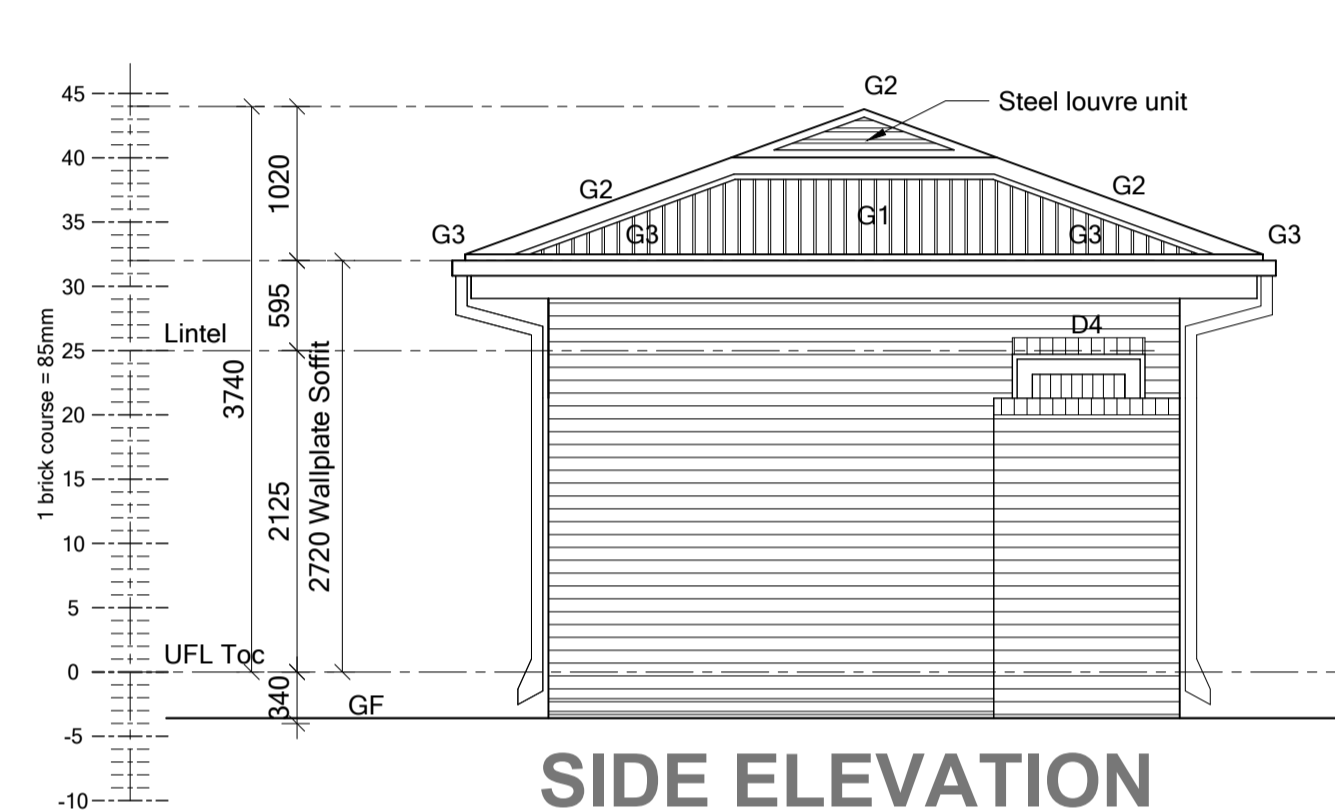
BACK ELEVATION
SCALE 1 : 50



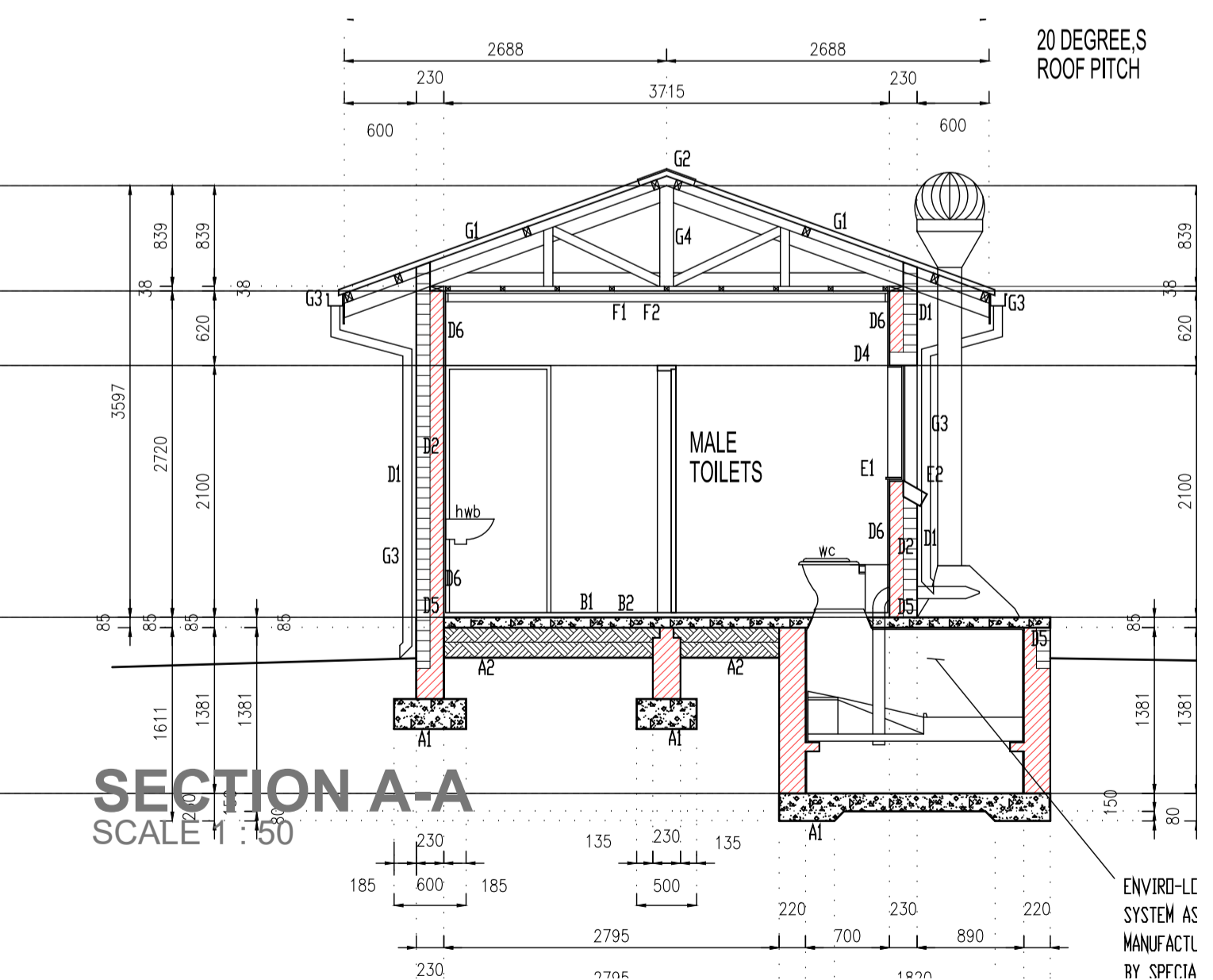
SIDE ELEVATION
SCALE 1 : 50



FRONT ELEVATION
SCALE 1 : 50



SIDE ELEVATION
SCALE 1 : 50



SECTION A-A
SCALE 1 : 50

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 15m² 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 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 15m² 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 15m² 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 quadrant 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. Brickwork - Brickwork 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 Aqualolv 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.
D4. Lintel - Corobrik brick-on-edge face brick lintel 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.
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 nute-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 Ultra (X44) suede varnish to cornices.
F2. Ceilings - 6mm Everite Nute-cement fibre-cement boards nailed to 38 x 38mm SAP bracing at 400mm centres maximum with galvanised cold 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 bender 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 Nute-cement fibre-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Barge boards - 200 x 80mm Everite sockless 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 carboliteum 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 carboliteum 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 Gembok 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 Gembok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes.
G7. Barge flashing over barge boards at louvers - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green).
G8. Flashings at bottom of louvers - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green).

Fixings
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 underneath to 350mm wide Shelco epoxy powder coated steel brackets. Brackets to be fixed to 25mm wide x 134mm 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-E09ZAS aluminium fire extinguisher sign and Union AL5066-E09ZAS 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 AL5066-06ASE06 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 Aqualolv 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 (GR). Provide 150 x 150mm Union AL5066-E09ZAS aluminium fire sign & Union AL5066-E09ZAS aluminium red down arrow sign above fire hose reel.

NOTES :

- 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 Steps over 800 mm Built in Balustrade
- 4) Gully 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 ratings)
- 6) 50mm mineral wool insulation to be installed where there are ceilings
- 7) Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 8) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 9) 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

DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	4

WORK DESCRIPTION - SUB DIVISION
4 CUBICLE WATERBORNE ABLUTION BLOCK

DRAWING DESCRIPTION
SECTION AND ELEVATION

FILE No.	ITEM No.
DESIGN	DRAWN
SCALE	CHECKED

DATE	RESPONSIBLE PROFESSIONAL NAME	SIGNATURE	PR NUMBER
2023.06.20	Y.VAHED		7812

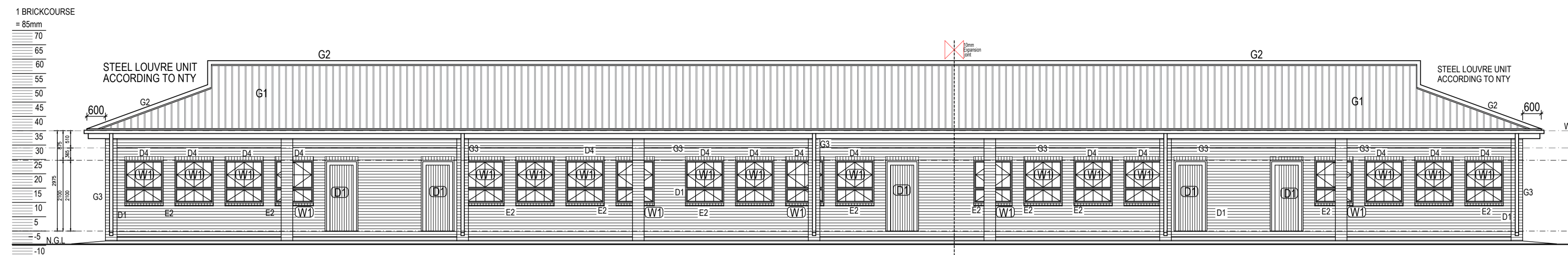
DRAWING CO-ORDINATED

CONSULTANT

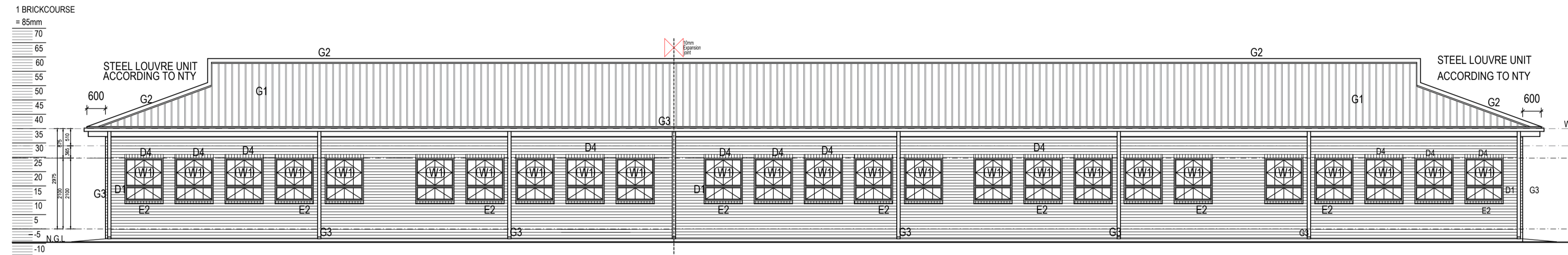
 Suite 4 No 6 Jambani Office Building
 6 Jambani Street, Rosebank, D699 South Africa
 Tel: +27 15 985 8845; Fax: +27 11 478 8364
 Email: info@rubenreddyarch.co.za
 Web: www.rubenreddyarch.co.za

CONTRACTOR

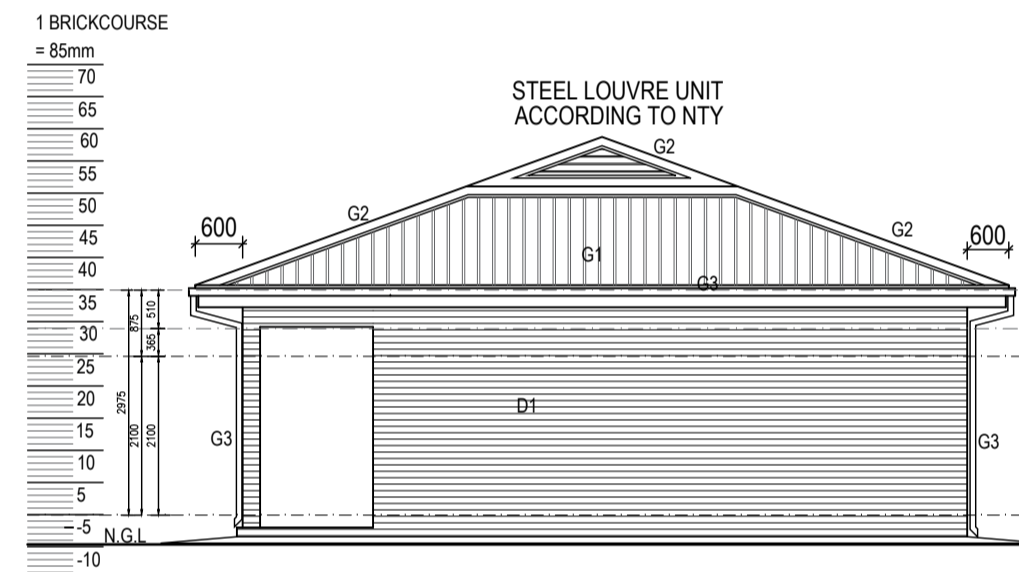
CADD SYSTEM	AUTO CADD	FILE NAME
SIZE	DRAWING NUMBER	REV



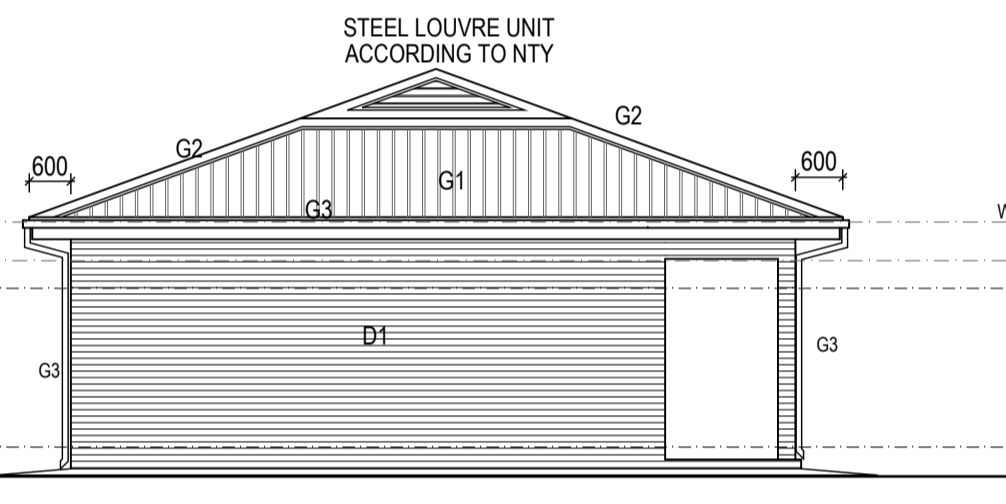
FRONT ELEVATION
SCALE 1 : 100



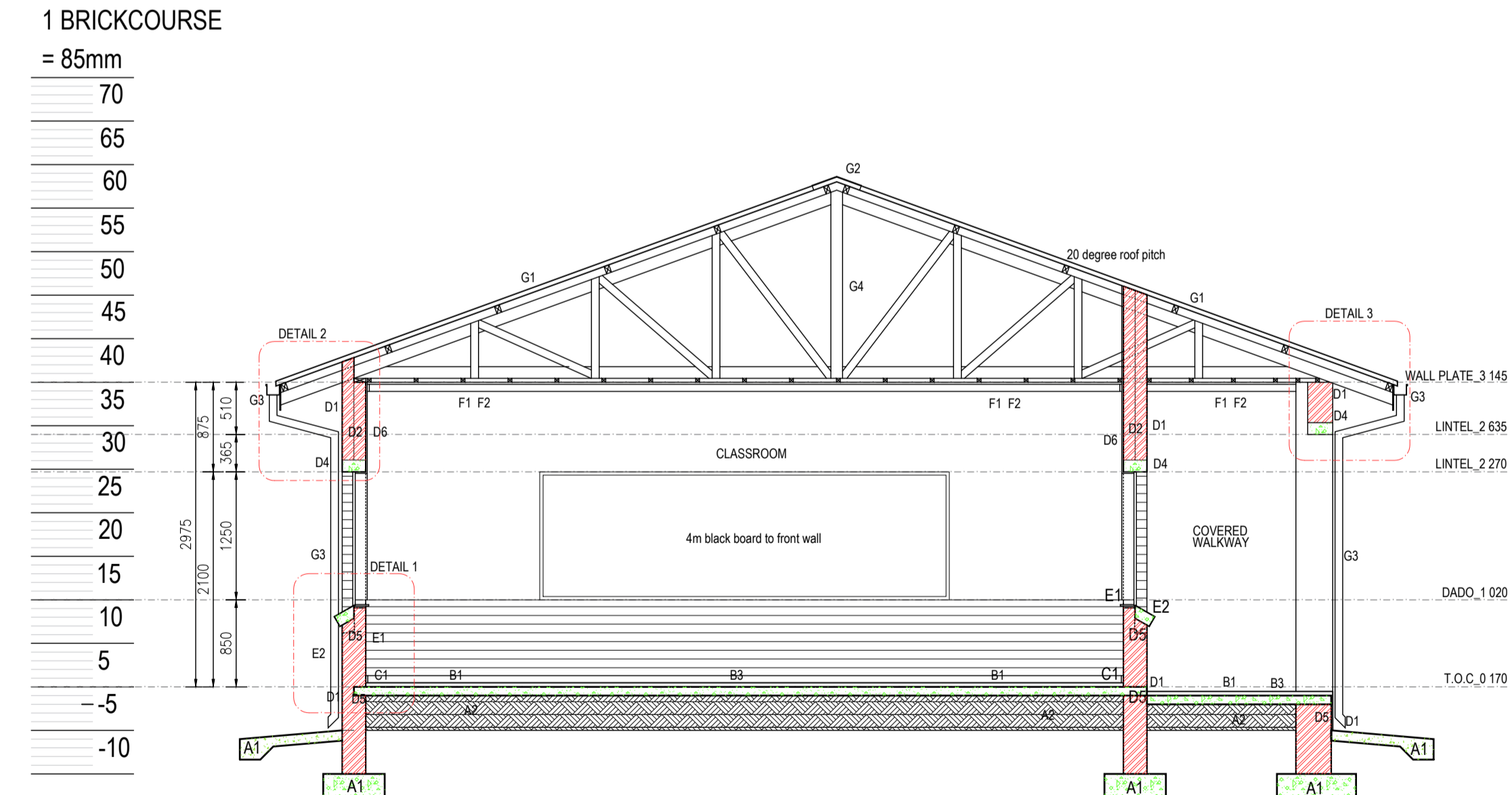
BACK ELEVATION
SCALE 1 : 100



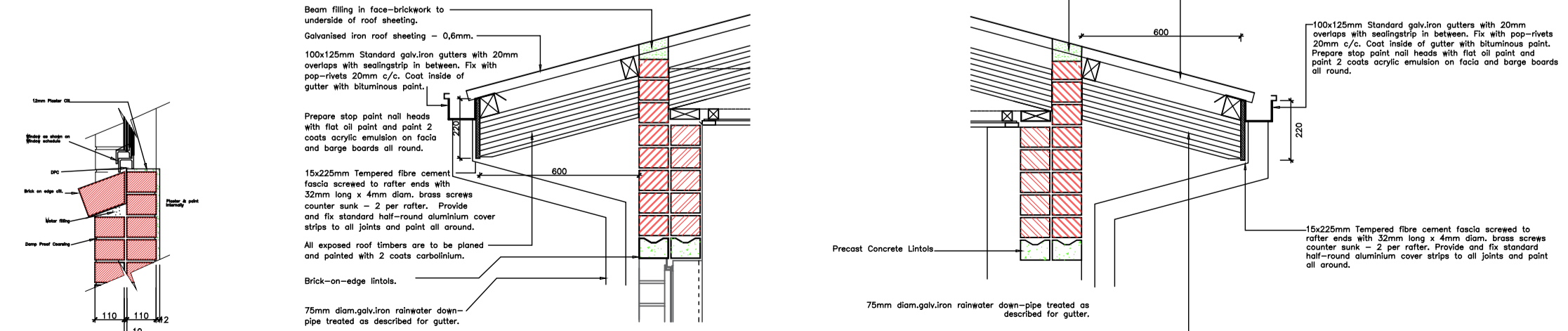
SIDE ELEVATION
SCALE 1 : 100



SIDE ELEVATION
SCALE 1 : 100



SECTION A-A
SCALE 1 : 50



DETAIL 1
SCALE 1 : 20

DETAIL 2
SCALE 1 : 20

DETAIL 3
SCALE 1 : 20

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 anti 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 anti 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)
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
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 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

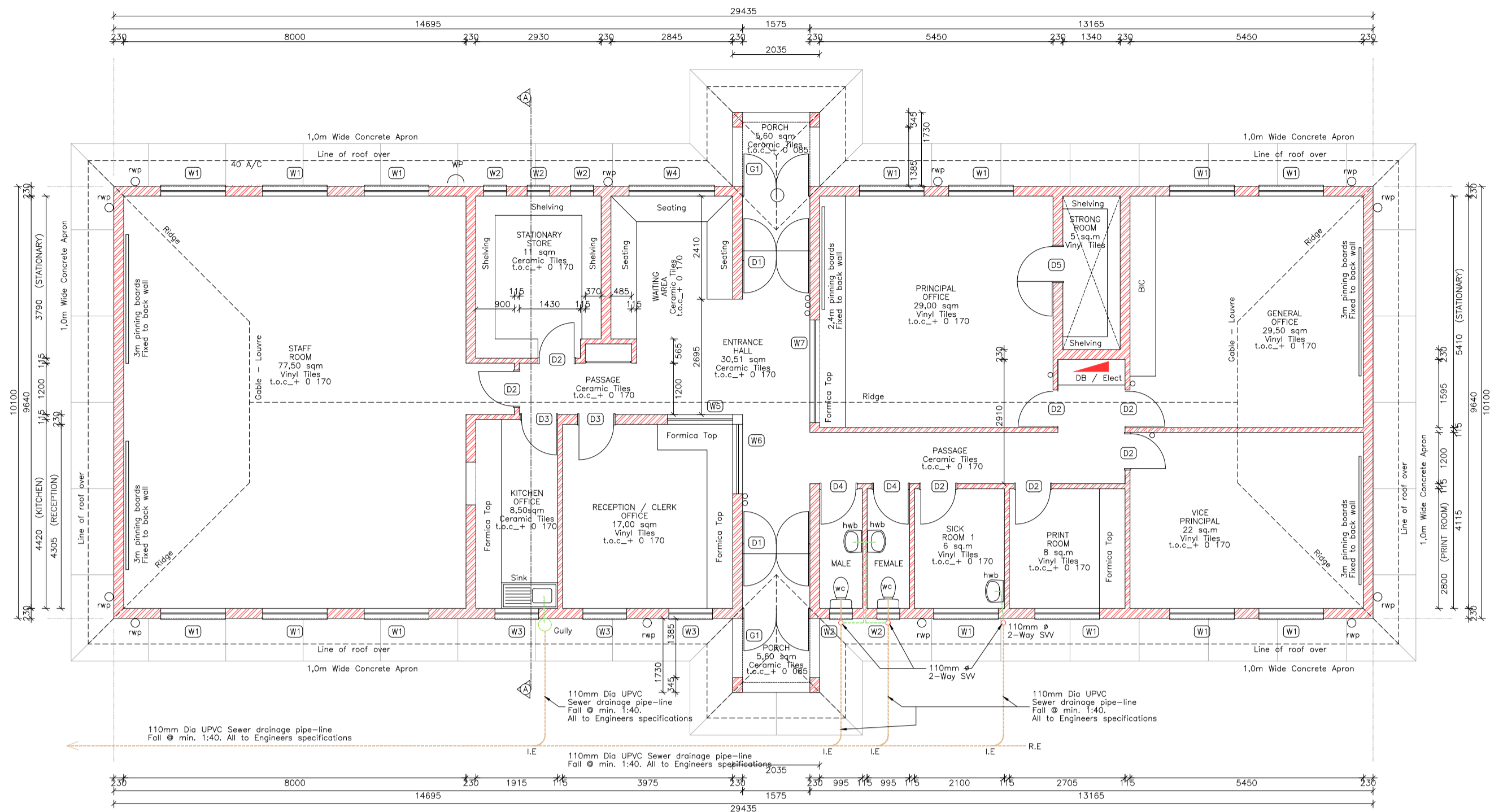
Walls and structure
D1. External walls - Corobrik face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints
D2. Brickforce - Brickforce to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below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

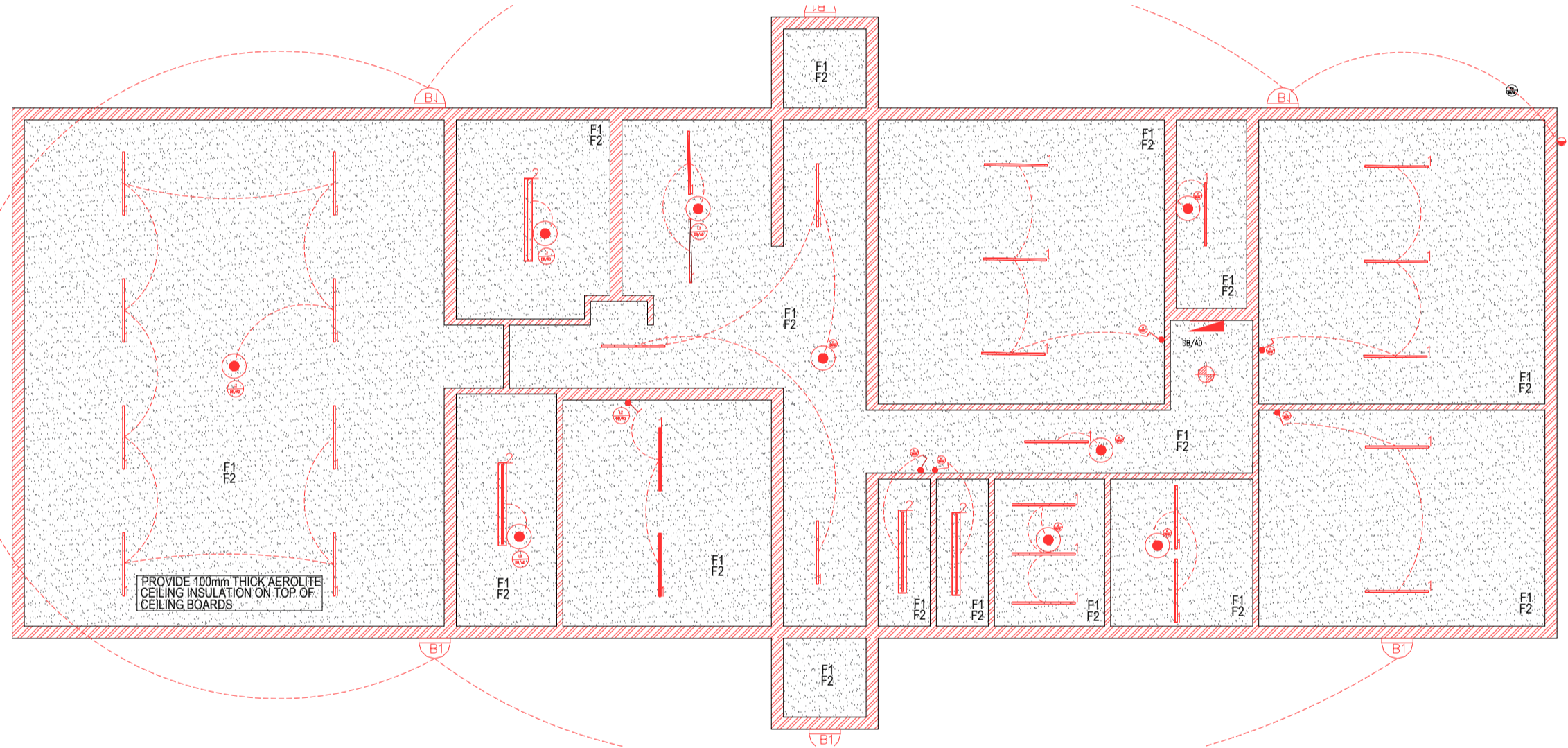
Ceilings and cornices
F1. Internal cornice - 19 x 76mm Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish, stop with Polycell Woodfiller, stain with Plascon Woodcare Stain (W-range)(colour meranti), apply one coat Plascon Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to cornices
F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to walls at 38 x 38mm SAP branding at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-primed. 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 carbolium 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 carbolium 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 louvers - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green)
G8. Flashings at bottom of louvers - 0.8mm galvanised sheet iron standard factory manufactured FK8 headwall flashing and FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

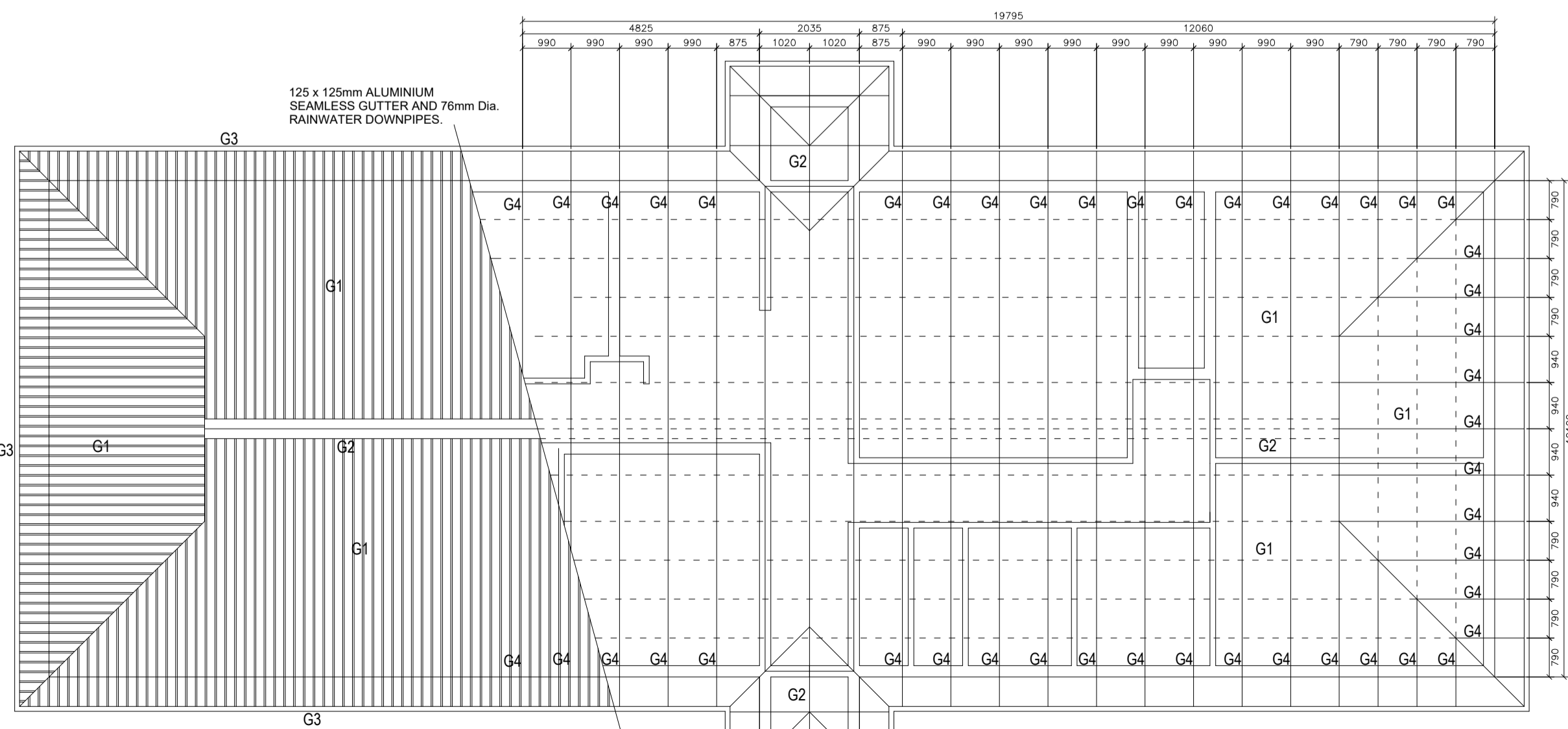
Fittings
H1. Vitrex Model 2400 (code 2404) enameled green folding type writing board with wall mounted centre board 2000 x 1200mm high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail
H2. Vitrex System 2000 (code 2317) 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 Sheico 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
H5. 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) and 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
H6. 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 Sheico 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
H7. 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
H8. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H9. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H10. 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 Sheico 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
H11. 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
H12. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H13. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H14. 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 Sheico 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
H15. 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) and 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
H16. 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 Sheico 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
H17. 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
H18. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H19. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H20. 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 Sheico 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
H21. 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) and 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
H22. 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 Sheico 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
H23. 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
H24. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H25. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H26. 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 Sheico 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
H27. 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) and 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
H28. 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 Sheico 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
H29. 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
H30. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H31. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H32. 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 Sheico 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
H33. 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) and 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
H34. 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 Sheico 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
H35. 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
H36. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H37. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H38. 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 Sheico 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
H39. 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) and 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
H40. 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 Sheico 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
H41. 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
H42. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H43. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H44. 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 Sheico 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
H45. 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) and 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
H46. 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 Sheico 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
H47. 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
H48. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H49. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H50. 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 Sheico 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
H51. 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) and 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
H52. 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 Sheico 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
H53. 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
H54. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H55. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H56. 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 Sheico 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
H57. 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) and 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
H58. 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 Sheico 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
H59. 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
H60. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H61. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H62. 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 Sheico 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
H63. 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) and 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
H64. 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 Sheico 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
H65. 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
H66. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H67. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H68. 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 Sheico 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
H69. 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) and 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
H70. 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 Sheico 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
H71. 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
H72. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)
H73. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H74. 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 Sheico 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
H75. 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) and 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
H76. Five rows of 19mm Thick laminated SA



FLOOR PLAN
SCALE 1 : 100



CEILING PLAN
SCALE 1 : 100



ROOF 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 15m² or 1 per batch). Finished sides and bottoms of trenches to be treated with anti 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.
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 anti 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.
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 15m² 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 15m² 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 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 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, hole 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 Aqualsol 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. Lintel - 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
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 Ultra (X44) suede varnish to cornices
F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brading at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-primed. 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 Roof and fascias
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 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 Gembok 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 Gembok 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 Aqualsol 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 fire sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

NOTES :

- 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) Gully 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) 50mm mineral wool insulation to be installed where there are ceilings
- 7) Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 8) West Facing Facades to have standardised aluminium louvers from below south to drop of 1200 mm
- 9) 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 & PROCUREMENT

DISCIPLINE PROJECT STAGE
ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION
MEDIUM ADMINISTRATION BLOCK

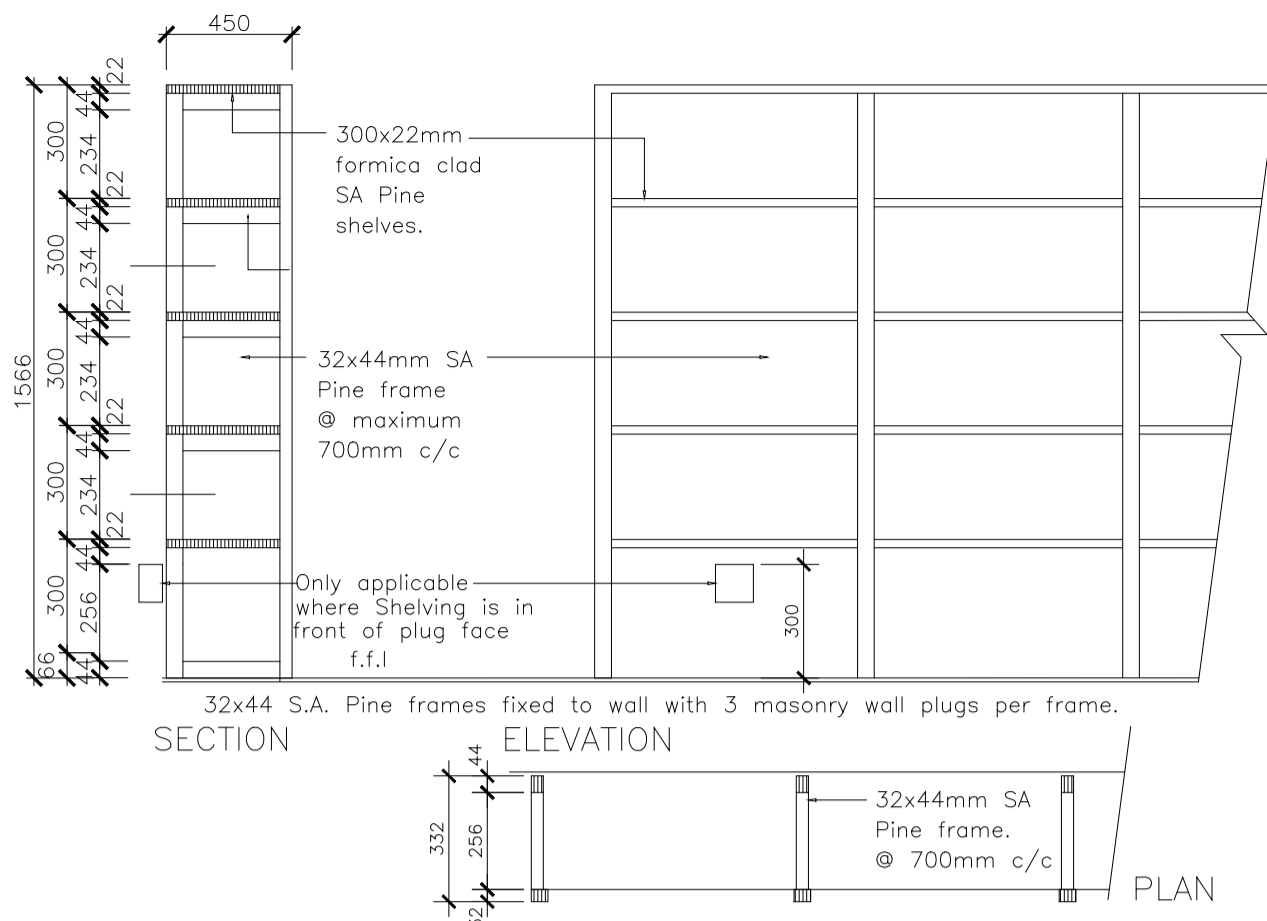
DRAWING DESCRIPTION
FLOOR, CEILING & ROOF PLAN

FILE No.	ITEM No.		
DESIGN	DRAWN		
SCALE	CHECKED		
DATE	RESPONSIBLE PROFESSIONAL NAME	SIGNATURE	PR NUMBER
2023.06.20	Y.VAHED		7812

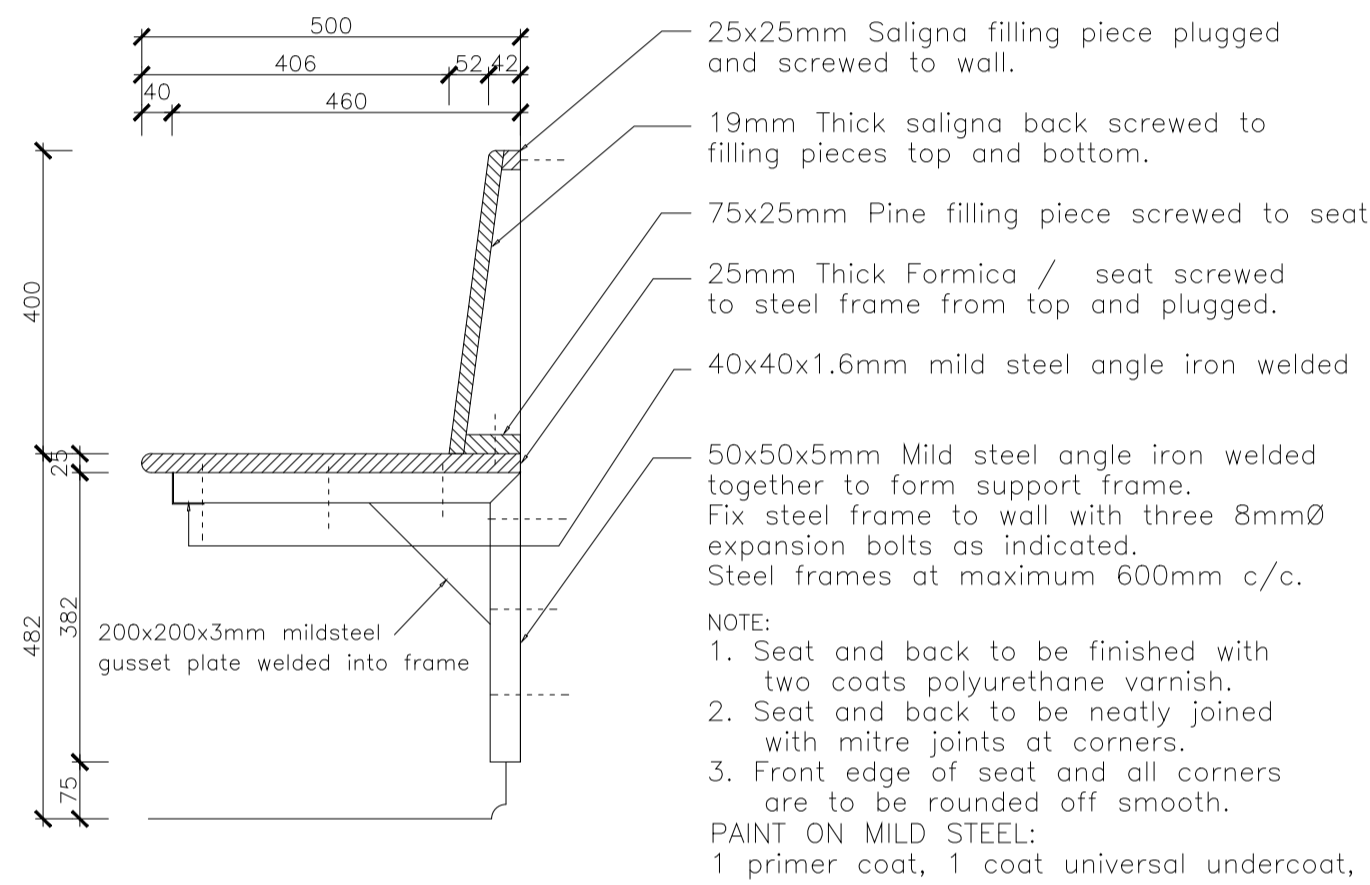
CONSULTANT :

ruben reddy architects
Suite 4 No 6 Imiti Office Building
6 Imiti Street, Polokwane, 0959 South Africa
Tel: +27 15 085 0645, Fax: +27 11 470 8364,
Email: info@rubenreddyarch.co.za
Web: www.rubenreddyarch.co.za

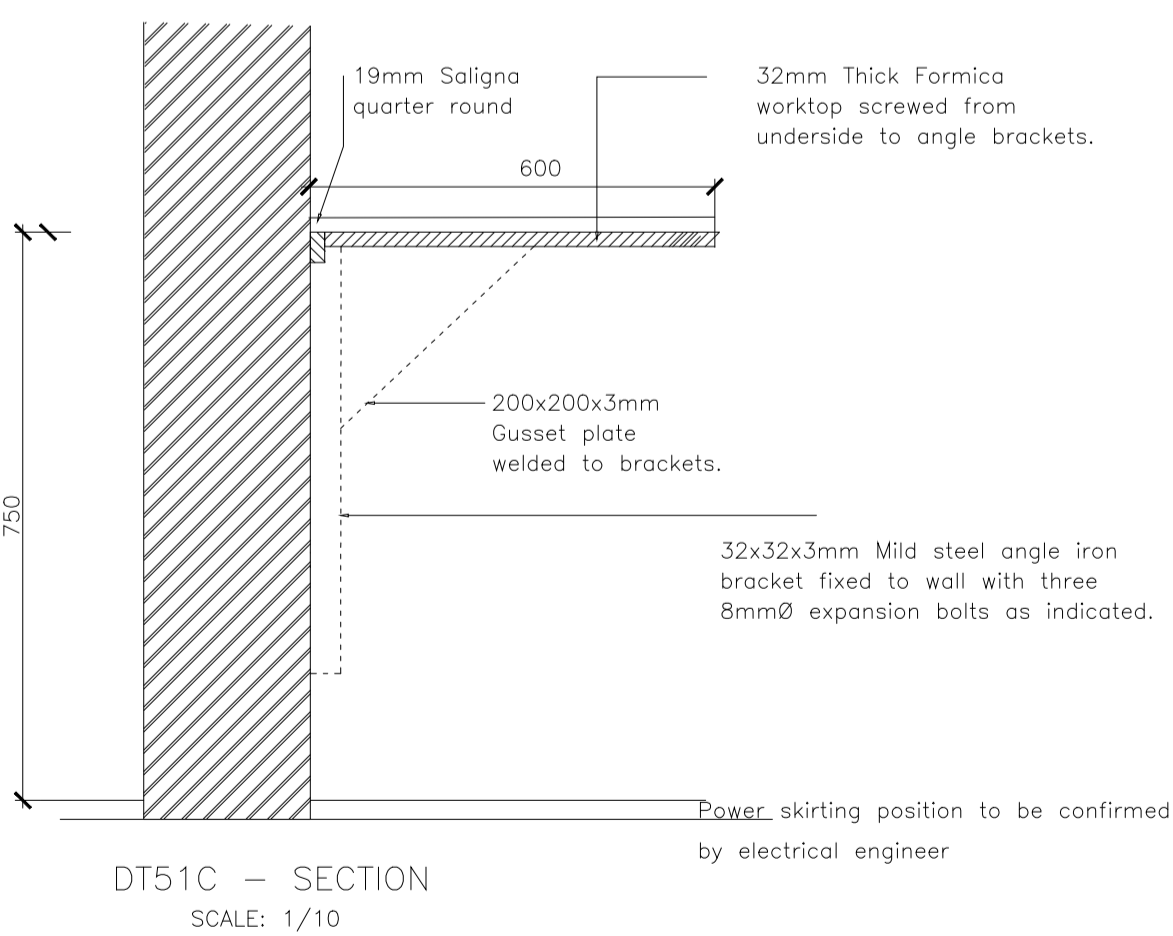
CADD SYSTEM	AUTO CAD	FILE NAME
A 1	2020_67-MAD-100	A



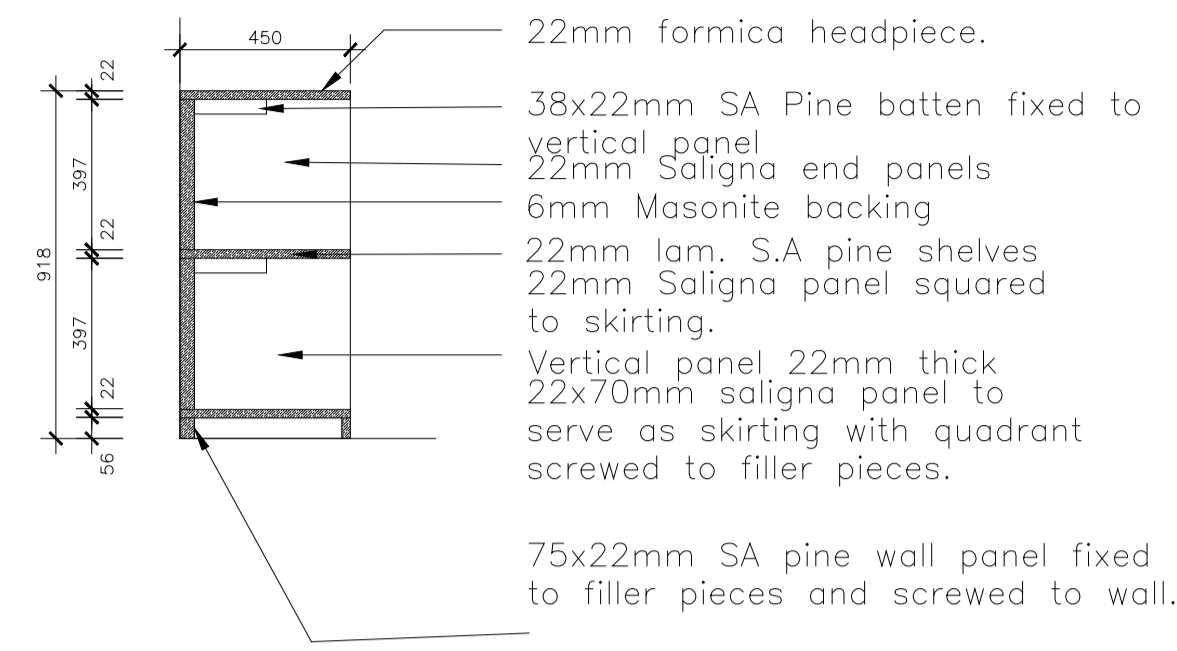
DETAIL 1a (STORE ROOM SHELVES)
Section Scale 1:20



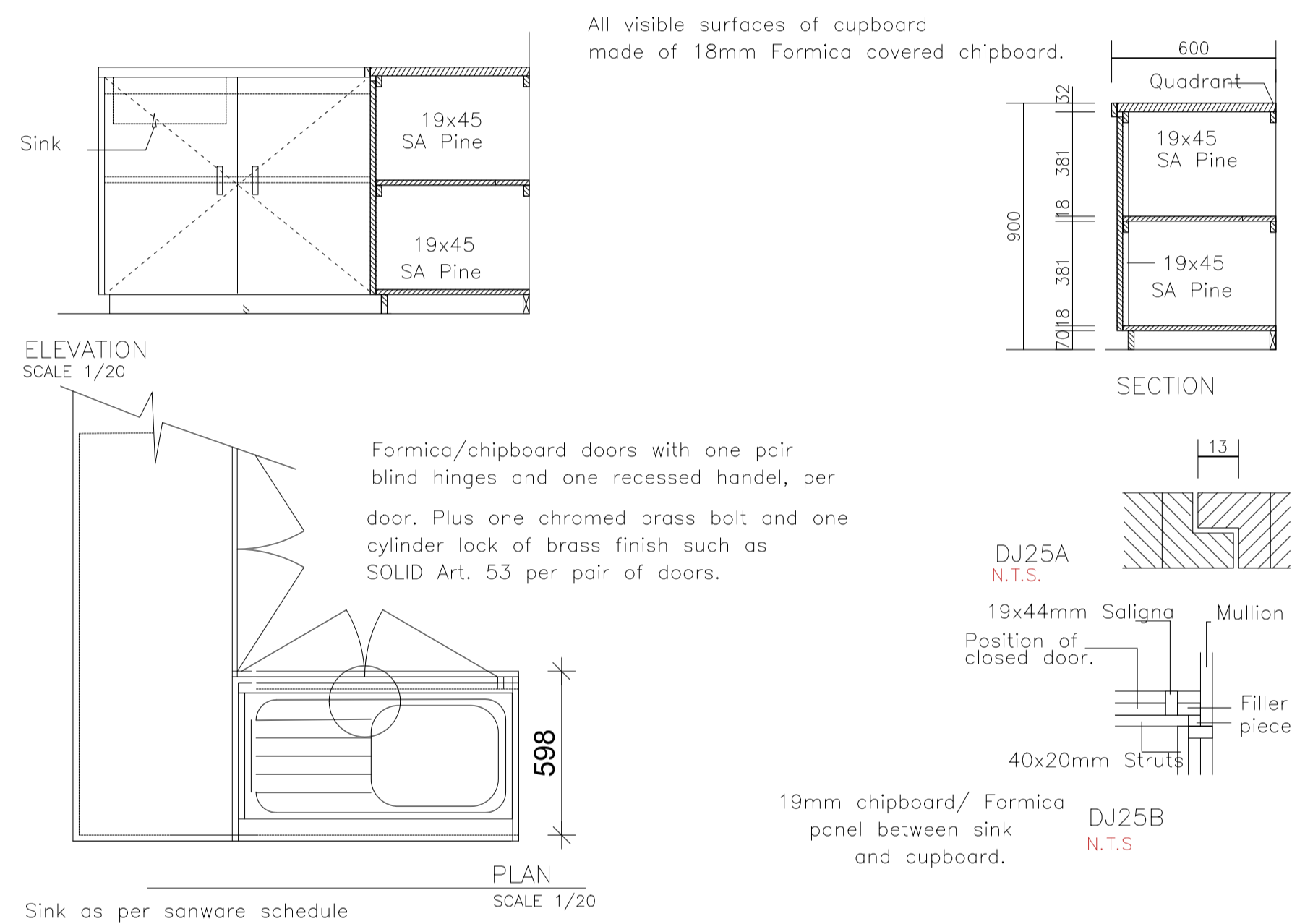
DETAIL 2 WAITING AREA seating
Section Scale 1:20



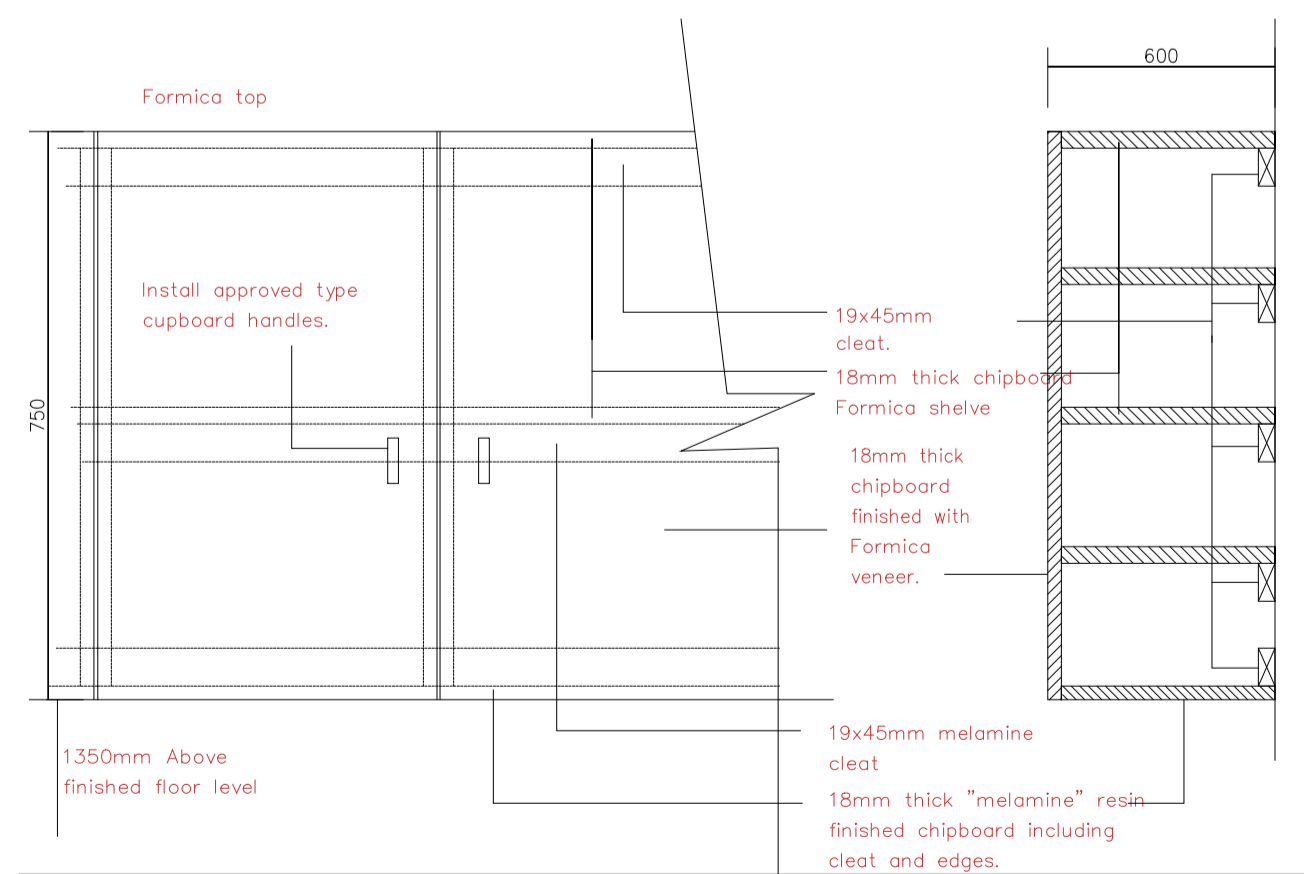
DETAIL 4 - Formica Top counters
Section Scale 1:20



DETAIL 1b (STORE ROOM SHELVES)
Section Scale 1:20



DETAIL 3 Kitchen Cupboards
Section Scale 1:20



DETAIL 6 - Office BIC
Section Scale 1:20

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 15m² 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.
B2. Surface test cubes (1 per 15m² or 1 per batch)
B3. 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 15m² or 1 per batch)
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 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, welded and 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 Aqualolv 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. Lintel - 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
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 Ultra (X44) suede varnish to cornices
F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brandlering 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 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 carbolnium 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 carbolnium 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 Gembok 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 Gembok 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-E06/2AS aluminium engraved red fire hose reel sign & Union AL5066-E08/2AS 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 Aqualolv 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 fire sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

NOTES :

- 1) Workmanship to comply with Standard Specification of materials and methods - to be used - SABS 0400
- 2) Light Switch in Disabled 'hall' to be at 1200 mm above FFL
- 3) If Step over 900 mm Build in Balustrade
- 4) Gully 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) 50mm mineral wool insulation to be installed where there are ceilings
- 7) West Facing Facades to have standardised aluminium louvers from below areas that do not have ceilings
- 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



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 4

WORK DESCRIPTION - SUB DIVISION

MEDIUM ADMINISTRATION BLOCK

DRAWING DESCRIPTION

JOINERY DETAILS

FILE No. DESIGN SCALE 1:100 RESPONSIBLE PROFESSIONAL SIGNATURE PR NUMBER

DATE 2023.06.20 NAME Y.VAHED SIGNATURE DRAWING CO-ORDINATED

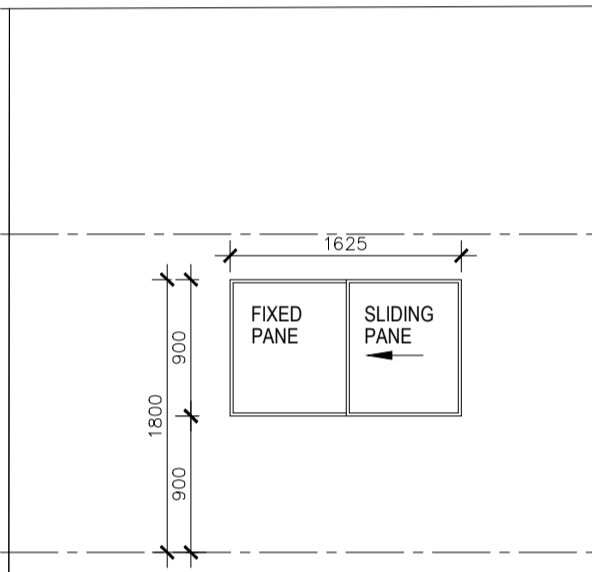
CONSULTANT

ruben reddy architects

CONTRACTOR

CADD SYSTEM	AUTO CAD	FILE NAME
SCALE	DRAWING NUMBER	REV
A 1	2020_67-MAD-103	A

NUMBER	W01	NUMBER	W02	NUMBER	W03	NUMBER	W04	NUMBER	W05	NUMBER	W06
TYPE		TYPE		TYPE		TYPE		TYPE	N/A	TYPE	N/A
AREA		AREA		AREA		AREA		AREA	ADMINISTRATION RECEPTION	AREA	ADMINISTRATION RECEPTION
WINDOW	Standard horizontal pivot type steel school window type 58, 1511mm x 1168mm high	WINDOW	Standard horizontal pivot type steel school window type 58, 533mm x 900mm high	WINDOW	Standard horizontal pivot type steel school window type 58, 1022mm x 900mm high	WINDOW	Standard horizontal pivot type steel school window type 58, 2000mm x 1168mm high	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	GLASS	6.3mm Safety glass	GLASS	6.3mm Safety glass	GLASS	6.3mm Safety glass	GLASS	6.3mm Safety glass
FITTINGS	STANDARD BRASS FITTINGS	FITTINGS	STANDARD BRASS FITTINGS	FITTINGS	STANDARD BRASS FITTINGS	FITTINGS	STANDARD BRASS FITTINGS	FITTINGS	SLIDING BOLT TO LOCK FROM INSIDE	FITTINGS	SLIDING BOLT TO LOCK FROM INSIDE
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	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	BURGLAR BARS	N/A	BURGLAR BARS	N/A
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)	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)	FINISH	NATURAL ANODIZED	FINISH	NATURAL ANODIZED
NOTES	HEAVY STEEL SECTION	NOTES	HEAVY STEEL SECTION	NOTES	HEAVY STEEL SECTION	NOTES	HEAVY STEEL SECTION	NOTES		NOTES	



NUMBER	W06
TYPE	N/A
AREA	ADMINISTRATION RECEPTION
WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH
GLASS	6.3mm Safety glass
FITTINGS	SLIDING BOLT TO LOCK FROM INSIDE
BURGLAR BARS	N/A
FINISH	NATURAL ANODIZED
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 15m² or 1 per batch). Finished sides and bottoms of trenches to be treated with anti 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 anti 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 15m² 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 15m² 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 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 Aqualolv 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. Lintel - 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
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 Ultra (X44) suede varnish to cornices
F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP brading 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 Roof and fascias

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 stool 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 exposed mild steel. Degrease exposed parts of pipes with Plascon Aqualolv 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 fire sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

NOTES :

- 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400
- 2) Light Switch in Disabled 'cell' to be at 1200 mm above FFL
- 3) If Step over 900 mm Build in Balustrade
- 4) Gully 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) 50mm mineral wool insulation to be installed where there are ceilings
- 7) Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 8) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 9) 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 & PROCUREMENT	
DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	4
WORK DESCRIPTION - SUB DIVISION	
MEDIUM ADMINISTRATION BLOCK	
DRAWING DESCRIPTION	
WINDOW SCHEDULE	

FILE No.	ITEM No.
DESIGN	DRAWN
SCALE	CHECKED
1:100	

DATE	RESPONSIBLE	PROFESSIONAL SIGNATURE	PR NUMBER
2023.06.20	Y.VAHED		7812

DRAWING CO-ORDINATED

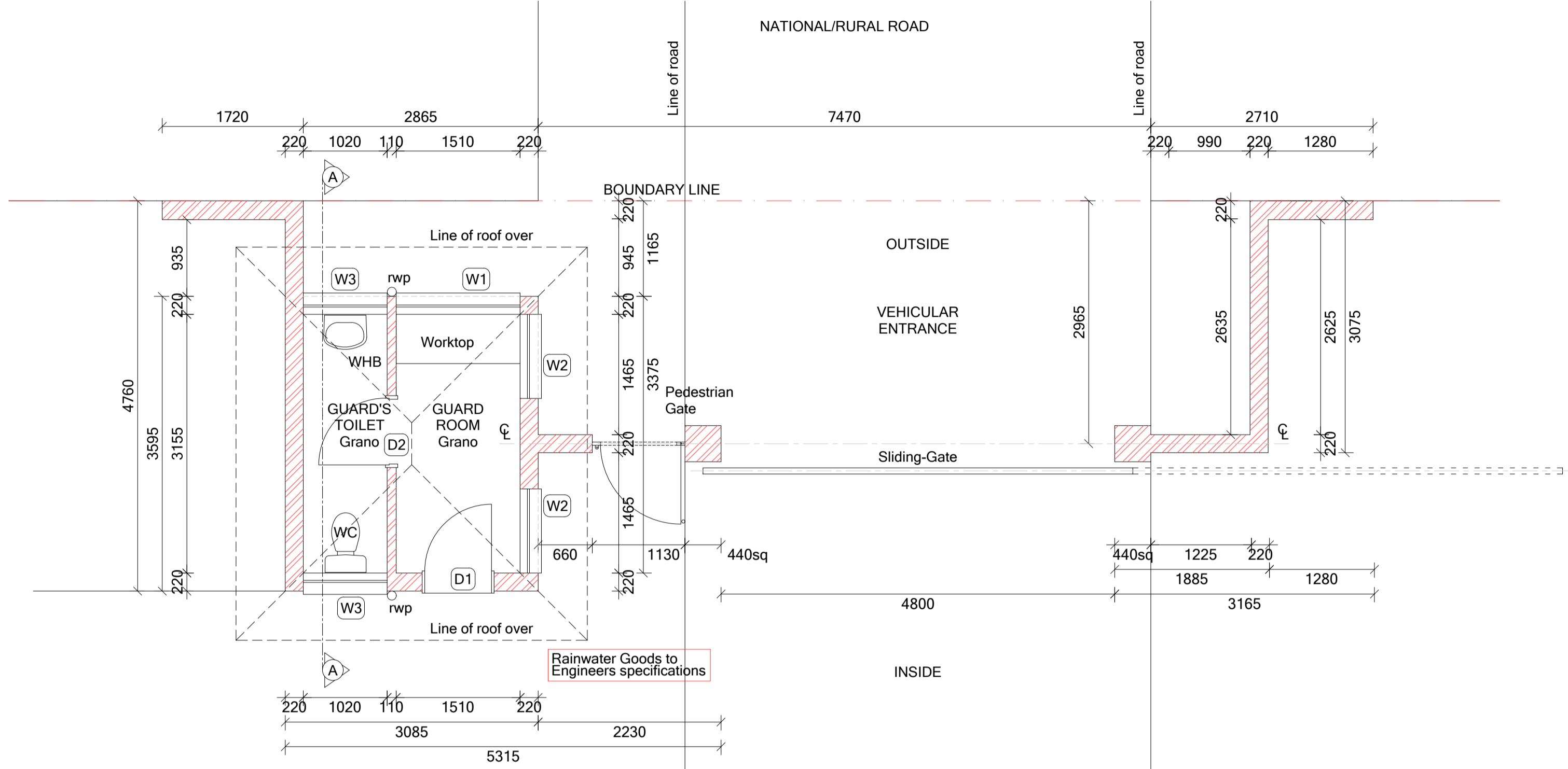
CONSULTANT :

ruben reddy architects

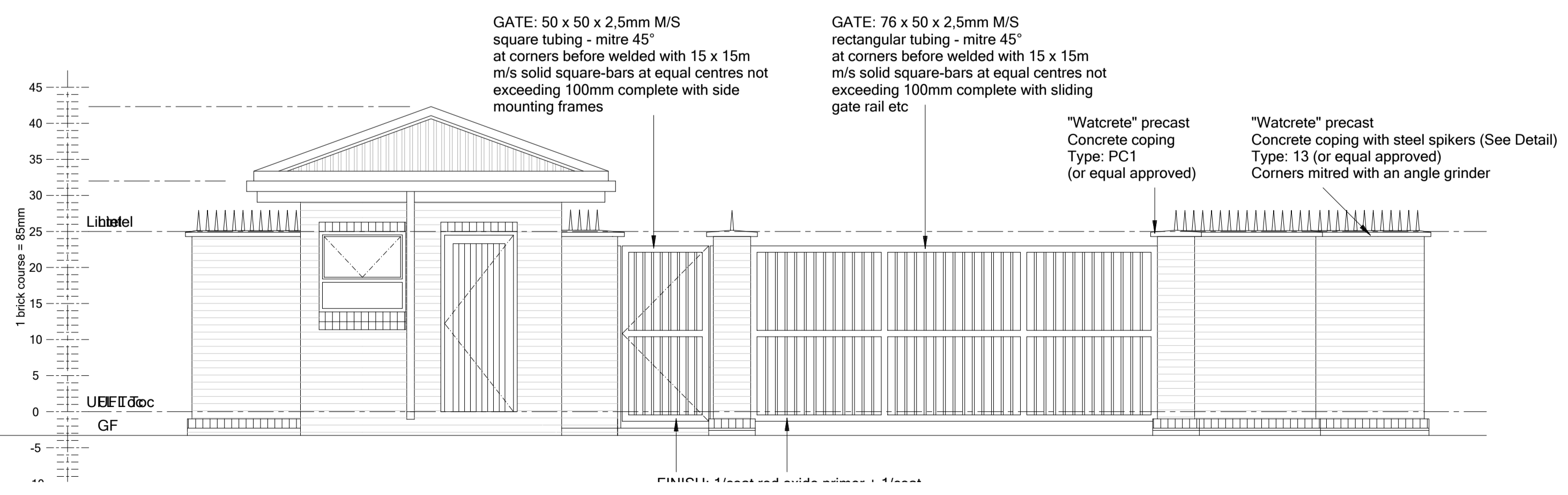
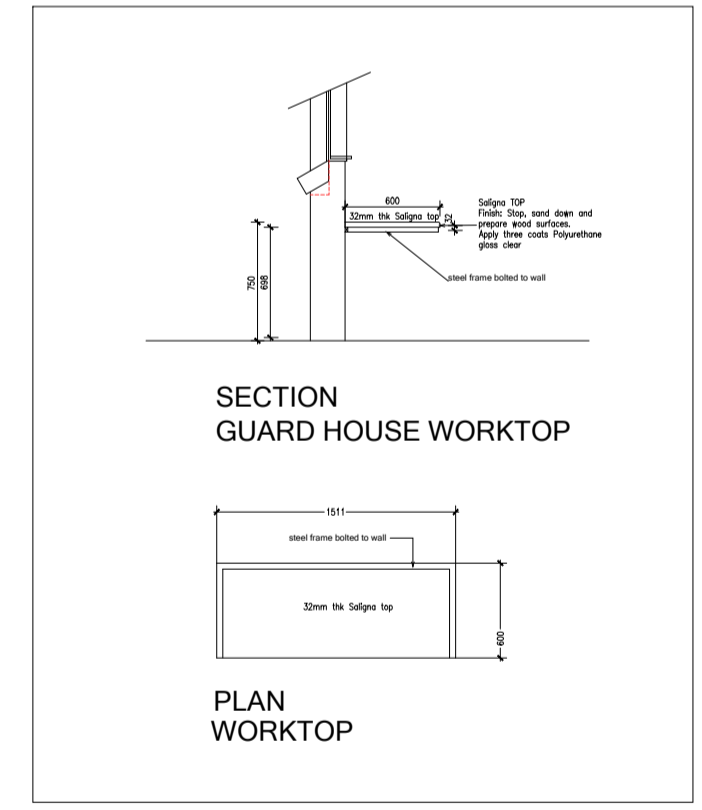
Suite 4 No 8 Temini Office Building
6 Temini Street, Polokwane, 0959 South Africa
Tel: +27 15 085 0645, Fax: +27 11 475 8364,
Email: info@rubenreddyarch.co.za
Web: www.rubenreddyarch.co.za

CADD SYSTEM	DRAWING NUMBER	FILE NAME
AUTO CAD		

SHEET	DRAWING NUMBER	REV#
A 1	2020_67-MAD-105	A



PLAN: Gate-House
Scale 1:50



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).
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.
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 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 4mm 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 Aquasolv 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.
D4. 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.
D5. DPC - SANS Specified Type B approved 375 micron black dpc in walls at floor level above 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.
D10. 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.
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 cornice.
F2. Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP bracing 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 60 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 louvers - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green).
G8. Flashings at bottom of louvers - 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 and 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) and then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E08/2AS 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 (C-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E08/2AS aluminium fire sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

NOTES :

- 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 800 mm Built in Balustrade
- 4) Gully 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
- 7) Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 8) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 9) 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
EDUCATION

INSTITUTION	
MOKHARI SECONDARY SCHOOL	
INSTITUTION EMIS NUMBER	
906121051	
SERVICE	
NEW BUILDINGS	
CONTRACT - SECTION	
DOCUMENTATION & PROCUREMENT	
DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	4
WORK DESCRIPTION - SUB DIVISION	
GUARD HOUSE	
DRAWING DESCRIPTION	
PLAN, ELEVATIONS AND JOINERY	

FILE No.	ITEM No.
DESIGN	DRAWN
SCALE	CHECKED
1:100	
RESPONSIBLE PROFESSIONAL	
DATE	NAME
2023.06.20	YUSUF VAHED
SIGNATURE	PR NUMBER
	PA7812
DRAWING CO-ORDINATED	
CONSULTANT :	

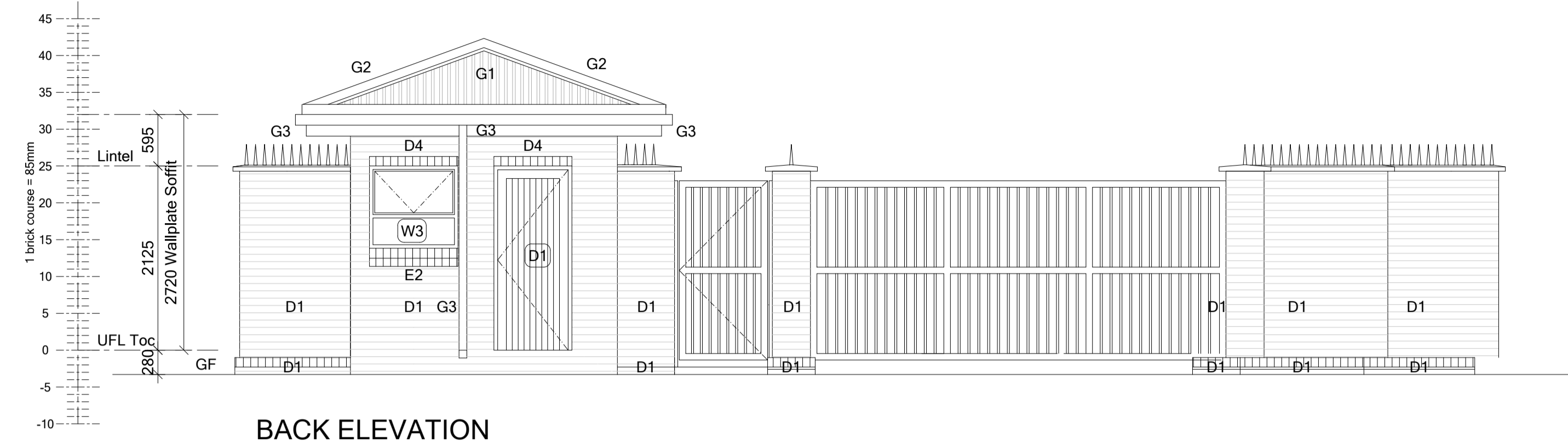
ruben reddy architects

Office: 4 No 6 Union Office Building
6 Union Street, Polokwane, 0959 South Africa
Tel: +27 15 065 0845, Fax: +27 11 475 8364
Email: info@rubenreddyarch.co.za
Web: www.rubenreddyarch.co.za

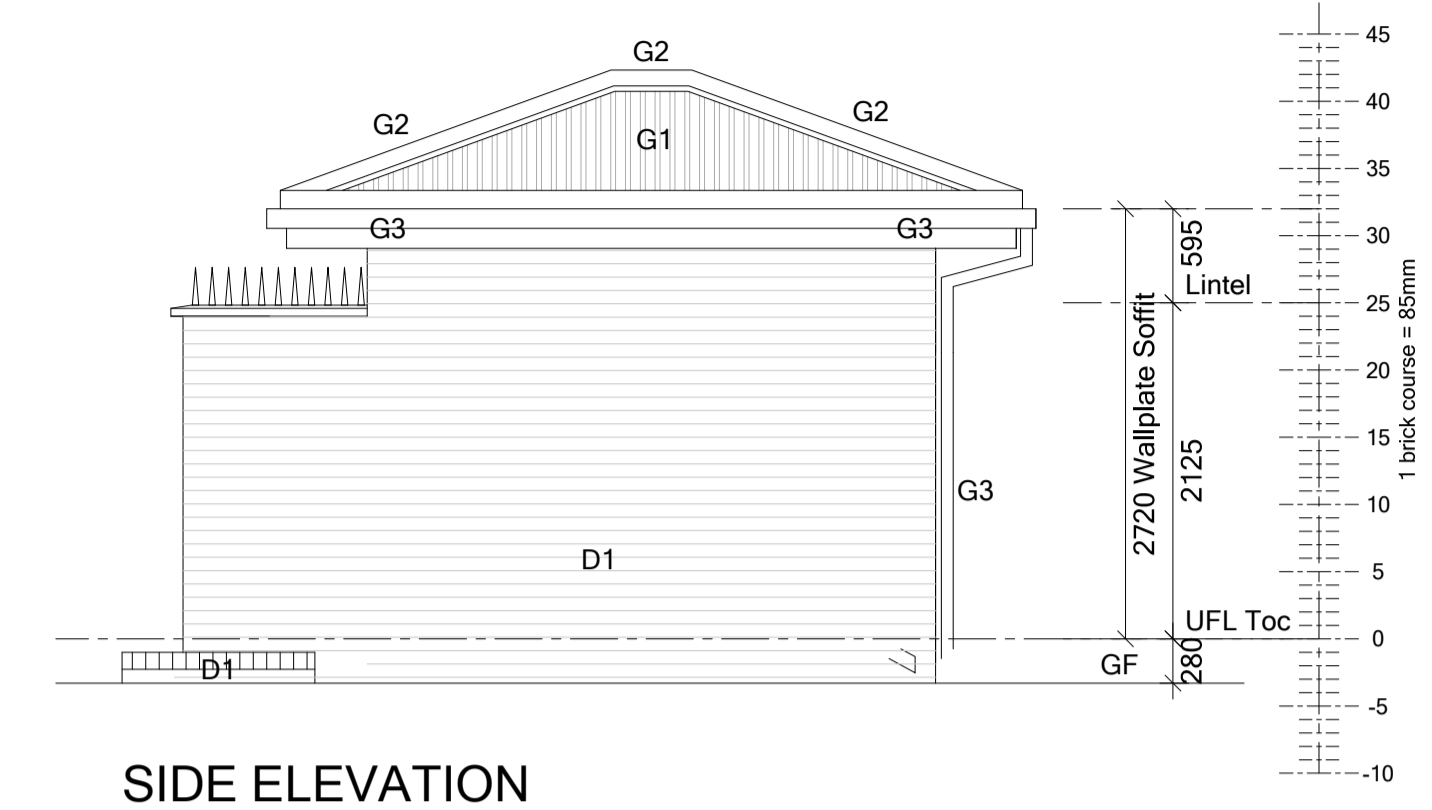
CADD SYSTEM	AUTO CAD	FILE NAME
SCALE	DRAWING NUMBER	REV#
A 1	2020_67-GH-001	A

NOTES :

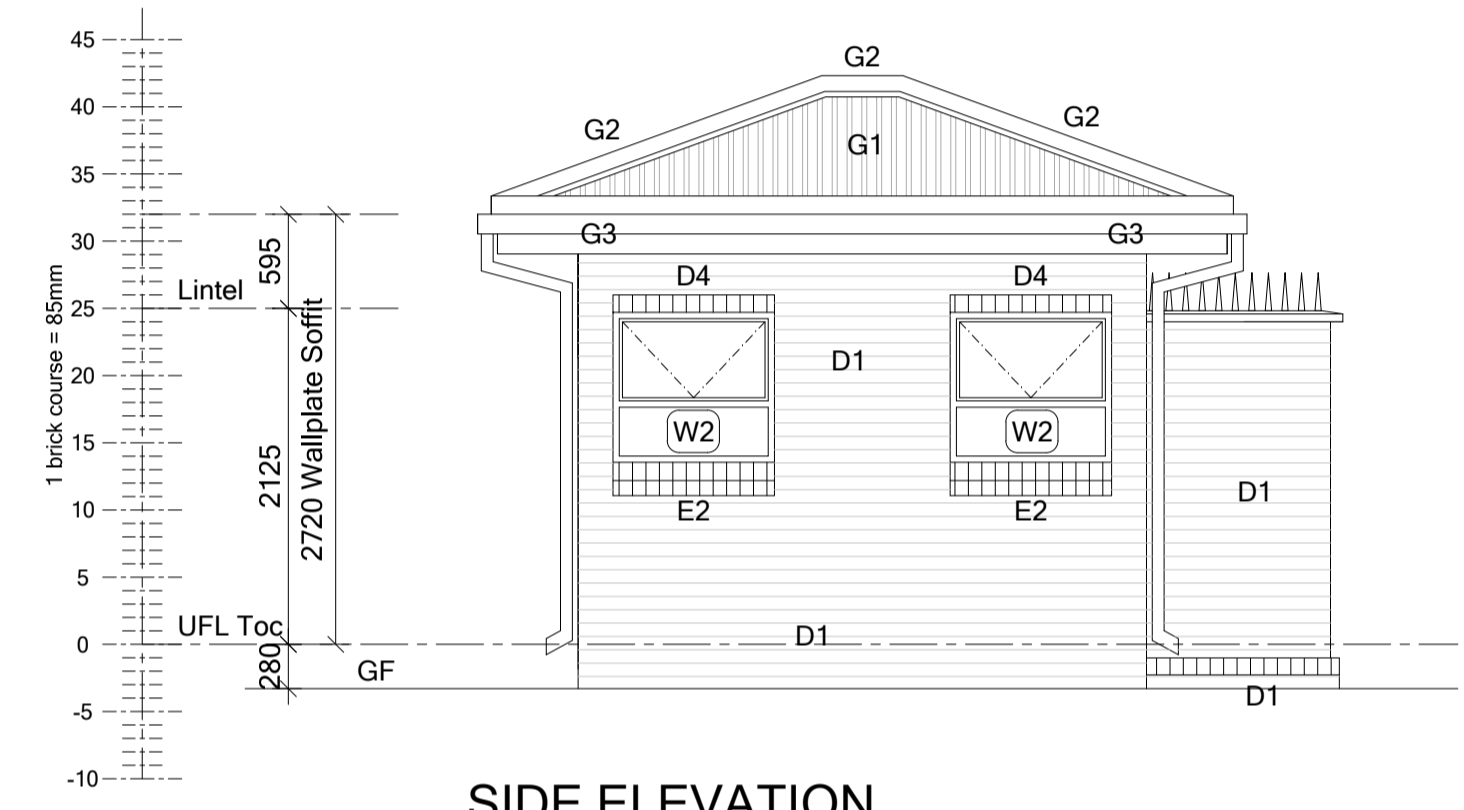
- 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400
- 2) Light Switch in Disabled toilet to be at 1200 mm above FFL
- 3) If Step over 800 mm Built in Balustrade
- 4) Gully positions to be determined as per site prescribed overall drainage design
- 5) 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) Vest 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



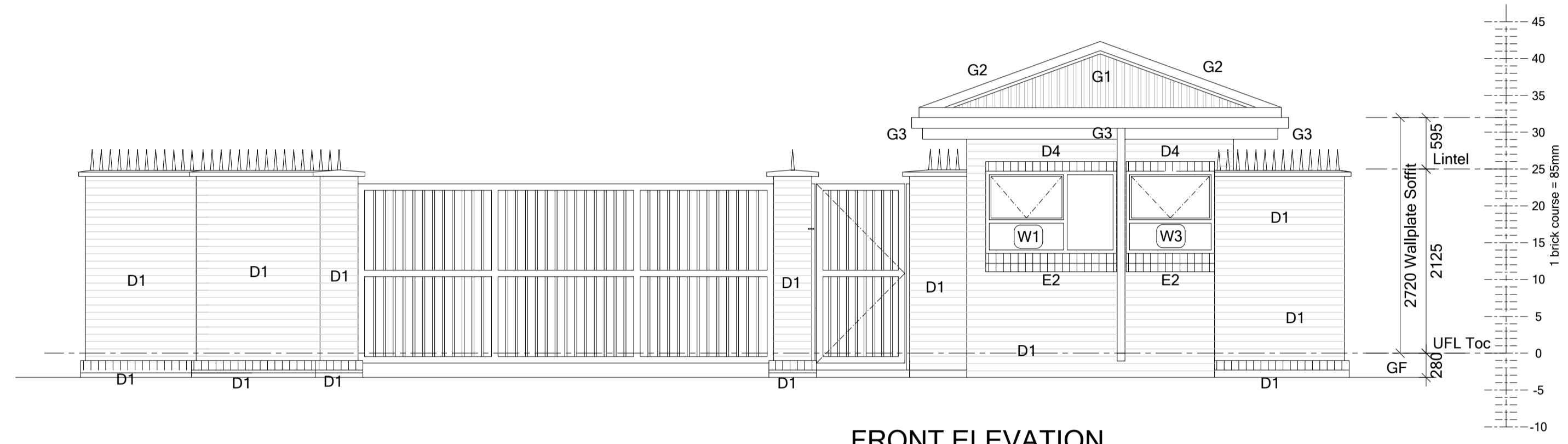
BACK ELEVATION
Scale 1:50



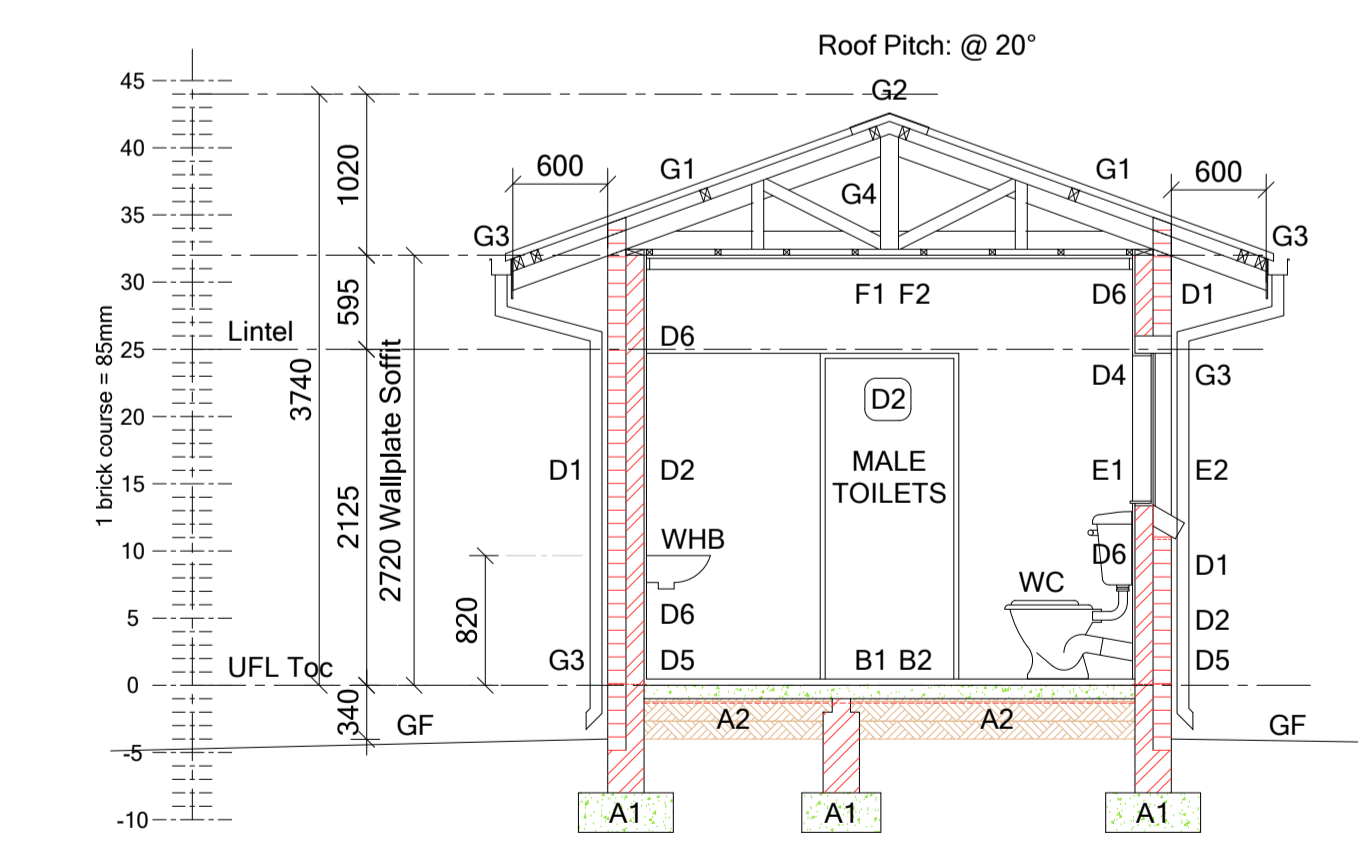
SIDE ELEVATION
Scale 1:50



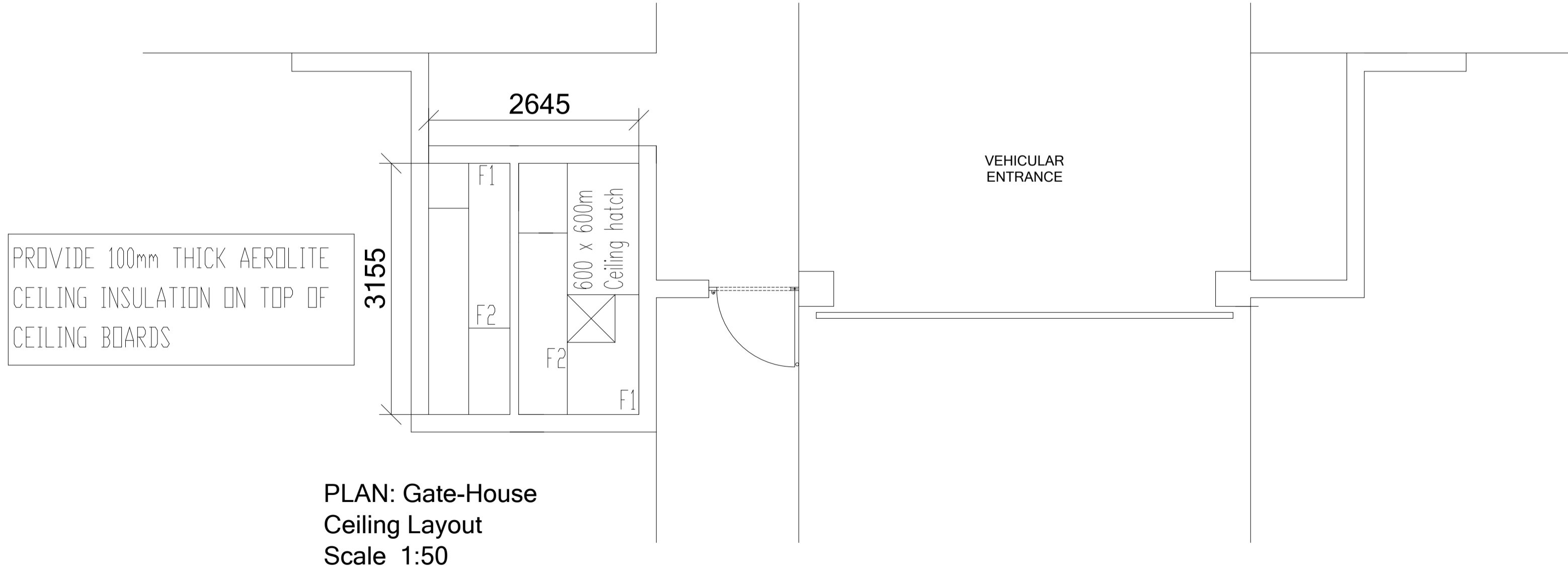
SIDE ELEVATION
Scale 1:50



FRONT ELEVATION
Scale 1:50



SECTION A-A
Scale 1:50



PLAN: Gate-House
Ceiling Layout
Scale 1:50

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
EDUCATION

INSTITUTION

MOKHARI SECONDARY SCHOOL

INSTITUTION EMIS NUMBER

906121051

SERVICE

NEW BUILDINGS

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

DISCIPLINE PROJECT STAGE

ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION

GUARD HOUSE

DRAWING DESCRIPTION

SECTION, ELEVATIONS AND CEILING

FILE No. ITEM No.

DESIGN DRAWN

SCALE 1:100 CHECKED

RESPONSIBLE PROFESSIONAL NAME SIGNATURE PR NUMBER

2023.06.20 YUSUF VAHED PA7812

DRAWING CO-ORDINATED

CONSULTANT :

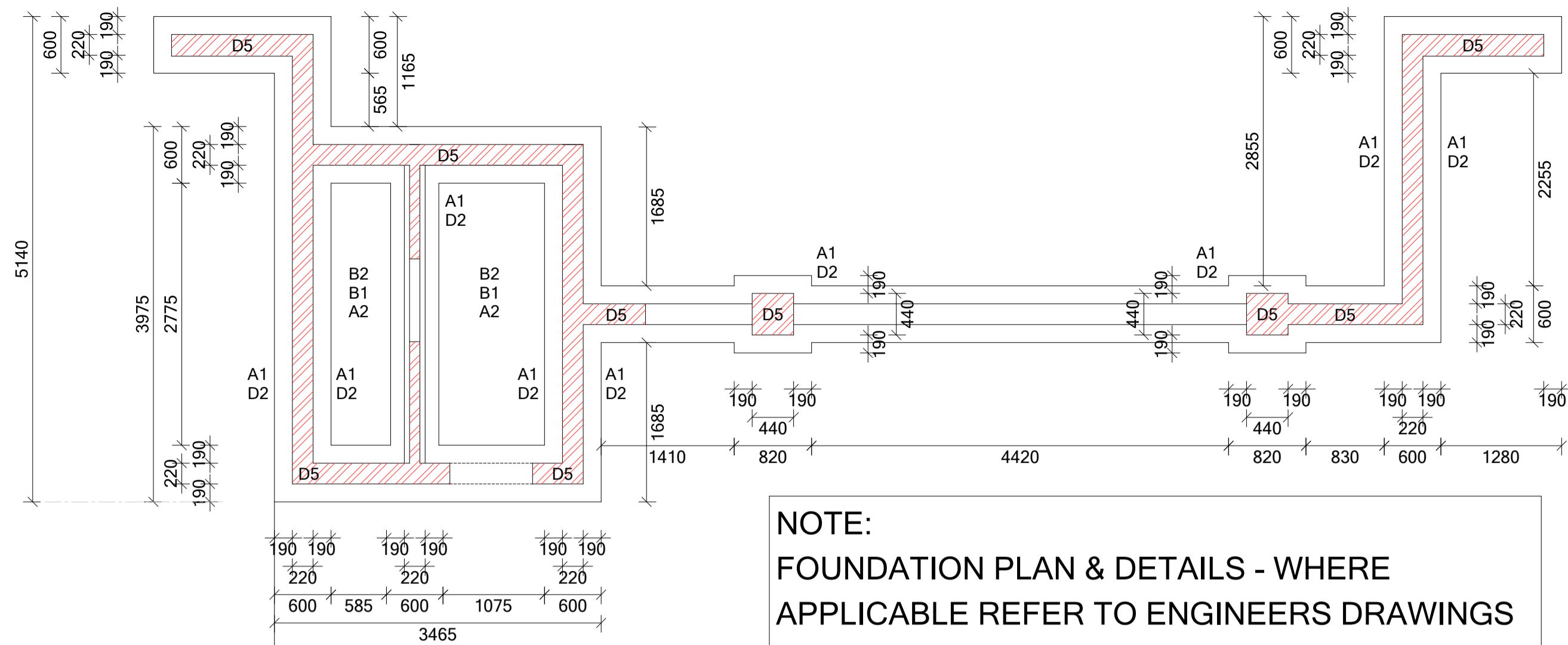

 ruben reddy architects
 Suite 4 No 6 Jomo Office Building
 6 Heron Street, Polokwane, 0959 South Africa
 Tel: +27 15 065 0845, Fax: +27 11 475 8364
 Email: info@rubenreddyarch.co.za
 Web: www.rubenreddyarch.co.za

CONTRACTOR :

CADD SYSTEM AUTO CAD FILE NAME

SIZE DRAWING NUMBER REVZ

A 1 2020_67-GH-002 A



FOUNDATION PLAN - Gate-House
Scale 1:50

NOTE:
FOUNDATION PLAN & DETAILS - WHERE APPLICABLE REFER TO ENGINEERS DRAWINGS & DETAILS FOR REINFORCED CONCRETE FOUNDATIONS.

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).
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 125m³ filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with anti 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).
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 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 quadrant 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 15 x 75 x 3mm Thick tubular 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 Aquasolv Degreaser (GR1), remove any 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.
D4 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.
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 Chantreuse (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
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 - Midelwit 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 Ultra (X44) suede varnish to cornices.
F2 Ceilings - 6mm Everite Nutec fibre-cement boards nailed to 38 x 38mm SAP bracing 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 bracer 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.

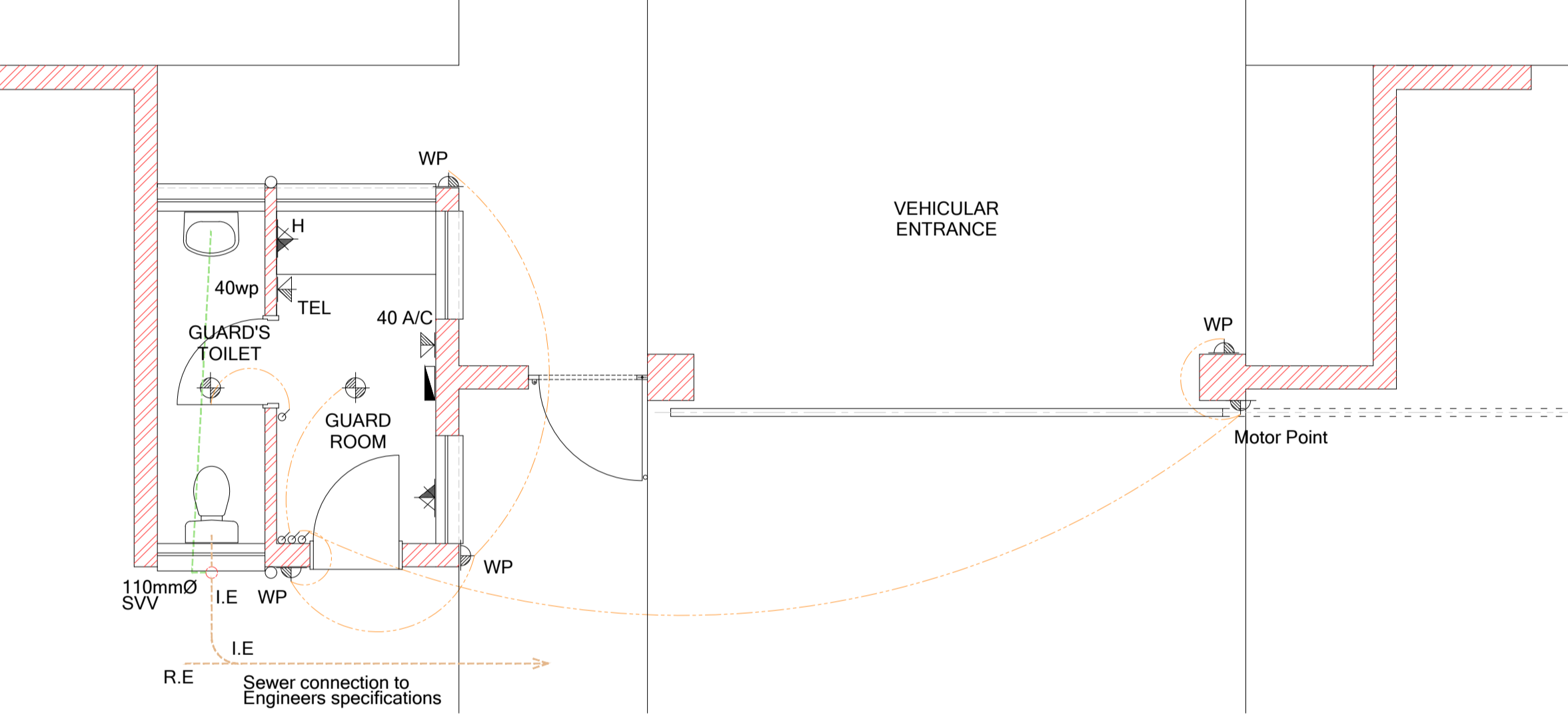
Roof and fascias
G1 Roof sheeting - 0.58mm Brownbuilt Klip-lok roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP purlins at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by specialist installer providing a five year guarantee.
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 treated to be carbolineum treated before fixing in position. Trusses to be secured to walls with 25mm 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 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).

Fixtures
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 and 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 C25 double door steel cupboard with hard 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.

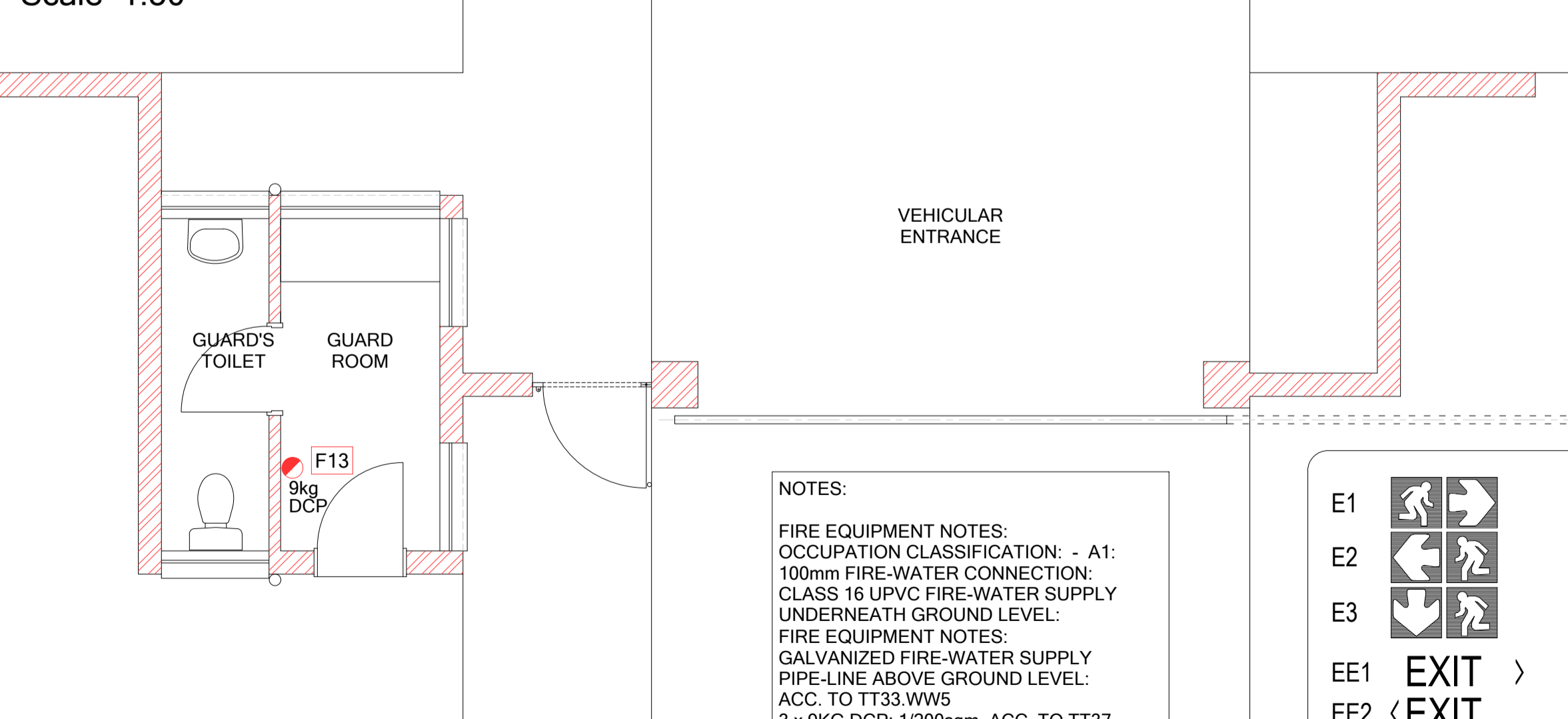
Miscellaneous
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to back plate. Provide 150 x 150mm Union AL5066-E05/2AS 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 (C-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium fire sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

- NOTES :**
- 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 800 mm Built in Balustrade
 - 4) Gully 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
 - 7) Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
 - 8) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
 - 9) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

ELECTRICAL LEGEND	
	15 AMP DOUBLE PLUG BUILT IN 500mm ABOVE FFL
	15 AMP DOUBLE PLUG POINT BUILT IN 1000mm ABOVE FFL
	TELEPHONE POINT
	12 AMP ISOLATOR FOR AC UNIT MOUNTED 150mm BELOW CEILING
	40 AMP ISOLATOR FOR AC UNIT MOUNTED 500mm BELOW ROOF'S EAVE
	LIGHT SWITCH



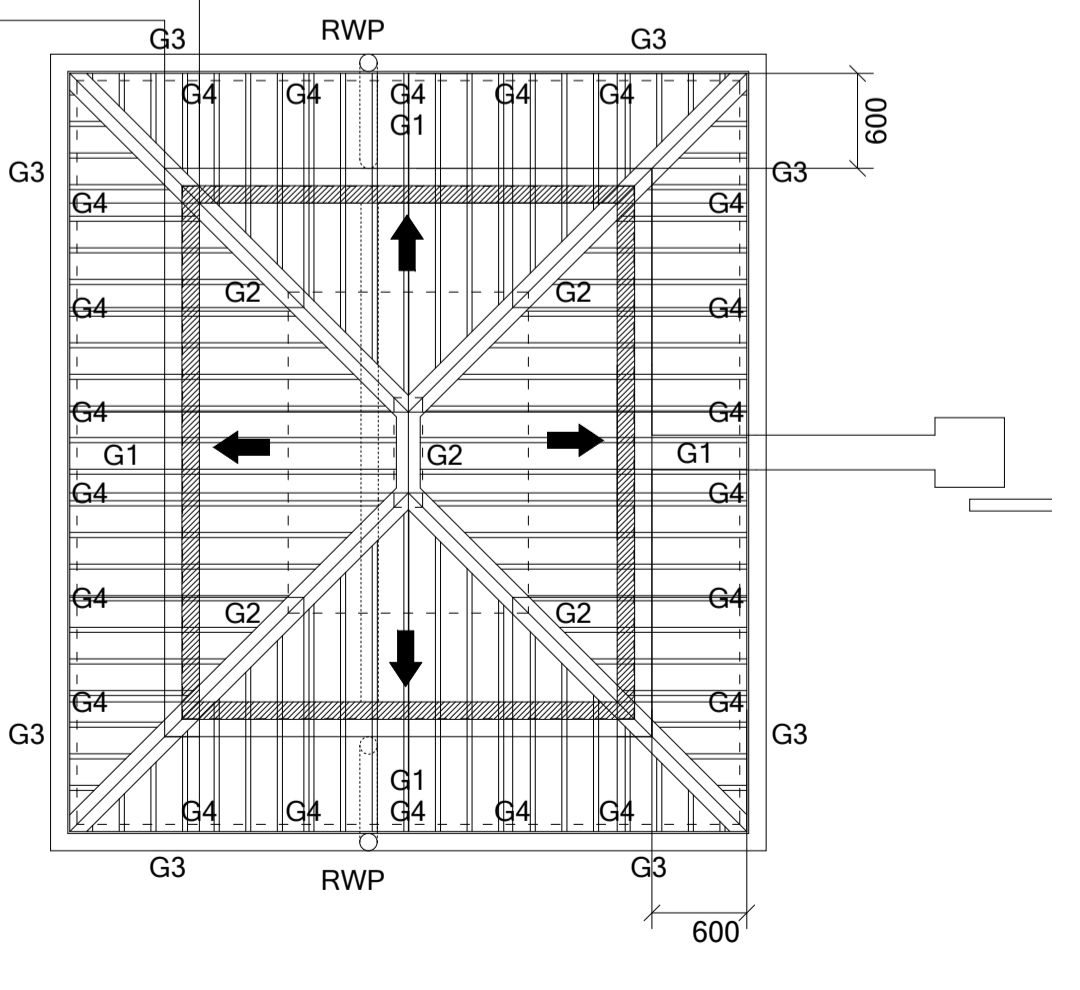
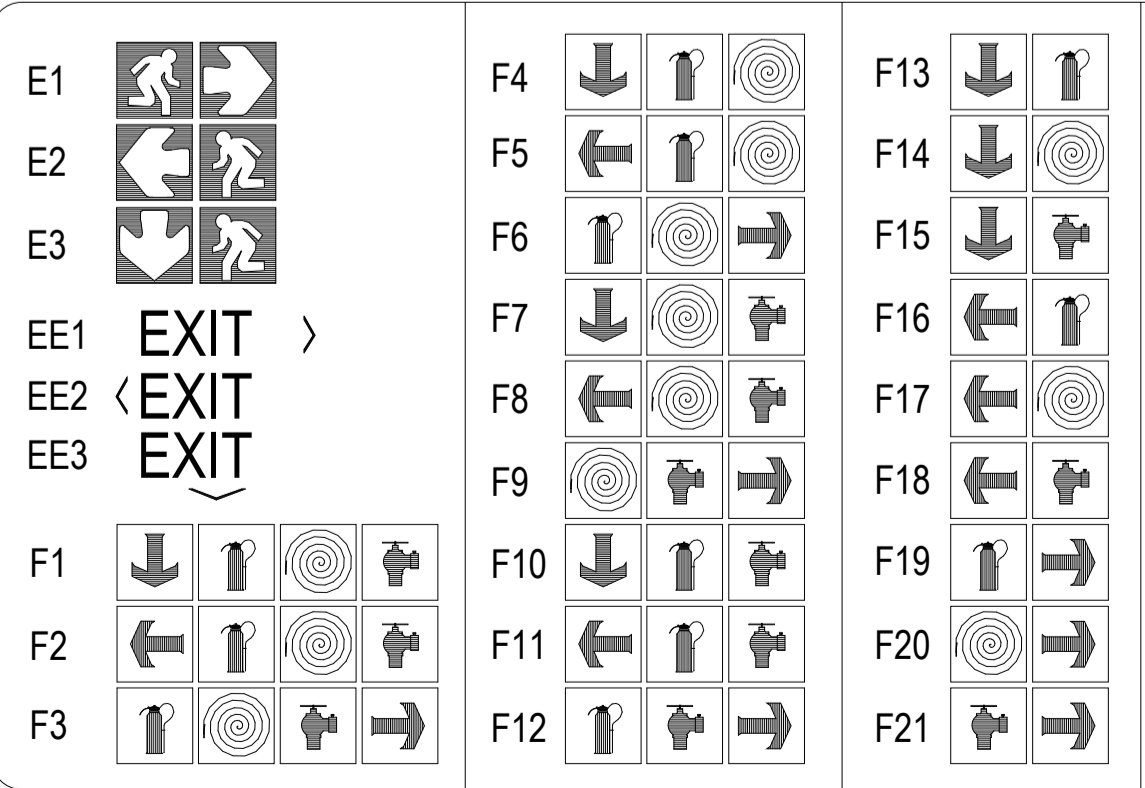
PLAN: Gate-House
Sewer Drainage & Electrical Layout
Scale 1:50



PLAN: Gate-House
Water & Fire Equipment Layout
Scale 1:50

NOTES:

FIRE EQUIPMENT NOTES:
 OCCUPATION CLASSIFICATION: - A1:
 100mm FIRE-WATER CONNECTION:
 CLASS 16 UPVC FIRE-WATER SUPPLY UNDERNEATH GROUND LEVEL:
 FIRE EQUIPMENT NOTES:
 GALVANIZED FIRE-WATER SUPPLY PIPE-LINE ABOVE GROUND LEVEL:
 ACC. TO TT33.WW5
 3 x 9KG DCP: 1/200sqm. ACC. TO TT37.
 2 x 30m FIRE HOSE REEL ACC. TO TT34
 SIGNAGE & EQUIPMENT ACC. TO TT32
 SIZES OF SIGNAGE MINIMUM 150x150mm PROVIDED BY SPECIALIST ACC. NBR & MUNICIPAL APPROVAL.
 SIZES OF STEPS, RISERS: 170mm TREADS: 250mm
 ACC. TO MM2.3 & 2.4 REF TO SECTION.



ROOF PLAN: Gate-House
Scale 1:50

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
EDUCATION

INSTITUTION

MOKHARI SECONDARY SCHOOL
INSTITUTION EMIS NUMBER

906121051

SERVICE

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT
DISCIPLINE PROJECT STAGE

ARCHITECTURAL 4

WORK DESCRIPTION - SUB DIVISION

GUARD HOUSE
DRAWING DESCRIPTION

FOUNDATION, SEWER, FIRE AND ROOF

FILE No. ITEM No.
DESIGN DRAWN
SCALE 1:100 CHECKED

RESPONSIBLE PROFESSIONAL
DATE NAME SIGNATURE PR NUMBER

2023.06.20 YUSUF VAHED [Signature] PA7812

DRAWING CO-ORDINATED

CONSULTANT:

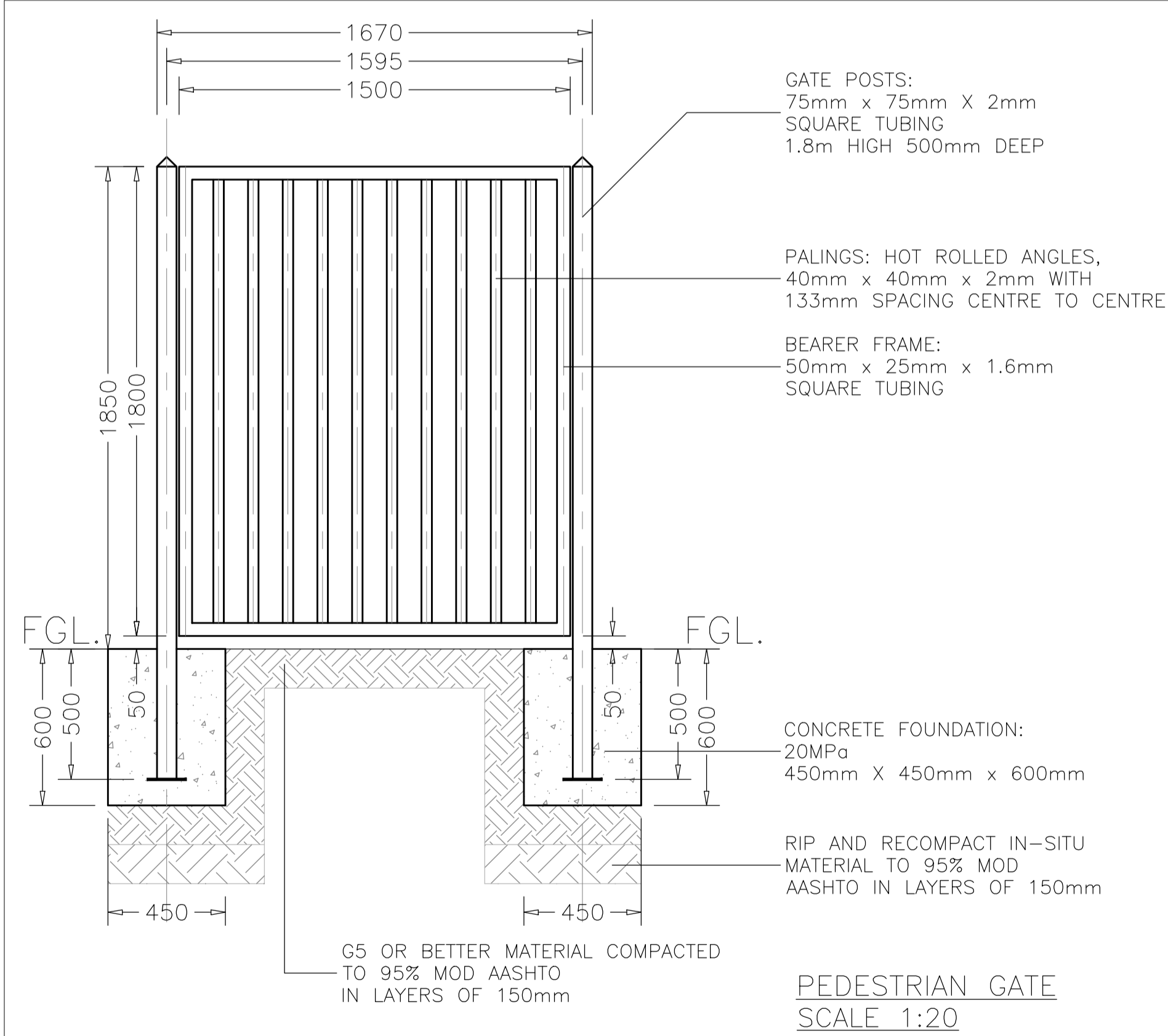
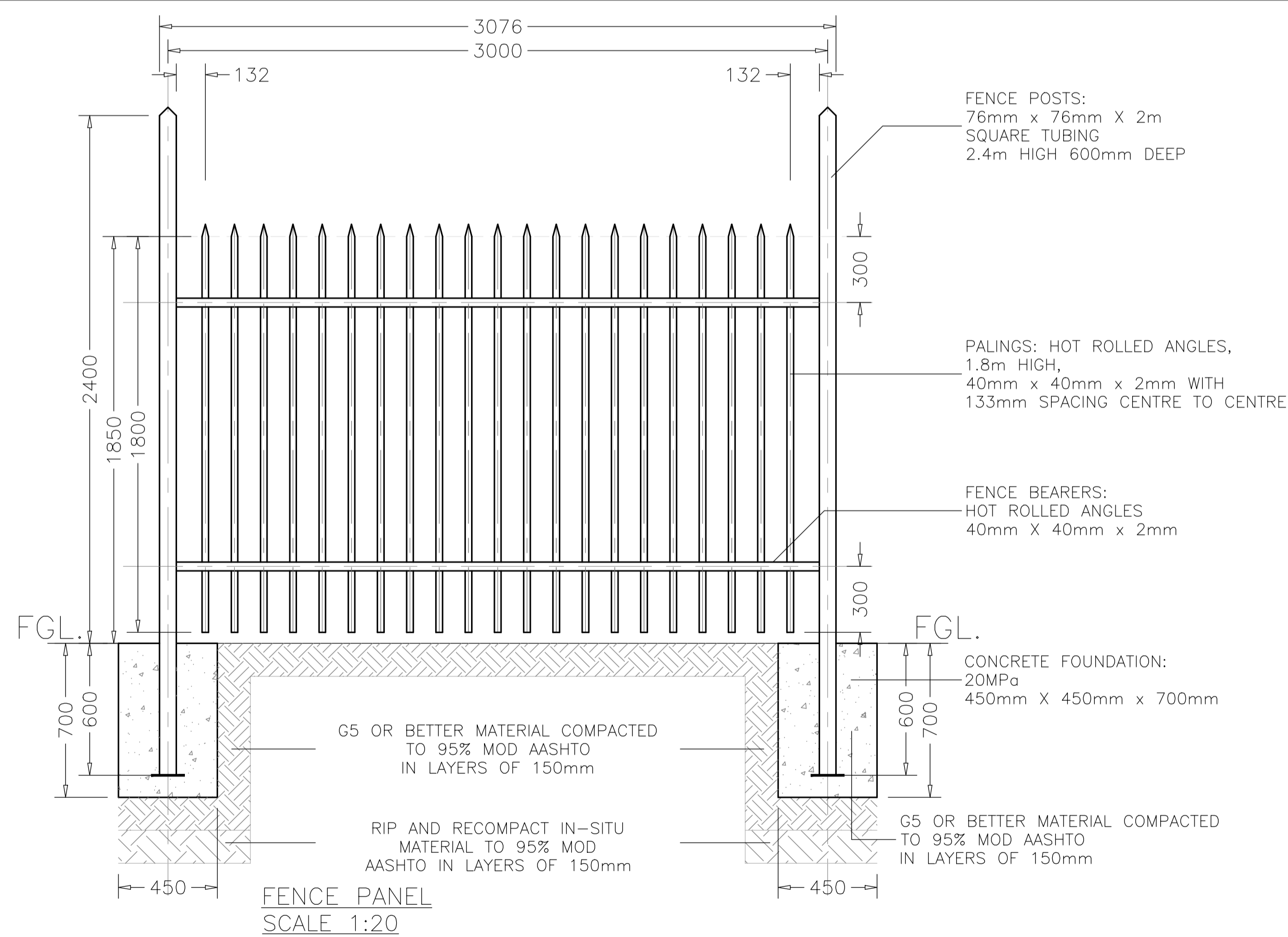
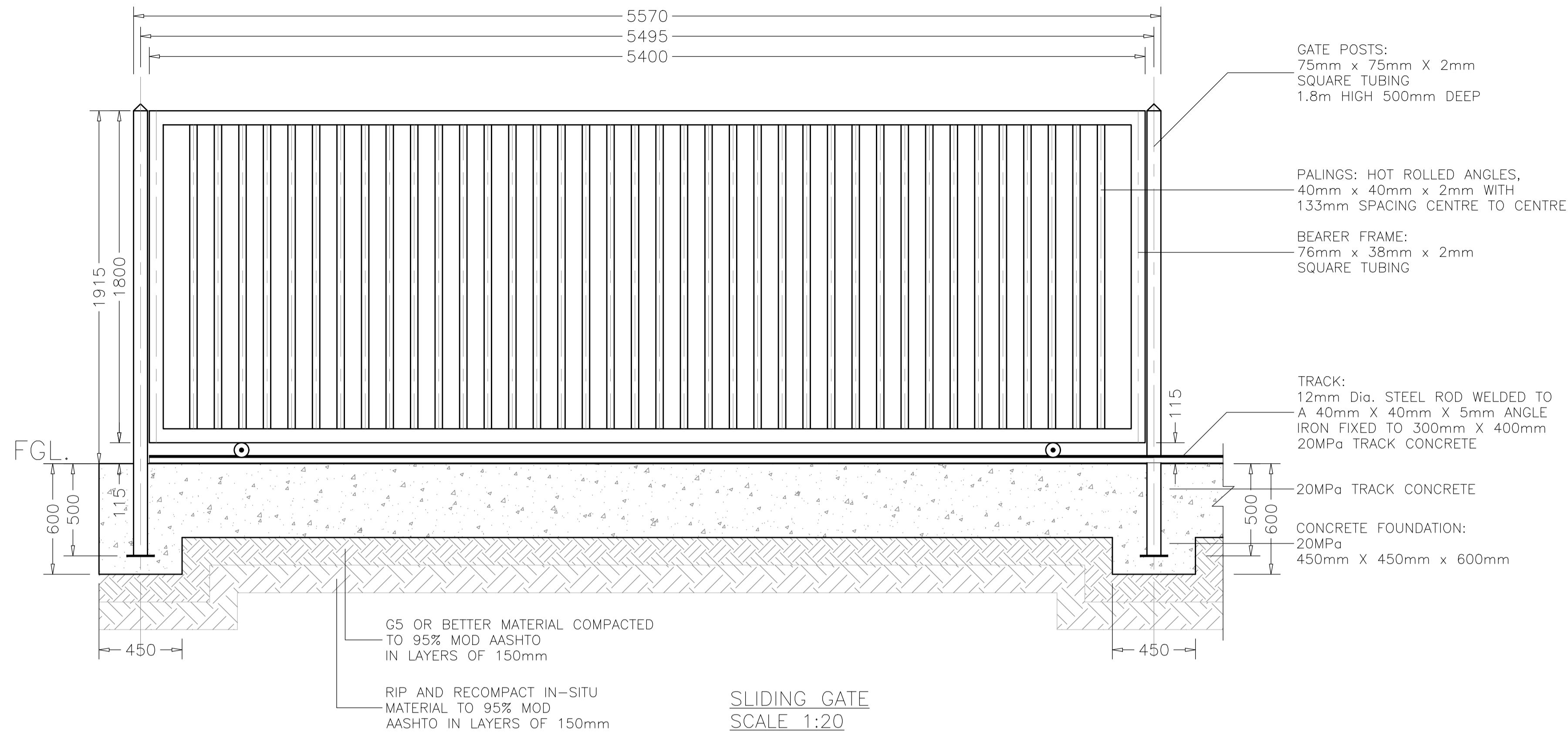
ruben reddy architects
Suite 4 No. 6 Union Office Building,
6 Hornby Street, Johannesburg, 2009 South Africa.
Tel: +27 11 065 0845, Fax: +27 11 475 8364,
Email: info@rubenreddyarch.co.za
Web: www.rubenreddyarch.co.za

CONTRACTOR:

CADD SYSTEM AUTO CADD FILE NAME
SIZE DRAWING NUMBER REVZ

A 1 2020_67-GH-003 A

ISSUED FOR TENDER



NOTES.

Panel: 1.8 x 3m

- Fence bearers:
 - 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.
- Palings "Devil fork"
 - 21 palings per panel.
 - 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.
- Posts:
 - 76 x 76 x 2 mm steel square tubing with closing pyramid caps on top.
 - Post must 2.4m high and 600mm will be planted into concrete footing.

Palisade Gates

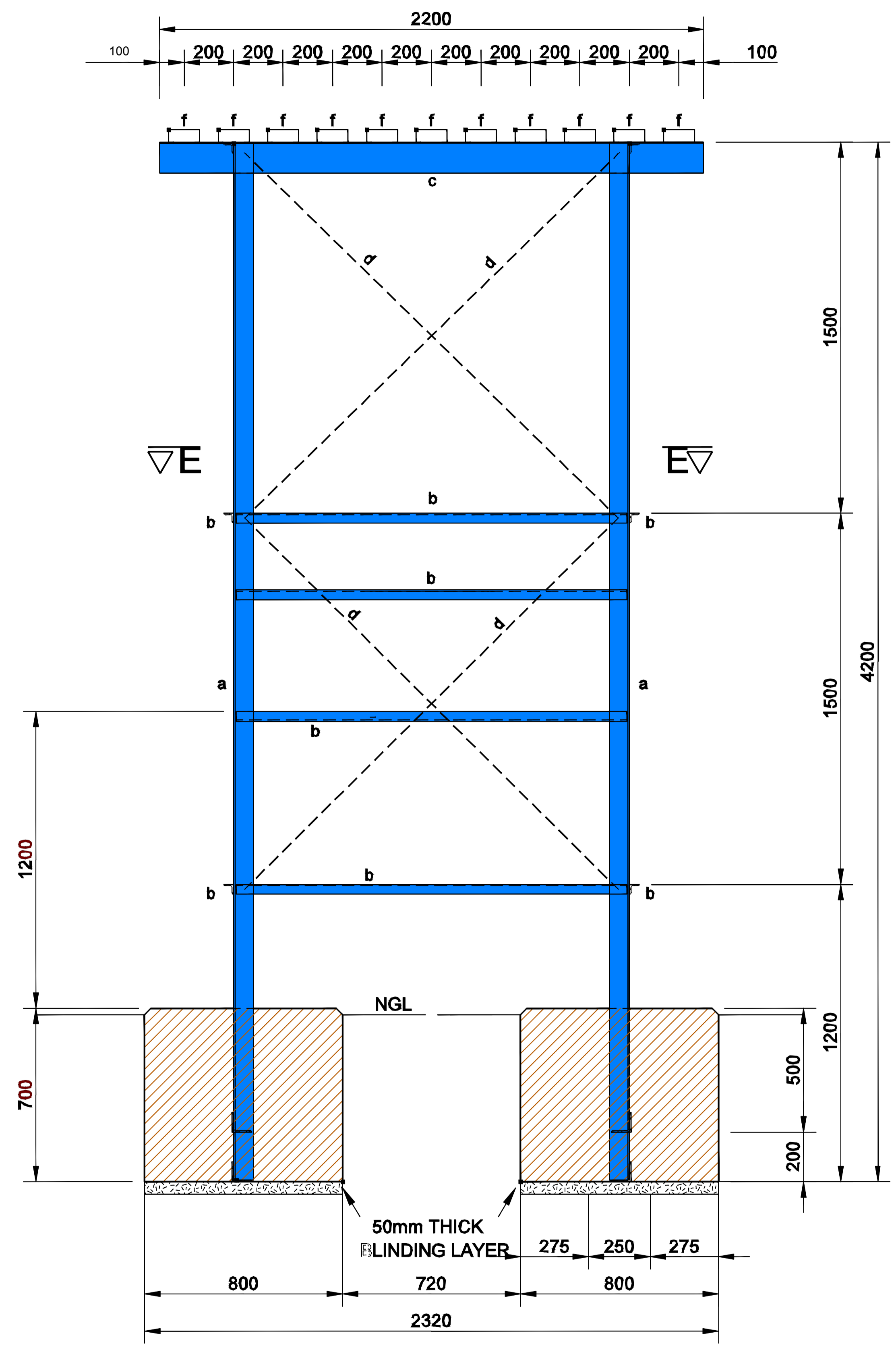
- Sliding Gate:
 - 5/4 m wide x 1.8 m high. 40 x 40 x 2 mm angle iron palings welded to a 76 x 38x 2mm rectangular tubing bearer frame.
 - Palings to be placed at 133 mm apart from each other centre to centre.
 - Gate to be provided with 2 x 80mm roller coaster wheels fitted with ball bearing. These 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.

- Pedestrian gate:
 - 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.

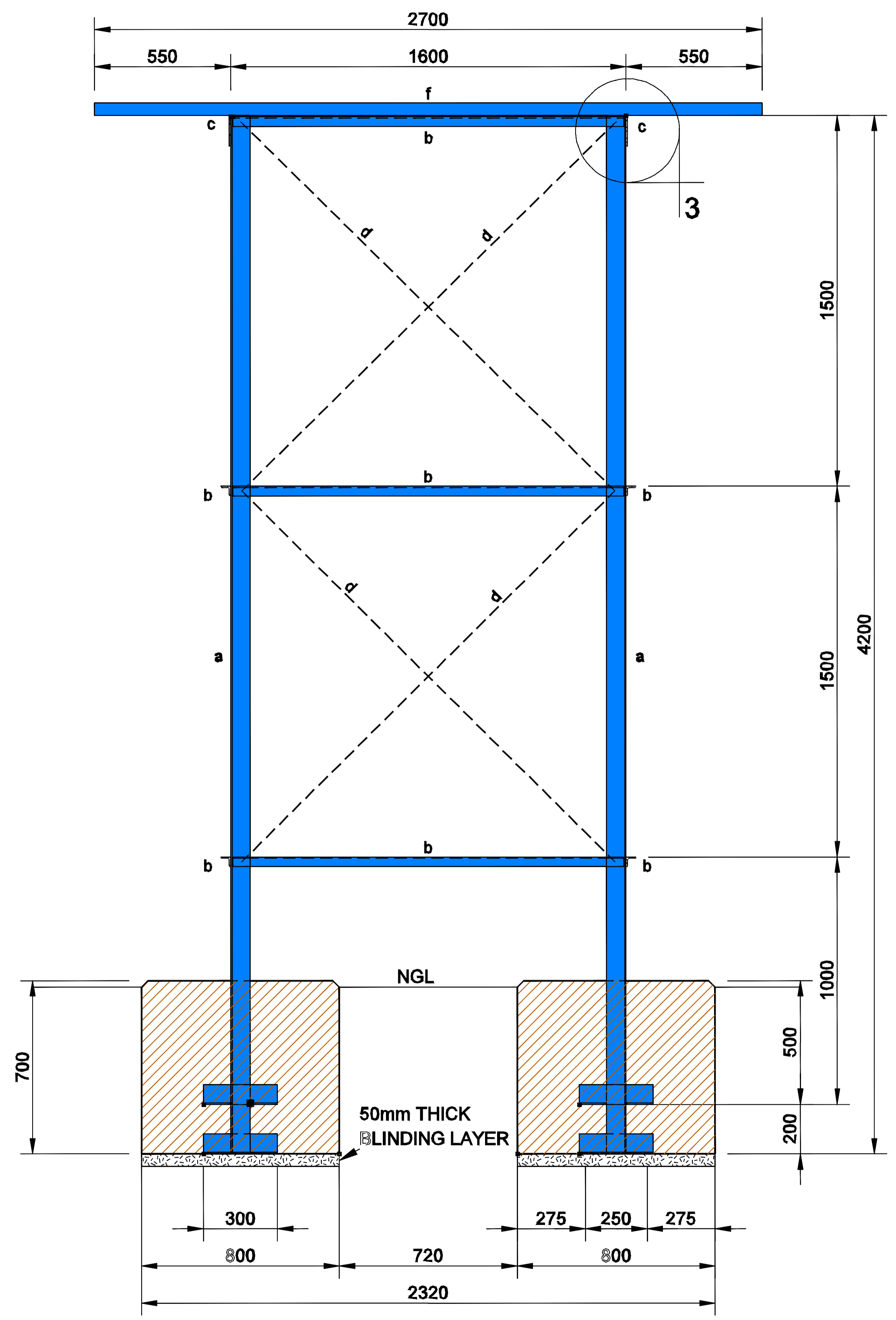
Painting

- 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.

				CLIENT	MUTEO CONSULTING	39 GROBLER STREET POLOKWANE 0699 P.O. BOX 6196 POLOKWANE NORTH 0750 TEL : (015) 291 4065 FAX : (015) 291 4043 website: www.muteo.co.za	PROJECT APPR.	DATE	BY	SIGNATURE	SCALE	ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE
							DESIGNED	02 July 2021	V.M		DO NOT SCALE IF IN DOUBT ASK.	TITLE
							CHECKED	02 July 2021	E.M			PROJECT No.
							DRAWN	02 July 2021	V.M		LDPWRI-PROF/16003B	DRAWING No.
							PROJECT MNG.				A1	LDPWRI SCHOOLS/B&C/01
							APPROVED					REV
REV	DATE	CHK	APP	DESCRIPTION			CLIENT					0



SECTION C-C



SECTION D-D

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 – 30x5 flat bar made from commercial steel.
- f - Top platform secondary support beams – 125x75x20x3 lipped channel made from commercial steel.

NOTES:

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.

REV	DATE	CHK	APP	DESCRIPTION



39 GROBLER STREET
 POLOKWANE 0699
 P.O. BOX 6196
 POLOKWANE NORTH
 0750
 TEL : (015) 291 4065
 FAX : (015) 291 4043
 website: www.muteo.co.za

PROJECT APPR.	DATE	BY	SIGNATURE
DESIGNED	10/08/2021	V.M	
CHECKED	10/08/2021	E.M	
DRAWN	10/08/2021	V.M	
PROJECT MNG.			
APPROVED			
CLIENT			

SCALE
DO NOT SCALE IF IN DOUBT ASK.
PROJECT No. LDPWRI-PROF/16003B
DRG SIZE A1

ALL DIMENSION IN mm UNLESS SPECIFIED OTHERWISE	
TITLE	LDPWRI STORM DAMAGED SCHOOLS PVC TANK STAND DETAILS
DRAWING No.	LDPWRI SCHOOLS/B&C/03A
REV	0