



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

BID NUMBER: LDPWRI-B/20102

**PROVISIONAL
BILL OF QUANTITIES**

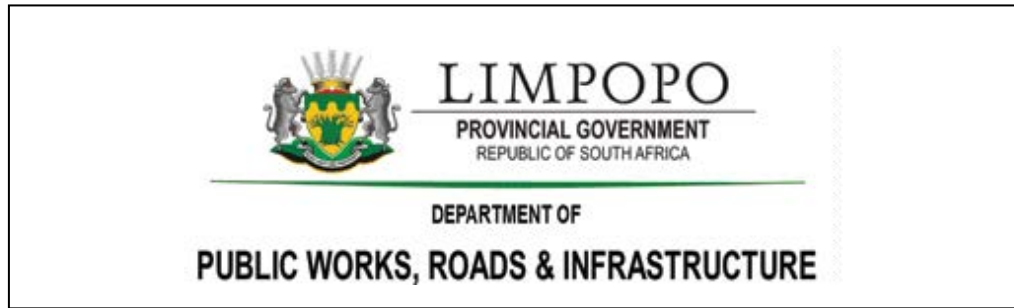
For the

**CONSTRUCTION OF NEW SCHOOL AT DAVID SCARA KUTUMELA
PRIMARY SCHOOL**

For the

**DEPARTMENT OF EDUCATION,
LIMPOPO PROVINCE**

CIDB CLASS GRADING: 7 GB OR HIGHER



CIDB CLASS GRADING 7 GB OR HIGHER

BID NUMBER: LDPWRI-B/20102

**CONSTRUCTION OF NEW SCHOOL AT DAVID SCARA KUTUMELA
PRIMARY SCHOOL**

PROCUREMENT DOCUMENT

Name of Tenderer:

CIDB CRS Number:

CSD Registration Number:

Tax Pin:

Tender Amount including Vat:

CLOSING DATE AND TIME:

ISSUED BY:

**DEPARTMENT OF PUBLIC WOKS, ROADS AND INFRASTRUCTURE
PRIVATE BAG X9491
POLOKWANE
0700
TEL: 015 284 7000/1**

CONTENTS

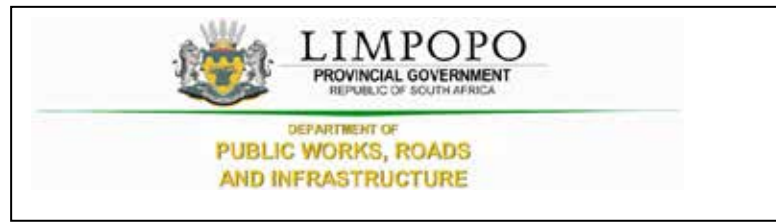
PART A: SPECIAL NOTES TO BIDDERS	1
PART T1: TENDERING PROCEDURE.....	14
T1.1 TENDER NOTICE AND INVITATION TO TENDER.....	14
T1.2 TENDER DATA	15
A. BID EVALUATION STAGE 3 - FUNCTIONALITY	21
PART T2: RETURNABLE DOCUMENTS.....	29
T2.1: LIST OF RETURNABLE DOCUMENTS.....	30
T2.2: RETURNABLE SCHEDULE	32
SBD1: INVITATION TO BID.....	33
CERTIFICATE OF AUTHORITY	36
A. CERTIFICATE FOR COMPANY	36
B. CERTIFICATE OF PARTNERSHIP	36
C. CERTIFICATE FOR JOINT VENTURE	37
D. CERTIFICATE FOR THE SOLE PROPRIETOR	37
E. CERTIFICATE FOR CLOSE CORPORATION.....	37
F. BROAD-BASED BLACK ECONOMIC EMPOWERMENT	43
SBD 4: DECLARATION OF INTEREST	46
SBD 6.1: REFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017.....	49
SBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT	55
LOCAL CONTENT DECLARATION	58
GUIDANCE DOCUMENT FOR THE CALCULATION OF LOCAL CONTENT	60
TREASURY DESIGNATED SECTOR	63
ANNEX C: LOCAL CONTENT DECLARATION – SUMMARY SCHEDULE	75
SBD 8: DECLARATION OF BIDDER’S PAST SUPPLY CHAIN MANAGEMENT PRACTICES	85
SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION.....	87
DECLARATION OF SUBCONTRACTING ARRANGEMENTS.....	90

TABLE OF CONTENT

1.	SUBCONTRACTING AS A CONDITION OF TENDER	91
2.	SUBCONTRACTING AFTER AWARD OF TENDER	92
3.	SCHEDULE OF PROPOSED SUBCONTRACTING WORK	93
	SAFCEC JOINT VENTURE AGREEMENT	94
1.	FORMATION OF JOINT VENTURE	95
2.	OBJECT AND MOTIVATION	95
3.	PROFITS AND LOSSES	95
4.	DURATION	95
5.	EXCLUSIVITY	96
6.	PRE-CONTRACT COSTS	96
7.	MANAGEMENT COMMITTEE	96
8.	POWERS OF THE MANAGEMENT COMMITTEE AND DIRECTION OF THE PROJECT MANAGER	97
9.	THE EXECUTIVE BOARD	98
10.	PERSONNEL	98
11.	FINANCING	99
12.	ACCOUNTS	100
14.	BREACH	101
15.	DISPUTES	101
16.	ARBITRATION	102
17.	CONFIDENTIALITY	103
18.	ASSIGNMENT	103
19.	GENERAL	103
	THE CONTRACT	106
	PART C1: AGREEMENT AND CONTRACT DATA	107
	C1.1. FORM OF OFFER AND ACCEPTANCE	108
	C2 CONTRACT DATA	111
	PART C3: PRICING DATA	112
	C3.1 PRICING INSTRUCTION	113
	PART C4: PROVISIONAL BILLS OF QUANTITIES	114
	C4.1 PRELIMINARIES	115

TABLE OF CONTENT

C4.2 BUILDING WORKS	156
C4.3 CIVIL WORKS	304
C4.4 ELECTRICAL WORKS	326
PART C5: SCOPE OF WORKS	341
C5.1 SCOPE OF WORKS.....	342
PART C6: EPWP INFRASTRUCTURE GUIDELINE 2015	437
PART C6: EPWP INFRASTRUCTURE GUIDELINE 2015	437
PART C6.1: DATA COLLECTION TOOL.....	445
PART C7: SITE INFORMATION AND DRAWINGS	446
PART C7.1: SITE INFORMATION	447
PART C7.2: DRAWINGS.....	448



PART A: SPECIAL NOTES TO BIDDERS



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

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

NOTES TO BIDDERS

1. NAME OF PARTIES

EMPLOYER

Limpopo Province Department of Roads & Infrastructure: Works Towers

43 Church Street

Tel: (015) 284 7000/1

Private BAG X9490

POLOKWANE

0700

Contact:

Makape P. @ 082 460 6271

Principal Agent:

Name: Ruben Reddy Architects

Address: 4 Ismini Office Park, Polokwane 0700

Tel: 015 065 0645 Fax: 011 475 8364

Contact:

Name: G. Francis Cell: 082 528 3932

Email: Geshim.Francis@rubenreddyarch.co.za

Quantity Surveyor:

Name: Phahlana Hunadi Quantity Surveyors

Address: 2760 Zone B, Lebowakgomo 0737

Tel: 015 633 6535 Fax: 015 633 6477

Contact:

NL Pholafudi Cell: 082 494 1583

Email: info@phqs.co.za

SPECIAL NOTES TO TENDERERS

Civil Engineers:

Name: Muteo Consulting

Address: 39 Grobler St, Polokwane Central, Polokwane, 0699

Tel: 015 291 4065 Fax: 015 291 4043

Contact:

Name: Vongani Mhangwane Cell: 076 979 6790

Email: vonganim@muteo.co.za

Mechanical Engineers:

Name: NSKECM

Address: 38 Burger Street, Polokwane 0700

Tel: 015 295 2104 Fax: 015 295 2104

Contact:

Name: M. Shumba Cell: 081 345 3339

Email: mark@nskecm.co.za

Electrical Engineers:

Name: NSKECM

Address: 38 Burger Street, Polokwane 0700

Tel: 015 295 2104 Fax: 015 295 2104

Contact:

Name: M. Shumba Cell: 081 345 3339

Email: mark@nskecm.co.za

2. SPECIAL CONTRACT DOCUMENTS

Note:

The clauses in these Special Contract Conditions form part of the contract requirements and shall have preference over any contradicting clauses in these Bills of Quantities, the preliminaries, and the Conditions of Contract.

2.1 CONTRACT DOCUMENTS

The Contract Document will consist of:

- I. The agreement shall be the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005 amended as hereinafter described.
- II. Documents to be provided by the Contractor in terms of the requirements of these Provisional Bills of Quantities. Where reference is made to the "subcontract agreement" this is deemed to mean the "JBCC Series 2000 Nominated /Selected Sub-Contract Agreement" (March 2005 Edition)
- III. The JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee (May 2005 edition) amended as hereinafter described, shall be deemed to be incorporated herein.

SPECIAL NOTES TO TENDERERS

- IV. Tenderers are referred to the above -mentioned documents for the full intent and meaning of each clause thereof. These clauses are hereinafter referred to by clause numbers and headings only, for which, such allowance must be made as may be considered necessary.
- V. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given as far as possible under each relevant clause. Where modifications or amendments as described are made, such modifications and/or amendments shall supersede any conflicting provision in the relevant clauses of the JBCC Series 2000 Preliminaries or the JBCC Series 2000 Principal Building Agreement and the tenderer shall make due allowance for whatever costs and charges he may consider necessary for the carrying out and observance of the provisions of the clauses as modified and/or amended.
- VI. Where any clause is not relevant to this specific contract such clause is marked N/A (signifying “not applicable”).
- VII. “The Model Preambles for Trades” as recommended and published by the Association of South Africa Quantity Surveyors -1999 edition, shall be deemed to form part of this contract documentation. Any amendments and/or additional information is listed under the supplementary preambles at the start of each trade in the bills of quantities.
- VIII. **Pricing of preliminaries - The relevant clause numbers of sections A and B of the preliminaries are listed at the end of the contract preliminaries section for pricing purposes.** if Alternative as set out in clause 10 of the preliminaries hereinafter is to be used for the adjustment of the preliminaries, each item priced is to be allocated to one or more of the three categories.
- IX. The **tenderer** shall allow opposite each of the items for whatever costs and charges he may consider necessary for the carrying out, complying with and due observance of the provisions, conditions, and requirements set out therein.
- X. Only priced items will be considered in respect of any adjustments to this section. Any items left unpriced will be understood to be provided for in the rates given for other items and no claim for extras arising out of the tenderer’s omission to price any item will be entertained.
- XI. Notwithstanding the period stated in the JBCC form of tenders, tenderers shall hold good for a period of one hundred and eighty (180) calendars days from the date of closing of the tenderers and shall not be altered, amended, or withdrawn during that period.

2.2 QUERIES FROM BIDDERS

The pages of these bills of quantities are numbered consecutively as indexed on the first page.

The Bidder shall check the numbers of the pages and should any be missing or duplicated, or the reproduction be indistinct, or if any doubt exists as to the full intent or meaning of any description or these bills of quantities contain any obvious errors, the Bidder shall notify the Accounting Officer/ Quantity surveyor at once who shall

SPECIAL NOTES TO TENDERERS

promptly give a written directive. No liability whatsoever will be admitted in respect of errors in any BID due to the abovementioned causes.

On no account should these documents be used for placing orders for materials. Bidders do so at their own risk and shall not be reimbursed for additional costs so incurred.

2.3 ACQUAINTANCE WITH BID DOCUMENTS

By submission of a BID, the Bidder will be deemed to have acquainted himself/herself fully with the BID documents, local authority requirements and by-laws and all aspects of the work envisaged in the documents before pricing and submission of his/ her BID. The employer may appoint a principal Agent to act on his/ her behalf with full authority and obligations.

2.4 FORMS TO BE COMPLETED

The form of BID together with its appendices must be submitted with the BID.

2.5 SCOPE OF THE WORKS

The project comprises the as well as related services in accordance with the drawings and specifications that will be provided to the contractor.

The Contractor shall provide sufficient qualified technical staff, field staff, and safety personnel to ensure the Works under this contract be satisfactorily carried out safely and meeting the performance targets and programs. The Contractor shall also provide competent attendant(s) to monitor any works concerning the scope of works.

2.6 PROGRAMMING WITH DIRECT CONTRACTORS

Tenderers must take note that some work may be performed by independent/ direct contractors that will not form part of this contract. Tenderers, however, must make provision for these installations in their program and must provide all the necessary assistance to The **Limpopo Department of Public Works, Roads and Infrastructure in completion of the said contracts.**

- Any installations by specialists e.g., Security installation, loose furniture

2.7 SITE

The project is located in Modimolle in Waterberg District.

2.8 CONTRACT DOCUMENTS

The contract/agreement will be based on the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005.

Wherever reference is made to the terms "Client, Employer or Principal Agent) in the documents, it shall be deemed to mean. The Limpopo Department of Public Works, Roads, and Infrastructure or any person acting

SPECIAL NOTES TO TENDERERS

in such capacity as well as any officer to whom any power vested in terms of these conditions of the contract have been delegated to.

2.9 CONFIDENTIALITY OF BID DOCUMENTS

All the recipients of BID documents shall be whether they submit a bid or not, treat the details of these documents as confidential and their general content shall not be disclosed or discussed with third parties without the prior approval of the **Limpopo Department of Public Works, Roads, and Infrastructure**.

2.10 BID ALL INCLUSIVE

The Bidder must allow in his/ her BID for all labour, material, transport, handling, construction plant, temporary works, or method of construction where the method of payment allows for various methods of construction, value-added tax and everything else necessary for the execution and completion of the works in accordance with the BID documents

2.11 BILLS OF QUANTITIES

This Bill of Quantities is provisional and subject to be re-measured.

The Contractor / Bidder is warned that if he/ she use any quantities or specifications appearing in these Bills of Quantities for ordering materials, he/ she does so at his/ her own and no liability whatsoever shall be admitted afterward by the **Employer / Limpopo Department of Public Works, Roads, and Infrastructure** for such correctness of such quantities or specifications.

2.12 STAMP DUTY

If applicable, all stamp duties in connection with the contract shall be paid by the Bidder.

2.13 SIGNING OF BIDDERS

The BID must be signed by a representative of the Bidder being duly authorized to do so and Bidders are to attach a company resolution.

2.14 LODGING AND SCRUTINY OF PRICED BILLS OF QUANTITIES

The Bidder's / Contactor's attention is specifically directed to the provision that, before the contract is signed, he/ she is to submit his/ her priced Bills of Quantities with conditions of contract and cast neatly in black ink for checking. The Accounting Officer / Quantity Surveyor will duly check the priced Bills of Quantities and shall make such adjustment of individual prices and rectify discrepancies as he may consider necessary. No artificial prices shall be acceptable.

2.15 ADDITIONAL INFORMATION REQUIRED

The **Employer / Limpopo Department of Public Works, Roads and Infrastructure** may ask any Bidder for a clarification/s of his / her BID. Nevertheless, no Bidder will be permitted to alter his / her BID sum after the BIDs have been opened and read to other bidders, although clarification which does not change the BID may be accepted.

The Employer reserves the right to appoint a firm of public accountants to report on the financial capacity of any Bidder. The Bidder shall provide all reasonable help and information in such an investigation.

All written information submitted by the Bidder together with and in support of his / her BID shall be considered to form the basis on which the BID has been prepared and submitted.

2.16 ARITHMETICAL ERRORS

The Accounting Officer / Quantity Surveyor reserves the right to correct arithmetical or other errors in the bid document for reasons which the Accounting Officer / Quantity Surveyor will indicate, the Bidder will, in terms of Rule 14, be requested to make corrections.

2.17 IMBALANCE IN BIDDED/TENDERED RATES

In the event of there being any rate or rates which are declared to be unacceptable by the Accounting officer/Quantity Surveyor for reasons which the Accounting Officer / Quantity Surveyor will indicate, the Bidder will, in terms of Rule 14, be requested to:

- a) Either justify and specify rate or rates, i.e. to give a financial breakdown on how such rate or rates were obtained or calculated, or
- b) Consider amending and adjusting such rate while retaining the BID sum derived under Sub-rule 15.a unchanged and fixed.

If the Accounting Officer / Quantity Surveyor requests the Bidder to adjust any unacceptable rate or rates, the Accounting Officer / Quantity Surveyor may at his / her discretion limit any such adjustment to rates in specific sections of the bills of quantities. On no account will the Accounting Officer / Quantity Surveyor permit the Bidder to use such an opportunity to re-price extensive sections of the bills of quantities, even though the BID sum remains unchanged.

2.18 ALTERATIONS TO BID DOCUMENTS

No unauthorized alteration or addition shall be made to the form of BID, to the bills of quantities or any other portion of the BID documents. If any such alteration or additions is made and if the bills of quantities of not properly completed, the BID may be rejected, and the Employer will not be bound to by such alterations.

2.19 BID QUALIFICATIONS

BIDs must be submitted strictly in accordance with the BID documents, i.e. without qualifications. Qualifications like statements of interpretation of contract documents must be avoided and any point of doubt or difficulty should be cleared with the Accounting Officer / Quantity Surveyor as early as possible during the BID period. Should any query be found to be of any influence on the BID, all other Bidders shall immediately be informed of the particulars by the Accounting Officer / Quantity Surveyor.

2.20 COSTS INCURRED BY BIDDER

The Employer shall not be responsible to pay for the expenses or losses, which may be incurred by any Bidder in the preparation of the BID or in visiting the site in connection herewith.

20.21 BID ACCEPTANCE

The Employer will not be bound to accept the lowest or any BID. No reason for the acceptance or rejection of any BID will be given.

20.22 WITHDRAWAL OF BID AFTER CLOSING DATE

The Bidder may not withdraw his BID after the time set for opening BIDs without any BID having been accepted.

Should a Bidder amend or withdraw his/her BID after the specified date and hour, but prior to his being notified of the acceptance thereof, or should a Bidder after having been notified that his/her BID has been accepted.

- (a) Give notice of his/her inability to execute the contract in terms of his BID; or
- (b) Fail to sign a contract or furnish the security within the period fixed in the BID Conditions reflected on the form of BID or any extended period fixed by the Employer; or
- (c) Fail to execute the contract;

He shall pay all additional expended, damages and/or losses which the Employer may incur in calling for fresh BIDs or by paying the difference between his/her BID and a less favourable BID accepted in terms of the provisions of the last paragraph of this term: Provided that the Employer may at its discretion exempt a Bidder from the provisions of this sub-rule if he believes that the circumstances justify the exemption.

When in circumstances mentioned in the second paragraph of this item, the Employer deems it not desirable to invite fresh BID; then the Employer may accept another BID from those already received. The provisions of **Rule 2.21 above, shall again apply.**

2.23 METHOD OF MEASUREMENT

The Bills of Quantities have been measured in accordance with the 6th Edition of the standard system of Measuring Builders Work.

2.24 AVAILABILITY AND SUBSTITUTION OF MATERIALS

Bidders are urged to make themselves, during BID stage, thoroughly acquainted with the availability of all materials for this project as no claim for non-availability or late delivery of materials will afterward be recognized/considered.

If materials specified are not available or it seems that there will be a delay of materials, then the Bidder must notify the **Employer** at once in writing who will, at his/her discretion, attend to the matter. Once the BIDs are

SPECIAL NOTES TO TENDERERS

handed in it will be taken that all materials specified in these Bills of Quantities are available and will be delivered on-site for completion of the project within the prescribed contract period.

The Substitution will be strictly subject to the **Employer's** approval.

The **Contractor** must, as far as possible, purchase materials available in the Limpopo Province provided the quality is acceptable. Materials of inferior quality shall under no circumstances be accepted. If the **Contractor** cannot comply with these conditions, he/she must substantiate this in writing with documentary proof from suppliers.

2.25 PROPRIETARY TYPES AND TRADE NAMES

Where reference is made in these Bills of Quantities to proprietary types or names, the products, or materials, etc. referred to are to be exactly as described, the prior approval of the **Employer** must be obtained for any substitution and may be the subject to a variation order.

2.26 SABS SPECIFICATIONS

All references in these Bills of Quantities to Specifications of the Bureau of Standards shall be deemed to be a reference to the latest issues of such specifications, and any subsequent amendments thereto. All articles, materials or items described as to conform to the SABS Specification must bear the SABS mark where possible.

2.27 PERFORMANCE GUARANTEE

Where the project is over R 2 000 000.00 the Bidder must submit with this BID proof (using a letter of intent or otherwise) from his/her guarantor that his/her guarantor will issue the guarantee if the BID is accepted.

2.28 BID

While the Employer reserves the right to accept or not accept any BID, the intention is that a BID will be accepted. The successful Bidder will be appointed as the Main Contractor in terms of the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 4.1, and March 2005. Any condition submitted by the Bidders which is a variance with the provisions of the main contract will not be accepted and may render the BID liable to disqualification.

The BID shall be sealed in an envelope and endorsed as per BID form and be deposited in the BID box as per BID advert.

On no account will BIDS received after the time and date for submission of BIDs be considered and Bidders are advised that postal delays will not constitute a claim for recognition of such BIDS.

Telegraphs or telefaxed BIDS will **NOT** be considered under any circumstances.

2.29 INSPECTION OF SITE

A Compulsory site inspection will not be conducted due to COVID-19 regulations. Tenderers are, however, urged to thoroughly inspect the site, acquaint themselves with the nature and extent of the works, the site conditions about power and water supply, transport facilities, conditions of adjacent existing buildings and also access to the site, availability of working space, etc.; before submitting their BIDs **as no extra cost arising out of their failure to price for the above mentioned shall be considered.**

2.30 SITE OFFICE

The Contractor shall erect, maintain, and takedown on completion of the work a building for site meetings with a concrete floor, suitable roof, suitable walls, door, and four windows, with tables and chairs (not benches), all suitable to accommodate 12 persons.

It is further a condition that all work or movement of vehicles in the vicinity of this office that creates noise or nuisance during site meetings must be suspended for the duration of the site meetings.

2.31 LOCAL LABOUR

As soon as the site is handed to the Contractor, he/she will be expected to form a joint committee with the local community. This committee will ensure that all unskilled and available semi-skilled labour are employed from the community.

All labour shall apply through the committee for employment on the project and the selection of these labourers shall be made by the Contractor from a list of applicants compiled by the community members on the committee.

On all labour-intensive projects, at least 10% of the labourers must be employed from the local community where the project will be executed.

Labourers should be paid in accordance with the provision of the Labour Relations Act, Act 23 of 1956 and the amended Basic Conditions of Employment of 1983, or any latest available Acts.

In accordance with Government Gazette No.16095 of 19 November 1994 wages differ for different areas.

2.32 PROCEDURE OF THE WORK

The Employer reserves the right to direct the order in which the various parts of the contract will be executed should circumstances warrant such action.

2.33 VARIATIONS

Where prices are submitted by the Contractor or Nominated Sub-Contractor during the progress of the works in respect of variations or regarding a claim under the terms of the contract and even though such prices may

SPECIAL NOTES TO TENDERERS

be used in an interim certificate, it is hereby agreed that there is to be no presumption of acceptance. Should the Employer wish to accept any such prices before the issue of the final certificate, he will do so in writing.

2.34 PROVISIONAL WORK

Any increase or decrease of work measured provisionally will not be sufficient grounds for any adjustments in the tendered rates.

2.35 MONEY/BUDGET OR PROVISIONS

Whatever an amount for work is allowed in these Bills of Quantities under the term "Money/budgetary Provision" it shall be taken that such amount is for work to be carried out by Specialists, who will be ordinary domestic Sub-Contractors to the Main Contractor.

2.36 BORROW PITS

It is the responsibility of the Contractor to find the necessary borrow pits for imported filling and also to ascertain the suitability and acceptability of such filling, as no claims in this regard will be entertained afterward.

2.37 TESTS

It is the responsibility of the Contractor to carry out his/her tests during the execution of the contract to check the strength of concrete, mortar, the density of filling, etc., and only those tests as requested by the Employer will be paid for by the Client.

2.38 THE CONTRACT PERIOD

The contract period shall be 24 months (exclusive of builder's holiday) from the date of site handover.

2.39 COMPLETION OF BID DOCUMENTS

Bidders shall ensure that all documents requiring completion are duly completed in ink (black), signed, and witnessed in the spaces provided.

2.40 OCCUPATIONAL HEALTH AND SAFETY

2.40.1 General

In terms of the Occupational Health and Safety Regulations promulgated on 18 July 2003, Bidders are advised that they are required to comply fully with such regulations about this project as no claims in this regard will be entertained.

2.40.2 Covid-19 Related Requirements

- Contactor must have risk assessments and plans in place.
- Procedure on how to conduct worker education on Covid-19.
- Identification and protection of Vulnerable Employees (e.g. workers above 60 years)
- Safe transport of employees.

SPECIAL NOTES TO TENDERERS

- Screening of employees on entering workplace.
- Prevention of viral spread in the workplace.
- Provision of hand sanitisers and face masks.
- Cleaning of surfaces and shared Equipment's.
- Shift arrangements.
- Managing sick employees.
- Monitoring systems must be in place to ensure compliance with safety protocols.
- Contactor provide a Bi-Weekly confirmation of the status of each employee on site.

2.41 VALUE ADDED TAX

Value-added tax must be added to the contract amount in the Final Summary and all amounts, rates, etc. in the Bills of Quantities will, therefore, be exclusive of value-added tax.

2.42 PRICES ALL INCLUSIVE

The Bidder must allow in his/her BID for all labour, material, transport, handling, construction plant, temporary works, or method of constructions where the method of payment allows for various methods of construction, value-added tax and everything else necessary for the execution and completion of the works in accordance with the BID documents.

2.43 PROOF OF PAYMENT OF VALUE ADDED TAX OR ANY APPLICABLE IMPORT DUTY

The Bidder is to provide proof that he/she and all his Sub-Contractors are registered at the Receiver of Revenue for VAT or any applicable import duty purposes and will submit all names of Sub-Contractors to the Employer. The Employer may submit all this information to the Receiver of Revenue.

2.44 WORKMEN'S COMPENSATION

The Contractor must provide valid proof of active registration with the workmen's compensation fund (COIDA).

2.45 CONTRACT PRICE ADJUSTMENT

The BID will be subject to Escalation and the base month will be based on the date of tender closing.

2.46 GENERAL NOTES

Should the tender be awarded to the successful tenderer, the following is to be noted:

- No works shall commence until the Health and Safety Plan has been issued by the successful tenderer and has been approved by the Department of Public Works, Roads and Infrastructure representative.
- No work shall commence on site until all CAR and PL insurances are in place
- No payment shall be made until all guarantees are in place.
- Workers employed by the Contractor will not be allowed to be seen lingering around existing facilities or disturbing classes.
- The Contractor must not render any construction activities that will affect the Client operation before informing the Employer for approval thereof.

SPECIAL NOTES TO TENDERERS

- The Contractor's workers should be noticeable by wearing proper clothing with the company logo.

2.47 PAYMENT PROCEDURE

Payment procedure in terms of this contract shall be as follows:

- The Contractor to submit valuation by the 20th of the Month.
- The payment shall be issued to the Department of Education by the 7th of the following month, with payment being made by the 30th of that month.
- Every effort will be made to achieve payments earlier, but this cannot be guaranteed.
- Interest on late payments shall be charged at the prime rate.
- Payment for unfixed materials (Material on site) on-site shall be allowed.
- Payment for materials off-site shall only be allowed subject to written approval by the Employer, which will only be conditional upon the necessary sessions being in place and any other documentation which the Employer requests.

2.48 INFORMATION RELEVANT TO INSURANCES

The Contractor will be expected to take the following insurance with a deductible to be determined by the Contractor. In addition to the above-mentioned, the Contractor should take any other insurances relevant to the proper execution of the works.

2.49.1 CONTRACT WORKS

– Estimated Contract Amount plus 20%

2.49.2 PUBLIC LIABILITY

– R 10 000 000.00



PART T1: TENDERING PROCEDURE

T1.1 TENDER NOTICE AND INVITATION TO TENDER

The Limpopo Department of Public Works, Roads and Infrastructure invites tenders for the construction of 4 x 4 classroom block, medium administration block, Grade R classroom block, 32 seat water borne toilets, water reticulation, borehole drilling, 6 x 10kl + 5kl elevated tanks, sewer reticulation, septic tank, storm water drainage, paving, carports and fencing at David Scara Kutumela Primary School.

It is estimated that tenderers should have a CIDB **class grading of 7GB or higher**.

Only tenderers who meet the minimum requirements stated in the tender data are eligible to submit tenders.

A non-refundable tender deposit of **as per Tender Advert** payable in cash is required on collection of the tender documents.

Administrative queries relating to the issue of these documents may be addressed in writing to **Ms Moloto V**, **Tel. No.015 284 7142**; email: molotomv@dpw.limpopo.gov.za.

Technical queries relating to the issue of these documents may be addressed in writing to **Mr P. Makape**, **Tel. No. 082 460 6271**; email: makapep@dpw.limpopo.gov.za.

A compulsory briefing meeting with representatives of the Employer will not take place due to the Covid-19 Lockdown restrictions. However, tenderers are welcomed to make arrangements to visit the site on a non-compulsory basis at Matsoabane Primary School.

The closing date and time for receipt of tenders are **as per Tender Advert**.

Telegraphic, telephonic, scanned documents, facsimile, e-mail, and late tenders will not be accepted.

Tenders must only be submitted on the tender documentation that is issued including priced bills of quantities.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tenders Data.

It remains the responsibility of the bidders that the bid document reaches the tender box by the stipulated closing date and time as advertised on the tender bulletin.

T1.2TENDER DATA



T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (July 2015) as published in Government Gazette No 38960, Board Notice 136 of 10 July 2015. (See www.cidb.org.za).

The Standard Conditions of Tender make several preferences 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.

Clause number	Tender Data
F.1.1	The Employer is the Limpopo Department of Public Works, Roads and Infrastructure

T1.2TENDER DATA

F.1.2	<p>For this contract, the following documents will be adopted:</p> <p>The single-volume procurement document issued by the employer comprises of the following:</p> <p>Part A1: Special Notes to Bidders</p> <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 PartC1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data</p> <p>The Contract PartC3: Pricing data C3.1 Pricing instructions</p> <p>The Contract PartC4: Provisional Bills of Quantities C4.1 Preliminaries C4.2 Building Works C4.3 Civil Works C4.5 Electrical Installation</p> <p>Part 5: Scope of work C5.1 Scope of work</p> <p>Part 6: EPWP Infrastructure Guideline 2015 C6.1 Data Collection Tool</p> <p>Part 7: Site information and drawings C7.1 Site information C7.2 Drawings</p>
F.1.3	<p>The employer's representative is:</p> <p>Name :Makape P. Address : Department of Public Works, Roads and Infrastructure. Works Towers, 43 Church Street. Tel :082 460 6271 Email: makapep@dpw.limpopo.gov.za</p>
F.1.4	<p>The language for communications is English</p>
F.2.1	<p>Only those Bidders who satisfy the following eligibility criteria are eligible to submit tenders:</p> <ol style="list-style-type: none"> 1. The Bidder is a Firm. 2. Bidders that satisfy the criteria stated in the tender data and the tenderer or any of his principles is not under any restriction to do business with the employer.
F.2.2	<p>Compulsory site briefing</p> <p>A compulsory site briefing meeting with representatives of the Employer will not take place due to the Covid-19 Lockdown restrictions. However, tenderers are welcomed to make arrangements to visit the site on a non-compulsory basis at the David Scara Primary School, in Modimolle.</p>

T1.2TENDER DATA

F.2.3	Tenderers may request clarification of the tender documents by notifying the employer at least five (5) working days before the closing time and date stated in the Tender Advert.
F.2.4	No alternative tender offers will be considered.
F.2.5	The list of Returnable Documents identifies which of the documents a tenderer must complete when submitting a tender offer. The tenderer must submit his tender offer by completing the Returnable Documents, signing the "Offer" section in the "Form of Offer and Acceptance" and delivering the Returnable Documents back to the Department.
F.2.6	Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as consortiums shall state which of the signatories the lead is partner whom; the employer shall hold liable for the tender offer.
F.2.7	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:
F.2.8	<p>Location of the tender box: Department of Public Works, Roads and Infrastructure,</p> <p>Physical Address: Corner River and Blaauwberg streets, Ladanna, 0699.</p> <p>Identification details: Tender reference number, Title of Tender and the closing date and time of the tender.</p>
F.2.9	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
F.2.10	Tenderers are alerted that tender offers which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as non-responsive.
F.2.11	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
F.2.12	The tender offer validity period is 180 Days.
F.3.1	Tenders will not be opened immediately after the closing time for tenders.
F.3.2	<p>The tenderers will be evaluated in four stages</p> <ul style="list-style-type: none"> (i) Compliance documents – refer to the list of returnable documents (Part T2) (ii) Local Content (SBD 6.2) (iii) Functionality (iv) Price and Preference (BBBEE)

T1.2TENDER DATA

F.3.3	<p>Scoring Financial Offer:</p> <p>Tender offers will be scored using the following formula: $NFO = \left(\frac{Pm}{P} \right) \times 100$</p> <p>Where</p> <p>NFO = number of tender evaluation points awarded for the financial offer.</p> <p>W1 = the percentage score given for financial offer as stated in the Notice and Invitation to Tender T1.1</p> <p>Pm = the comparative offer of the most favourable tender offer. P = the comparative offer of the tender offer under consideration.</p> <p>where</p> <p>W1 = the number of tender evaluation points for the financial offer and equals:</p> <ol style="list-style-type: none"> 1) 90 where the financial value inclusive of VAT of all responsive tenders received has a value above R 50 000 000; or 2) 80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R 50 000 000. <p>Scoring Preferences:</p> <p>Up to 20 points will be awarded to the tenderer who completes the referencing schedule and who is found to be eligible for the preference claimed</p>
	<p><i>The Department is not obliged to award the tender to the bidder with the highest number of tender points.</i></p>

TENDER EVALUATION CRITERIA AND WEIGHTINGS

NOTES TO BIDDERS

1.1 CRITERIA USED FOR THE EVALUATION/ ADJUCATION OF INFRASTRUCTURE RELATED BIDS

1.1.1 The points are allocated as follows:

1.1.2 For projects above R500 000, the distribution of points is used as follows:

A. BID EVALUATION STAGE 2- LOCAL CONTENT (SBD 6.2)

1.2 A bid will be disqualified if the Local Content Declaration Certificate and the Annexure C (Local Content Declaration: Summary Schedule) are not submitted or fully completed and signed as part of the bid documentation.

1.3 This tender is subject to Regulation 8 “Local Production and Content” of the Preferential Procurement Policy Framework Act, 2017: Preferential Procurement Regulations, 2017 submitting of SBD 6.2 and its declarations is compulsory. Please note a minimum threshold of for local content and production in relation to this bid (refer to the list of Designated Items for Local Production and Content)

1.3.1 Evaluation in terms of the stipulated minimum threshold for local production and content. LDPWRI-B/20102 will be evaluated in terms of minimum thresholds for local content stipulated in the LDPWRI-B/20102 document. The declaration made by the BIDDER in the Declaration Certificate for Local Content and Annex C (Local Content Declaration: Summary Schedule) will be used for this purpose.

1.3.2 All responses that will not meet the required minimum threshold “Annexure 1 (SBD 6.2)” for local content as stipulated in the specifications will be disqualified and not evaluated further. Only Bidders that achieved the minimum threshold for local content and production will be evaluated further in terms of functionality and preference point system prescribed in the Preferential Procurement Regulations, 2017.

1.3.3 All Declarations for Local Content and Production must be fully completed and signed.

N.B Bidders will need to meet a minimum threshold percentage for local production and content as stipulated in the Bid Document (refer to the list of Designated Items for Local Production and Content) to be further evaluated in terms of the 80/20 preference point system prescribed in the Preferential Procurement Policy Framework Act, 5/2000 and preferential procurement regulations of 2017.

1.2.4 The exchange rate to be used for the calculation of Local Production and Content must be the exchange rate published by the South African Reserve Bank (SARB) during the advertisement period of this **LDPWRI-B/20102**.

TENDER EVALUATION CRITERIA AND WEIGHTINGS

1.2.5 Only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 will be used to calculate local content.

2.6 The Local Content (LC) expressed, as a percentage of the bid price will be calculated in accordance with the following formula:

$$LC = (1 - x/y) * 100$$

Where

X is the imported content in Rand

Y is the quotation price in Rand excluding value added tax (VAT)

1. The exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) at 11:00 on Friday, 21 February 2020.
2. Only the South African Bureau of Standards (SANS) approved technical specification number SATS 1286:2011 must be used to calculate local content.

TENDER EVALUATION CRITERIA AND WEIGHTINGS

A. BID EVALUATION STAGE 3 - FUNCTIONALITY

NOTE: Functionality -A bidder must obtain a minimum of 70%underfunctionality to qualify for final evaluation.

Functionality	Weighting
<p>Current Workload of Bidder</p> <ul style="list-style-type: none"> Current value is equal or greater than twice the maximum value of the required CIDB grade = 0 Current value is greater than the maximum value of the required CIDB grade but less than twice the maximum value of the required CIDB grade = 5 Current value is within the required CIDB threshold = 10 Current value is less than the minimum value of the required CIDB grade = 15 <p>Current value refers to current value of projects for both General Building (GB) and Civil Engineering (CE). Please list the current projects which your company is busy executing in Table 1.</p> <p>NB: Completion of this table is mandatory for points to be allocated. Do not refer to any attachment. If no projects at the moment the tender must indicate on this table. Appointment letters must be attached for current projects.</p> <p>Misrepresentation of facts will render your bid non-responsive.</p>	15

TENDER EVALUATION CRITERIA AND WEIGHTINGS**Table 1 List of current projects executed by the bidder**

1. Do you have the current projects being executed Yes/No?
2. If Yes, please indicate the details on the table below. Please note that it is compulsory to answer the question and if the answer is yes, complete the table. If the question is not answered or the table is not completed the points will not be allocated.

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

TENDER EVALUATION CRITERIA AND WEIGHTINGS

<p>Profile of key staff (the key staff must be linked to project-specific organogram). Organogram, CVs, certified copies of professional registration and certified copies of qualifications must be attached for points to be allocated.</p> <p>NB: List the details of key staff in Table 2. Completion of this table is mandatory for points to be allocated.</p>	<p>Weighting</p>
<p>Project Supervisor/Site Agent</p> <p>Qualification</p> <ul style="list-style-type: none"> Registration as professional engineer, technologist, architect, construction manager or quantity surveyor = 5 Degree in built environment = 3 National Diploma in Built environment = 1 <p>Relevant experience in general building projects</p> <ul style="list-style-type: none"> More than 5 years' experience = 5 Between 2 and 5 years' experience = 3 Less than 2 years = 1 <p>Construction Manager</p> <p>Qualification</p> <ul style="list-style-type: none"> Registration as professional engineer, technologist, architect, construction manager or quantity surveyor = 5 Degree in built environment = 3 National Diploma in Built environment = 1 <p>Relevant experience in general building projects</p> <ul style="list-style-type: none"> More than 5 years' experience = 5 Between 2 and 5 years' experience = 3 Less than 2 years = 1 <p>Site Safety Officer</p> <ul style="list-style-type: none"> Registration with the South African Council for Project and Construction Management Professions (SACPCMP) as a Construction Health and Safety Officer / Construction Health and Safety Manager= 5 Degree in built environment = 3 National Diploma in Built environment=1 <p>Relevant experience in general building projects</p> <ul style="list-style-type: none"> More than 5 years' experience = 5 Between 2 and 5 years' experience = 3 Less than 2 years = 1 	<p>30</p>

TENDER EVALUATION CRITERIA AND WEIGHTINGS

Table 2 Details of key staff.

Name	Position	Qualifications	Professional Registration (if any)	Experience: Number of year(s)	Indicate whether full time or part- time on this project

TENDER EVALUATION CRITERIA AND WEIGHTINGS

Experience in similar projects in the last 10 years	Weighting
<p>Number of projects completed within CIDB grade 7 GB or higher. The grading applies at the time of award of the project.</p> <p>Completed Projects must be classified as General Building (GB) works in terms of CIDB for points to be allocated.</p> <ul style="list-style-type: none"> · Completed 5 or more projects = 25 · Completed 4 projects = 20 · Completed 3 projects = 15 · Completed 2 projects = 10 · Completed 1 project = 5 · Bidder submitted no project in CIDB grade 7 GB or higher= 0 <p>NB: The details of completed projects must be entered in Table 3. Completion of this table is mandatory for points to be allocated. Appointment letters and completion certificates must be attached for points to be allocated. All attachments to be on appropriate letterhead and signed off by the client.</p>	25

[illegible]

TENDER EVALUATION CRITERIA AND WEIGHTINGS

Proposal and methodology	Weighting
<p>· Project Proposal/Method Statement</p> <p>The Bidder does not cover any aspect of the scope of work or no information submitted/attached = 0</p> <p>The bidder does not deal with the critical aspects of the project associated with the scope of work =5</p> <p>The bidder addresses the scope of work, provides a methodology to deal with the critical aspects of the project associated with the works =10</p> <p>· Project Schedule/programme (acceptable scheduling software)</p> <p>Programme not submitted =0</p> <p>Programme not aligned to Bill of Quantities (BOQ) = 2</p> <p>Programme is aligned to the Bill of Quantities (BOQ) =5</p> <p>· Cashflow projections</p> <p>Cashflow not submitted =0</p> <p>The cash flow projections not aligned to the programme and BOQ=2</p> <p>The cash flow projections, programme and BOQ are aligned=5</p>	20

TENDER EVALUATION CRITERIA AND WEIGHTINGS

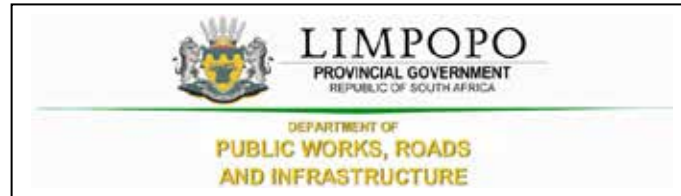
Safety, Health and Environmental Plan (SHEQ)	Weighting
<p>The Bidder does not cover any aspect of the scope of work or no information submitted/attached =0</p> <p>The bidder does not address safety and health issues related to the works – i.e. there is no cognisance to the safety of the learners, teachers and workers and the impact of their work on the environment=5</p> <p>The safety, health and environment approach provided deals with the critical aspects of the project. Cognisance is taken dealing with safety of the workers, learners and teachers when conducting their works such as barricading of the area, conducting safety talk with the affected parties=10</p>	10
Total	100
<p>NB: To qualify for final evaluation the bidder must obtain a minimum score of 70% on functionality</p>	

NB: ADDITIONAL EVALUATION CRITERIA

1. This project forms part of the Twenty-Five (25) schools programme (See table below)
2. Should one bidder score high points on more than three (3) projects, Bidders will be required to meet the minimum requirements as listed below to qualify for additional appointment:
 - 2.1 Bidder should have a minimum functionality score of 90 points.
 - 2.2 Bidder should have one CIDB grading level above the highest appointed level required grading.
3. The department reserves the right to negotiate prices in accordance with regulation **6 (80/20 preference point system for acquisition of goods or services for Rand value equal to or above R30 000 and up to R50 million)** and/or **7 (90/10 preference point system for acquisition of goods or services with Rand value above R50 million)** of the Preferential Procurement Regulations of 2017.
4. Furthermore, the Department “LDPWR&I” is not obliged to award the tender to the bidder with the highest number of tender points.

Item No	Name of school	LDPW Contract Number
1	Diphuti Primary	LDPWRI-20091
2	Kgarahara Secondary	LDPWRI-20096
3	Masikhwa Primary	LDPWRI-20092
4	Napsadi Secondary	LDPWRI-20093
5	Ngwana Makhutswe Secondary	LDPWRI-20094
6	Rasema Secondary	LDPWRI-20115
7	Seale Secondary	LDPWRI-20095
8	Mmaphuti Manamela Secondary (New Site)	LDPWRI-B/20100
9	David Scara Kutumela Primary (Modimolle RDP Settlement)	LDPWRI-B/20102
10	Matsobane Primary	LDPWRI-B/20103
11	Rakgoatha Primary	LDPWRI-B/20099
12	Dikoloi Secondary	LDPWRI-B/20097
13	Matsibe Secondary	LDPWRI-B/20101
14	Sekete Secondary	LDPWRI-B/20104
15	Suswe Primary	LDPWRI-B/2098
16	Matsuokwane Secondary	LDPWRI-B/20106

17	Rebone Secondary	LDPWRI-B/20105
18	Dikgalaopeng Secondary	LDPWRI-B/20107
19	Seboeng Primary (New Site)	LDPWRI-B/20108
20	St. Paul Secondary	LDPWRI-B/20109
21	Chameti Secondary	LDPWRI-B/20110
22	Mphakani Primary	LDPWRI-B/20112
23	Ramatimana Primary School	LDPWRI-B/20111
24	Sehonwe Primary	LDPWRI-B/20114
25	Vutivi Primary (New Site)	LDPWRI-B/20113



PART T2: RETURNABLE DOCUMENTS



T2.1: LIST OF RETURNABLE DOCUMENTS

BID EVALUATION STAGE 1- MANDATORY REQUIREMENTS

1. The following returnable documents and mandatory requirements are compulsory, failure to comply will be considered non-responsive, and the bid will not be evaluated any further. All returnable documents are incorporated into the bid documents.
 - SBD1: Invitation to Bid (fully completed and signed)
 - Submit a power of attorney/Certificate of Authority (fully completed and signed)
 - Record of Addenda (where applicable)
 - SBD 4: Declaration of Interest
 - SBD 6.1: Reference Points claim form in terms of the Preferential Procurement Regulations 2017 or amended.
 - SBD 6.2 Declaration Certificate for Local Production and Content
 - SBD 8: Declaration of the bidder's past SCM practices
 - SBD 9: Certificate of Bid determination
 - Declaration of Subcontracting Arrangements
 - C1.1: Form of the offer (PART C1)
 - Joint venture certificate (where applicable)
 - Bidding entity must not have any of their directors/shareholders listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
 - Bidding entity must not appear on the National Treasury's list of blacklisted entities
 - Completion of the Bid Document must be done with a non-erasable black pen
 - Submission of fully completed original tender document
2. The following returnable documents are **required for tender evaluation purposes**.
 - Curriculum Vitae of all key staff allocated to this project, indicating their experience and qualifications and professional registration with various councils.
 - Certified copies (not older than 6 months from the date of certifying) of all qualifications, professional registrations, and training.
 - Letters of completion for previous or current work on appropriate letterhead and signed off by the client must be attached. The letters must detail the scope of work undertaken, project value is undertaken, date of award and completion, and the location where work was carried out.
 - Proof of ownership of the plant or confirmation of rental agreement thereof.
 - Methodology documentation, detailing the bidder's approach to executing the scope of works, risk, and environmental impact.
 - Proof of Contractor Registration issued by the Construction Industry Development Board - Compulsory.
 - Signed Preferencing Schedule, including submitting the supporting documents
 - Ø B-BBEE Verification Certificates issued by a verification agency accredited by the South African National Accreditation System "SANAS" (In the case of a consortium and Joint venture, a Joint BBBEE certificate is required, but where sub-contracting only the BBBEE of the bidding entity is required). Or in the case of an Exempted Micro Enterprise or a Qualifying Small Enterprise, if permitted in terms of the relevant code,
 - Ø A duly completed and valid affidavit on the relevant form obtained from the DTI website (https://www.thedti.gov.za/economic_empowerment/bee_codes.jsp). Failure to submit these documents will result in no points allocated.

PART T2: RETURNABLE DOCUMENTS

- Copy of COIDA (Compensation for Occupational Injuries and Diseases) registration certificate, e.g. Letter of Good Standing
- A valid Tax Clearance, unique security Personal Identification Number(PIN) issued by the South African Revenue Services (where Consortium / Joint Venture / Sub- contractors / Sub-consultants are involved, each party to the association must submit a separate Valid Tax Clearance unique security personal Identification number)
- Certified copy of directors' identity documents not older than six months. No copy of a certified copy will be accepted.
- Joint Venture or Consortium submissions are eligible, Joint Venture Agreement must be notarized by the commissioner of oath.
- Submission of fully Completed and Priced Bill of Quantities

KINDLY NOTE THAT FAILURE TO SUBMIT AND OR COMPLETE THE REQUIRED DOCUMENTATION (AS PER MANDATORY REQUIREMENTS INCLUDING COMPLETION OF SBD 1, 4, 6.1, 6.2, 8 and 9) WITH THE TENDER WILL RESULT IN YOUR TENDER BEING REJECTED WITHOUT FURTHER CONSIDERATION.

PART T2: RETURNABLE DOCUMENTS

T2.2: RETURNABLE SCHEDULE

Bidders shall indicate whether the list of returnables has been submitted together with the following completed documents or attachments (by indicating Yes or No)		Complaint	
1.	SBD 1: Invitation to Bid	Yes	No
2.	Certificate of Authority	Yes	No
3.	Record of Addenda to the tender	Yes	No
4.	Compulsory Declaration	Yes	No
5.	Preferencing schedule: Broad-based Black Economic Empowerment status	Yes	No
6.	Proposed amendments and qualifications (if applicable)	Yes	No
7.	SBD 4: Declaration of Interest	Yes	No
8.	SBD 6.1: Reference Points claim form in terms of the Preferential Procurement Regulations 2017 or amended	Yes	No
9.	SBD 6.2 Declaration Certificate for Local Production and Content	Yes	No
10.	SBD 8: Declaration of the bidder's past SCM practices	Yes	No
11.	SBD 9: Certificate of Bid determination	Yes	No
12.	Declaration of Subcontracting Arrangements	Yes	No
13.	Form of offer	Yes	No
14.	CSD (Summary)	Yes	No
15.	COIDA	Yes	No
16.	Valid tax clearance or tax pin	Yes	No
17.	Certified copy of Contractor Registration for Incorporation or of Company Registration Document	Yes	No
18.	Joint venture certificate (where applicable)	Yes	No
19.	B-BBEE Verification Certificates issued by a verification agency accredited by the South African National Accreditation System (SANAS)	Yes	No
20.	Certified copies of Qualifications, Professional registration, and Training for Key persons	Yes	No
21.	Methodology/Method statement	Yes	No
22.	Certificates or letters of completed or current similar projects, with Contactable references and on the Client's letterhead	Yes	No
23.	Certified copy of directors' identity documents	Yes	No
24.	Minimum CIDB class grading: 7GB or higher (CIDB Certificate)	Yes	No
25.	Preliminary Programme/schedule and cash flow	Yes	No
26.	Safety, Health and Environmental Plan (SHEQ)	Yes	No

SBD1: INVITATION TO BID

PART A

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)					
BID NUMBER:		CLOSING DATE:		CLOSING TIME:	
DESCRIPTION					
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No	
IF YES, WHO WAS THE CERTIFICATE ISSUED BY?					
AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) AND NAME THE APPLICABLE IN THE TICK BOX	<input type="checkbox"/>	AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)			
	<input type="checkbox"/>	A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS)			
	<input type="checkbox"/>	A REGISTERED AUDITOR			
		NAME:			
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/SWORN AFFIDAVIT (FOR EMEs& QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					

PART T2: RETURNABLE DOCUMENTS

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ANSWER PART B:3 BELOW]
SIGNATURE OF BIDDER	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED (Attach proof of authority to sign this bid; e.g. resolution of directors, etc.)			
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE (ALL INCLUSIVE)	
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT/ PUBLIC ENTITY	LDPWR&I	CONTACT PERSON	Mr. P. Makape
CONTACT PERSON	Ms Moloto V.	TELEPHONE NUMBER	082 460 6271
TELEPHONE NUMBER	015 284 7142	FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	makapep@dpw.limpopo.gov.za
E-MAIL ADDRESS	molotomv@dpw.limpopo.gov.za		

PART T2: RETURNABLE DOCUMENTS**PART B: TERMS AND CONDITIONS FOR BIDDING**

1. BID SUBMISSION:	
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.	
1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED- (NOT TO BE RE-TYPED) OR ONLINE	
1.3. BIDDERS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.	
1.4. WHERE A BIDDER IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY NOT BE SUBMITTED WITH THE BID DOCUMENTATION. B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.	
1.5. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER LEGISLATION OR SPECIAL CONDITIONS OF CONTRACT.	
2. TAX COMPLIANCE REQUIREMENTS	
2.1 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 VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.	
2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.	
2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.	
2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE PROOF OF TCS / PIN / CSD NUMBER.	
2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.	
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS	
3.1. IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.2. DOES THE BIDDER HAVE A BRANCH IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.3. DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3.4. DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA?	<input type="checkbox"/> YES <input type="checkbox"/> NO
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN, IT IS NOT A REQUIREMENT TO OBTAIN A TAX COMPLIANCE STATUS / TAX COMPLIANCE SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.	

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

CERTIFICATE OF AUTHORITY

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for the relevant category.

A Company	B Partnership	C Joint Venture	D Sole Proprietor	E Close Corporation

A. CERTIFICATE FOR COMPANY

I,....., chairperson of the board of directors of hereby confirm that by resolution of the board (copy attached) taken on20..., Mr/Mrs.....acting in the capacity of.....,was authorized to sign all documents in connection with this tender and any contract resulting from it on behalf of the company.

As witness

1.....
Chairperson
2.....
Date

B. CERTIFICATE OF PARTNERSHIP

We, the undersigned, being the key partners in the business trading as

hereby authorize Mr/Mrs....., acting in the capacity of.....to sign all documents in connection with the tender for Contract.....and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

NOTE: This certificate is to be completed and signed by all the key partners upon whom rests the direction of the affairs of the Partnership as a whole.

C. CERTIFICATE FOR JOINT VENTURE

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

This authorization is evidenced by the attached power of attorney signed by legally authorized signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE, NAME & CAPACITY

D. CERTIFICATE FOR THE SOLE PROPRIETOR

I,, hereby confirm that I am the sole owner of the business trading as.....

As Witness:

1.....
Signature: Sole owner

2.....
Date

E. CERTIFICATE FOR CLOSE CORPORATION

We, the undersigned, being the key members in the business trading as.....hereby authorise Mr/Mrs.....acting in the capacity of....., to sign all documents in connection with the tender for Contract.....and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

PART T2: RETURNABLE DOCUMENTS

NOTE: This certificate is to be completed and signed by all the key members upon whom rests the direction of the affairs of the Close Corporation as a whole

Record of Addenda to tender documents

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

Attach additional pages if more space is required.

Signed Date

Name Position

Tenderer

Compulsory Declaration

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

Section 1: Enterprise Details

Name of enterprise:	
Contact person:	
Email:	
Telephone:	
Cell no	
Fax:	
Physical address	
Postal address	

Section 2: Particulars of companies and close corporations

Company / Close Corporation registration number	
--	--

Section 3: SARS Information

Tax reference number	
VAT registration number:	<i>State Not Registered if not registered for VAT</i>

Section 4: CIDB registration number

Section 5: National Treasury Central Supplier Database

Supplier number	
Unique registration reference number	

Section 6: Particulars of principals

principal: means a natural person who is a partner in a partnership, a sole proprietor, a director of a company established in terms of the Companies Act of 2008 (Act No. 71 of 2008) or a member of a close corporation registered in terms of the Close Corporation Act, 1984, (Act No. 69 of 1984).

Full name of the principal	Identity number	Personal tax reference number

Attach a separate page if necessary

PART T2: RETURNABLE DOCUMENTS

Section 7: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any principal is currently or has been within the last 12 months in the service of any of the following:

- | | |
|--|--|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act of 1999 (Act No. 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> an official of any municipality or municipal entity | <input type="checkbox"/> an employee of Parliament or a provincial legislature |

If any of the above boxes are marked, disclose the following:

Name of principal	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within the last 12 months

*insert separate page if necessary

Section 8: Record of a family member in the service of the state

family member: a person's spouse, whether in a marriage or in a customary union according to indigenous law, a domestic partner in a civil union, or child, parent, brother, sister, whether such a relationship results from birth, marriage or adoption

Indicate by marking the relevant boxes with a cross, if any family member of a principal as defined in section 5 is currently or has been within the last 12 months been in the service of any of the following:

- | | |
|--|---|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> an official of any municipality or municipal entity | <input type="checkbox"/> an employee of Parliament or a provincial legislature |

Name of a family member	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within the last 12 months

*insert separate page if necessary

PART T2: RETURNABLE DOCUMENTS

Section 9: Record of termination of previous contracts with an organ of state

Was any contract between the tendering entities including any of its joint venture partners terminated during the past 5 years for reasons other than the employer no longer requiring such works or the employer fails to make payment in terms of the contract.

ÿ Yes ÿ No (Tick appropriate box)

If yes, provide particulars (interest separate page if necessary)

Section 10: Declaration

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the tendering entity confirms that the contents of this Declaration are within my knowledge, and save where stated otherwise in an attachment hereto, are to the best of my belief both true and correct, and:

- i) neither the name of the tendering entity or any of its principals appears on:
 - a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004 (Act No. 12 of 2004)
 - b) National Treasury's Database of Restricted Suppliers (see www.treasury.gov.za)
- ii) neither the tendering entity or any of its principals has within the last five years been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa);
- iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration);
- iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers
- v) has not engaged in any prohibited restrictive horizontal practices including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of the contract, etc.) or intention to not win a tender;
- vi) has no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- vii) neither the tenderer or any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity and are not in arrears for more than 3 months;
- viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into more than the threshold prescribed by the National Treasury, for SARS to do likewise.

Signed

Date

Name

Position

Enterprise

.....

PART T2: RETURNABLE DOCUMENTS

- NOTE 2: Section 30(1) of the Public Service Act, 1994, prohibits an employee (person who is employed in posts on the establishment of departments) from performing or engaging remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department. When in operation, Section 8(2) of the Public Administration Management Act, 2014, will prohibit an employee of the public administration (i.e. organs of state and all national departments, national government components listed in Part A of Schedule 3 to the Public Service Act, provincial departments including the office of the premier listed in Schedule 1 of the Public Service Act and provincial departments listed in schedule 2 of the Public Service Act, and provincial government components listed in Part B of Schedule 3 of the Public Service Act) or persons contracted to executive authorities in accordance with the provisions of section 12A of the Public Service Act of 1994 or persons performing similar functions in organs of state from conducting business with the State or to be a director of a public or private company conducting business with the State. The offense for doing so is a fine or imprisonment for a period not exceeding 5 years or both. It is also serious misconduct which may result in the termination of employment by the employer.
- NOTE 3: Regulation 44 of Supply Chain Management regulations issued in terms of the Municipal Finance Management Act of 2003 requires that organs of state and municipal entities not award a contract to a person who is the service of the state, a director, manager or principal shareholder in the service of the state or who has been in the service of the state in the previous twelve months.
- NOTE 4: Regulation 45 of Supply Chain Management regulations requires a municipality or municipal entity to disclose in the notes to the particulars of the annual statement of any award made to a close family member in the service of the state.
- NOTE 5: Corrupt activities which give rise to an offense in terms of the Prevention and Combating of Corrupt Activities Act of 2004) include improperly influencing in any way the procurement of any contract, the fixing of the price, consideration or other amounts of money stipulated or otherwise provided for in any contract and the manipulating by any means of the award of a tender.
- NOTE 6: Section 4 of the Competition Act of 1998 prohibits restrictive horizontal practice including agreements between parties in a horizontal relationship that have the effect of substantially preventing or lessening competition, directly or indirectly fixing prices or dividing markets or constitute collusive tendering. Section 5 also prohibits restrictive vertical practices. Any restrictive practices that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties.

F. BROAD-BASED BLACK ECONOMIC EMPOWERMENT

Preferencing schedule: Broad-Based Black Economic Empowerment Status

Preamble

Section 10(b) of the Broad-Based Black Economic Empowerment Act of 2003 (Act No. 53 of 2003) states that “Every organ of state and the public entity must take into account and, as far as is reasonably possible, apply any **relevant code of good practice** issued in terms of this Act in developing and implementing a preferential procurement policy.”

A number of codes of good practice have been issued in terms of Section 9(1) of the B-BBEE Act of 2003, including a generic code of good practice and various sector codes. The sector codes vary the metrics, weightings, and targets used in the generic code of good practice to establish the overall performance of an entity and its B-BBEE status. The B-BBEE status needs to be assessed in accordance with the applicable code.

1 Conditions associated with the granting of preferences

Tenderers who claim a preference shall provide proof of B-BBEE status level of contributor in accordance with the requirements of section 2 in respect of the applicable code as at the closing time for submissions, failing which their claims for preferences will be rejected.

1 Proof of B-BBEE status level of contributor

Proof of B-BBEE status level of contributor shall be by means of

- the B-BBEE status level certificate issued by an authorized body or person;
- an affidavit as prescribed by the B-BBEE Codes of Good Practice; or
- any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act

2 Tender preferences claimed

The scoring shall be as follows:

B-BBEE status level of contributor	Status level of a tenderer (tick relevant level)	Number of preference points	
		90/10 preference points system	80/20 preference points system
Form not completed or non-complaint contributor		0	0
Level 8 contributor		1	2
Level 7 contributor		2	4
Level 6 contributor		3	6
Level 5 contributor		4	8
Level 4 contributor		5	12
Level 3 contributor		6	14
Level 2 contributor		9	18
Level 1 contributor		10	20

4 Declaration

The tenderer declares that

- a) the tendering entity is a level contributor as stated in the submitted proof of B-BBEE status level of a contributor as at the closing date for submissions
- b) the tendering entity has been measured in terms of the following code (tick applicable box):

- ☐ Generic code of good practice

PART T2: RETURNABLE DOCUMENTS

☐ Construction Sector Code

☐ Other – specify

.....

c) the tendering entity confirms that it will only enter into a subcontract with the Employer's prior approval and is not permitted to subcontract more than 25% of the total of the prices of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor unless the contract is a subcontractor to an Exempted Micro Enterprises which has the capability to execute the contract.

d) the contents of the declarations made in terms of a) and b) above are within my knowledge and are to the best of my belief both true and correct

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the tenderer, confirms that he/she understands the conditions under which such preferences are granted and confirms that the tenderer satisfies the conditions about the granting of tender preferences.

Signature:

Name:

Duly authorized to sign on behalf of:

Telephone:

Fax: Date:

Name of witness: Signature of witness:

Note: 1) Failure to complete the declaration will lead to the rejection of a claim for preference.

2) Supporting documentation of the abovementioned claim for preference must be submitted with the tender submission to be eligible for a preference

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 cover letter to his tender and reference such a 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 4: DECLARATION OF INTEREST

SBD 4: DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). Because of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorized representative declare his/her position concerning the evaluating/adjudicating authority where-

- the bidder is employed by the state; and/or
- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. To give effect to the above, the following questionnaire must be completed and submitted with the bid.

2.1 Full Name of bidder or his or her representative:

2.2 Identity Number.....

2.3 The position occupied in the Company (director, trustee, shareholder², member):

.....

2.4 Registration number of company, enterprise, close corporation, partnership agreement or trust:

.....

2.5 Tax Reference Number:

2.6 VAT Registration Number:

2.6.1 The names of all directors/trustees/shareholders/members, their identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.

¹"State" means –

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

2.7 Are you or any person connected with the bidder? YES / NO
Presently employed by the state?

2.7.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:

Name of state institution at which you or the person
connected to the bidder is employed:

SBD 4: DECLARATION OF INTEREST

The position occupied in the state institution:

Any other particulars:
.....
.....
.....

2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? YES / NO

2.7.2.1 If yes, did you attach proof of such authority to the bid document? YES / NO

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:
.....
.....
.....

2.8 Did you or your spouse, or any of the company's directors / trustees/shareholders/members or their spouses conduct business with the state in the previous twelve months? YES / NO

2.8.1 If so, furnish particulars:
.....
.....
.....

2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid? YES / NO

2.9.1 If so, furnish particulars.
.....
.....
.....

2.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid? YES/NO

2.10.1 If so, furnish particulars.
.....
.....
.....

SBD 4: DECLARATION OF INTEREST

2.11Do you or any of the directors / trustees / shareholders / members
of the company have any interest in any other related companies
whether or not they are bidding for this contract?

YES/NO

2.11.1 If so, furnish particulars:

.....

.....

.....

3 Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number

4 DECLARATION

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT.
I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION
PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

SBD 6.1: REFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- 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

- a) The value of this bid is estimated to ~~exceed/not exceed~~ R50 000 000 (all applicable taxes included) and therefore the preference point system shall be applicable; or
- b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (*delete whichever is not applicable for this tender*).

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

1.4 The maximum points for this bid are allocated as follows:

	POINTS
PRICE	
B-BBEE STATUS LEVEL OF CONTRIBUTOR	
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

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

A maximum of 80 or 90 points is allocated for price on the following basis: **80/20 or 90/10**

$$P_s = 80 \frac{P_t - P_{\min}}{P_{\min}} \quad \text{or} \quad P_s = 90 \frac{P_t - P_{\min}}{P_{\min}}$$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{\min} = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

5. BID DECLARATION

- 5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 6.1 B-BBEE Status Level of Contributor: . =(maximum of 10 or 20 points)
(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

7. SUB-CONTRACTING

7.1 Will any portion of the contract be sub-contracted?

(**Tick applicable box**)

YES		NO	
-----	--	----	--

7.1.1 If yes, indicate:

i) What percentage of the contract will be subcontracted.....%

ii) The name of the sub-contractor.....

iii) The B-BBEE status level of the sub-contractor.....

iv) Whether the sub-contractor is an EME or QSE

(**Tick applicable box**)

YES		NO	
-----	--	----	--

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

ÿ Partnership/Joint Venture / Consortium

ÿ One person business/sole propriety

ÿ Close corporation

ÿ Company

ÿ (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

.....

8.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
 - ☐ Supplier
 - ☐ Professional service provider
 - ☐ Other service providers, e.g. transporter, etc.
- [TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we 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 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding 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 bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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.

WITNESSES

1.

2.

.....
SIGNATURE(S) OF BIDDERS(S)

DATE:

ADDRESS

.....

SBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2. Regulation Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two-stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = \left(1 - \frac{x}{y}\right) \times 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value-added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.dti.gov.za/industrial development/ip.jsp](http://www.dti.gov.za/industrial%20development/ip.jsp) at no cost.

1.6 A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows: (Refer to "Treasury Designated sector"- Page 64 to 66)

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
_____	_____ %
_____	_____ %
_____	_____ %

3. Does any portion of the services, works or goods offered have any imported content?

(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
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3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information are accessible on www.reservebank.co.za.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the DTI must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION

(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Institution):

.....

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <http://www.thedti.gov.za/industrialdevelopment/ip.jsp>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder entity),
the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

DATE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

GUIDANCE DOCUMENT FOR THE CALCULATION OF LOCAL CONTENT

1. DEFINITIONS

Unless explicitly provided in this guideline, the definitions given in SATS 1286:2011 apply.

2. GENERAL

2.1. Introduction

This guideline provides tenderers with a detailed description of how to calculate local content of products (goods, services and works) by components/material/services and enables them to keep an updated record for verification requirements as per the SATS 1286:2011 Annexure A and B.

The guideline consists of two parts, namely:

§ a written guideline; and

§ three declarations that must be completed:

- Declaration C: “Local Content Declaration – Summary Schedule” (see Annexure C);
- Declaration D: “Imported Content Declaration – Supporting Schedule to Annex C” (see Annexure D); and
- Declaration E: “Local Content Declaration – Supporting Schedule to Annex C” (see Annexure E).

The guidelines and declarations should be used by tenderers when preparing a tender. A tenderer must complete Declarations D and E, and consolidate the information on Declaration C.

Annexure C must be submitted with the tender by the closing date and time as determined by the Tender Authority. The Tender Authority reserves the right to request that Declarations D and E also be submitted.

If the tender is successful, the tenderer must continuously update Declarations C, D and E with actual values for the duration of the contract.

NOTE:

Annexure A is a note to the purchaser in SATS 1286:2011; and
Annexure B is the Local Content Declaration IN SATS 1286:2011.

2.2. What is local content?

According to SATS 1286:2011, the local content of a product is the tender price less the value of imported content, expressed as a percentage. It is, therefore, necessary to first compute the imported value of a product to determine the local content of a product.

2.3. Categories: Imported and Local Content

The tenderer must differentiate between imported content and local content. Imported content of a product by components/material/services is separated into two categories, namely:

- § products imported directly by the tenderer; and
- § products imported by a third party and supplied to the tenderer.

2.3.1. Imported Content

Identify the imported content, if any, by value for products by component/material/services. In the case of components/materials/services sourced from a South African manufacturer, agent, supplier or subcontractor (i.e. third party), obtain that information and Declaration D from the third party.

Calculate the imported content of components/materials/services to be used in the manufacture of the total quantity of the products for which the tender is to be submitted.

As stated in clause 3.2.4 of SATS 1286:2011: "If information on the origin of components, parts or materials is not available, it will be deemed to be imported content."

2.3.1.1. Imported directly by the tenderer:

When the tenderer import products directly, the onus is on the tenderer to provide evidence of any components/materials/services that were procured from a non-domestic source. The evidence should be verifiable and pertain to the tender as a whole. Typical evidence will include commercial invoices, bills of entry, etc.

When the tenderer procures imported services such as project management, design, testing, marketing, etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.2. Imported by a third party and supplied to the tenderer:

When the tenderer supplies components/material/services that are imported by any third party (for example, a domestic manufacturer, agent, supplier or subcontractor in the supply chain), the onus is on the tenderer to obtain verifiable evidence from the third party.

The tenderer must obtain Declaration D from all third parties for the related tender. The third party must be requested by the tenderer to continuously update Declaration D. Typical evidence of imported content will include commercial invoices, bills of entry etc.

When a third party procures imported services such as project management, design, testing, marketing etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.3. Exempt Imported Content:

Exemptions, if any, are granted by the Department of Trade and Industry (the dti). Evidence of the exemptions must be provided and included in Annexure D.**2.3.2.**

Local Content

Identify and calculate the local content, by value for products by components/materials/services to be used in the manufacture of the total quantity of the products.

TREASURY DESIGNATED SECTOR

TREASURY DESIGNATED SECTOR						
Steel Construction Material						
Item	Section	Bill No	Description	Unit	Qty	Local Content Threshold
Reinforcement (Foundations)						
13	2	4	Ref. S193 fabric reinforcement	m ²	1348	100%
12	3	2	Ref. S193 fabric reinforcement	m ²	510	100%
15	4	2	Ref. S395 fabric reinforcement	m ²	10	100%
14	5	2	Ref. S193 fabric reinforcement	m ²	297	100%
Reinforcement (C, F&R)						
13	3	2	10mm Diameter mild steel	t	2	100%
15	3	2	16mm Diameter Bars High-Tensile steel	t	6	100%
16	3	7	12mm Diameter Bars High steel	t	2	100%
14	2	2	Various steel reinforcement	t	20	100%
14	3	2	20mm Diameter Bars High-Tensile steel	t	2	100%
Brick Reinforcement (Masonry)						
3	2	3	75mm Brick Reinforcement	m	752	100%
4	2	3	150mm Brick Reinforcement	m	20 096	100%
5	3	3	75mm Brick Reinforcement	m	512	100%
6	3	3	150mm Brick Reinforcement	m	3912	100%
7	4	3	75mm Brick Reinforcement	m	749	100%
8	4	3	150mm Brick Reinforcement	m	3125	100%
Fabricated Structural Steel (Ironmongery)						
2	8	2	Code 630 Padlock	No	16	100%
3	9	3	Code 630 Padlock	No	8	100%
5	4	8	Code 630 Padlock	No	2	100%
4	8	2	Door Stopper	No	32	100%
10	9	3	Door Stopper	No	8	100%
1	4	8	Door Stopper	No	15	100%
16	4	8	Pinning Boards	No	1	100%
4	2	8	Pinning Boards	No	32	100%
17	4	8	3000 x 1200mm p/board	No	4	100%
11	9	3	Pinning Boards	No	16	100%

Door Frames						
3	4	8	Door Frames size 813 x 2032	No	11	100%
4	2	9	Door Frames size 813 x 2032	No	16	100%
3	2	9	Door Frames size 914 x 2032	No	16	100%
5	11	3	Door Frames size 813 x 2032	No	3	100%
Gutters, Downpipe and Lauders						
1	2	13	100 x 100mm seamless eaves gutters	m	432	70%
2	2	12	Extra over eave gutter for outlet for 75mm pipe	No	104	70%
4	2	12	75mm Diameter downpipe	m	416	70%
5	2	12	Extra over downpipe for bend	No	104	70%
6	2	12	Extra over downpipe for Shoe	No	208	70%
1	3	14	100 x 100mm seamless eaves gutters	m	158	70%
2	3	14	Extra over eaves gutter for angle	No	24	70%
4	3	14	Extra over eave gutter for outlet for 75mm pipe	No	24	70%
5	3	14	75mm Diameter downpipe	m	96	70%
6	3	14	Extra over downpipe for eaves or plinths offset	No	24	70%
7	3	14	Extra over downpipe for Shoe	No	24	70%
1	4	12	100 x 100mm seamless eaves gutters	m	79	70%
2	4	12	Extra over eaves gutter for angle	No	12	70%
4	4	12	Extra over eave gutter for outlet for 75mm pipe	No	12	70%
5	4	12	75mm Diameter downpipe	m	48	70%
6	4	12	Extra over downpipe for offset	No	12	70%
7	4	12	Extra over downpipe for Shoe	No	12	70%
PVC Pipes, etc						
20	3	14	110mm uPVC pipe	m	150	70%
18	4	12	110mm uPVC pipe	m	55	70%
24	3	14	Extra over uPVC pipe for 110mm bend	No	18	70%
25	3	14	Extra over uPVC pipe for 110mm junction	No	36	70%
29	3	14	Extra over uPVC pipe for 110mm Pan connector	No	12	70%
23	4	12	Extra over uPVC pipe for 110mm double junction	No	6	70%
22	4	12	Extra over uPVC pipe for 110mm bend	No	8	70%
18	4	12	50mm uPVC pipe	m	60	70%
19	4	12	50mm uPVC pipe	m	55	70%
21	4	12	Extra over uPVC pipe for 50mm bend	No	10	70%
20	4	12	110mm uPVC pipe	m	25	70%
30	3	14	Extra over uPVC pipe for 110mm vent valve	No	18	70%
Valves Products and Acutors						

Taps, Valves						
7	2	12	9kg DCP Fire Extinguisher	No	16	70%
45	3	14	9kg DCP Fire Extinguisher	No	6	70%
14	4	12	Bib tap	No	3	70%
17	4	14	Angle regulating Valve	No	4	70%
16	3	12	Angle regulating Valve	No	2	70%
44	4	12	30m Plastic Hose reel	No	1	70%
16	3	14	Gate valve	No	6	70%
15	4	12	Gate valve	No	6	70%
45	4	12	9kg DCP Fire Extinguisher	No	6	70%
16	6	12	9kg DCP Fire Extinguisher	No		70%
Electrical Cables						
PVC Cables						
13.9		Part B	10mm ² x 2 Core Cu Cables	m	450	90%
13.5		Part B	16mm ² x 2 Core Cu Cables	m	50	90%
Cement (Building and Civil)						
			Cement	ton	75	100%
Treasury Designated Sector						

3. ANNEXURE C

3.1. Guidelines for completing Annexure C: Local Content Declaration –Summary Schedule

Note: The paragraph numbers correspond to the numbers in Annexure C.

C1. Tender Number

Supply the tender number that is specified on the specific tender documentation.

C2. Tender description

Supply the tender description that is specified on the specific tender documentation.

C3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

C4. Tender Authority

Supply the name of the tender authority.

C5. Tendering Entity name

Provide the tendering entity name (for example, Unibody Bus Builders (Pty) Ltd).

C6. Tender Exchange Rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

C7. Specified local content %

Provide the specified minimum local content requirement for the tender (i.e. 80%), as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MDB) 6.2.

C8. Tender item number

Provide the tender item number(s) of the products that have a local content requirement as per the tender specification.

C9. List of items

Provide a list of the item(s) corresponding with the tender item number. This may be a short description or a brand name.

Calculation of local content

C10. Tender price

Provide the unit tender price of each item excluding VAT.

C11. Exempted imported content

Provide the ZAR value of the exempted imported content for each item, if applicable. These value(s) must correspond with the value(s) of column D16 on Annexure D.

C12. Tender value net of exempted imported content

Provide the net tender value of the item, if applicable, by deducting the exempted imported content (C11) from the tender price (C10).

C13. Imported value

Provide the ZAR value of the items' imported content.

C14. Local value

Provide the local value of the item by deducting the Imported value (C13) from the net tender value (C12).

C15. Local content percentage (per item)

Provide the local content percentage of the item(s) by dividing the local value (C14) by the net tender value (C12) as per the local content formula in SATS 1286.

Tender Summary

C16. Tender quantity

Provide the tender quantity for each item number as per the tender specification.

C17. Total tender value

Provide the total tender value by multiplying the tender quantity (C16) by the tender price (C10).

C18. Total exempted imported content

Provide the total exempted imported content by multiplying the tender quantity (C16) by the exempted imported content (C11). These values must correspond with the values of column D18 on Annexure D.

C19. Total imported content

Provide the total imported content of each item by multiplying the tender quantity (C16) by the imported value (C13).

C20. Total tender value

Total tender value is the sum of the values in column C17.

C21. Total exempted imported content

Total exempted imported content is the sum of the values in column C18. This value must correspond with the value of D19 on Annexure D.

C22. Total tender value net of exempted imported content

The total tender value net of exempt imported content is the total tender value (C20) less the total exempted imported content (C21).

C23. Total imported content

Total imported content is the sum of the values in column C19. This value must correspond with the value of D53 on Annexure D.

C24. Total local content

Total local content is the total tender value net of exempted imported content (C22) less the total imported content (C23). This value must correspond with the value of E13 on Annexure E.

C25. Average local content percentage of tender

The average local content percentage of tender is calculated by dividing total local content (C24) by the total tender value net of exempted imported content (C22).

4. ANNEXURE D

4.1. Guidelines for completing Annexure D: “Imported Content Declaration –Supporting Schedule to Annexure C”

Note: The paragraph numbers correspond to the numbers in Annexure D.

D1. Tender number

Supply the tender number that is specified on the specific tender documentation.

D2. Tender description

Supply the tender description that is specified on the specific tender documentation.

D3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

D4. Tender authority

Supply the name of the tender authority.

D5. Tendering entity name

Provide the tendering entity name (i.e. Unibody Bus Builders (Pty) Ltd).

D6. Tender exchange rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

Table A. Exempted Imported Content

D7. Tender item number

Provide the tender item number(s) of the product(s) that have imported content.

D8. Description of imported content

Provide a list of the exempted imported product(s), if any, as specified in the tender.

D9. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D10. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the exempted imported product(s).

D11. Imported value as per commercial invoice

Provide the foreign currency value of the exempted imported product(s) disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D12. Tender exchange rate

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D13. Local value of imports

Convert the value of the exempted imported content as per commercial invoice (D11) into the ZAR value by using the tender exchange rate (D12) disclosed in the tender documentation.

D14. Freight costs to port of entry

Provide the freight costs to the South African Port of the exempted imported item.

D15. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the exempted imported product(s) as stipulated in the SATS 1286:2011.

D16. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each item imported by adding the corresponding item values in columns D13, D14 and D15. These values must be transferred to column C11 on Annexure C.

D17. Tender quantity

Provide the tender quantity of the exempted imported products as per the tender specification.

D18. Exempted imported value

Provide the imported value for each of the exempted imported product(s) by multiplying the total landed cost (excl. VAT) (D16) by the tender quantity (D17). The values in column D18 must correspond with the values of column C18 of Annexure C.

D19. Total exempted imported value

The total exempted imported value is the sum of the values in column D18. This total must correspond with the value of C21 on Annexure C.

Table B. Imported Directly By Tenderer

D20. Tender item numbers

Provide the tender item number(s) of the product(s) that have imported content.

D21. Description of imported content:

Provide a list of the product(s) imported directly by tender as specified in the tender documentation.

D22. Unit of measure

Provide the unit of measure for the product(s) imported directly by the tenderer.

D23. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported product(s).

D24. Imported value as per commercial Invoice

Provide the foreign currency value of the product(s) imported directly by tenderer disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D25. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D26. Local value of imports

Convert the value of the product(s) imported directly by the tenderer as per commercial invoice (D24) into the ZAR value by using the tender exchange rate (D25) disclosed in the tender documentation.

D27. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported directly by the tenderer.

D28. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported directly by the tenderer as stipulated in the SATS1286:2011.

D29. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each item imported directly by the tenderer by adding the corresponding item values in columns D26, D27 and D28.

D30. Tender quantity

Provide the tender quantity of the product(s) imported directly by the tenderer as per the tender specification.

D31. Total imported value

Provide the total imported value for each of the product(s) imported directly by the tenderer by multiplying the total landed cost (excl. VAT)(D29) by the tender quantity (D30).

D32. Total imported value by tenderer

The total value of imports by the tenderer is the sum of the values in column D31.

Table C. Imported by Third Party and Supplied to the Tenderer

D33. Description of imported content

Provide a list of the product(s) imported by the third party and supplied to the tenderer as specified in the tender documentation.

D34. Unit of measure

Provide the unit of measure for the product(s) imported by the third party and supplied to tenderer as disclosed in the commercial invoice.

D35. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D36. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported products.

D37. Imported value as per commercial invoice

Provide the foreign currency value of the product(s) imported by the third party and supplied to the tenderer disclosed in the commercial invoice accepted by SARS.

D38. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D39. Local value of imports

Convert the value of the product(s) imported by the third party as precommercial invoice (D37) into the ZAR value by using the tender exchange rate (D38) disclosed in the tender documentation.

D40. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported by third party and supplied to the tenderer.

D41. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported by third party and supplied to the tenderer as stipulated in the SATS 1286:2011.

D42. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each product imported by third party and supplied to the tenderer by adding the corresponding item values in columns D39, D40 and D41.

D43. Quantity imported

Provide the quantity of each product(s) imported by third party and supplied to the tenderer for the tender.

D44. Total imported value

Provide the total imported value of the product(s) imported by third party and supplied to the tenderer by multiplying the total landed cost(D42) by the quantity imported (D43).

D45. Total imported value by third party

The total imported value from the third party is the sum of the values in column D44.

Table D. Other Foreign Currency Payments

D46. Type of payment

Provide the type of foreign currency payment. (i.e. royalty payment for use of patent, annual licence fee, etc.).

D47. Local supplier making the payment

Provide the name of the local supplier making the payment.

D48. Overseas beneficiary

Provide the name of the overseas beneficiary.

D49. Foreign currency value paid

Provide the value of the listed payment(s) in their foreign currency.

D50. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D51. Local value of payments

Provide the local value of each payment by multiplying the foreign currency value paid (D49) by the tender rate of exchange (D50).

D52. Total of foreign currency payments declared by tenderer and/or third party

The total of foreign currency payments declared by tenderer and/or a third party is the sum of the values in column D51.

D53. Total of imported content and foreign currency payment

The total imported content and foreign currency payment is the sum of the values in column D32, D45 and D52. This value must correspond with the value of C23 on Annexure C.

5. ANNEXURE E

5.1. Guidelines to completing Annexure E: “Local Content Declaration-Supporting Schedule to Annexure C”

The paragraph numbers correspond to the numbers in Annexure E

E1. Tender number

Supply the tender number that is specified on the specific tender documentation.

E2. Tender description

Supply the tender description that is specified on the specific tender documentation.

E3. Designated products

Supply the details of the products that are designated in terms of this tender (for example, buses/canned vegetables).

E4. Tender authority

Supply the name of the tender authority.

E5. Tendering entity name

Provide the tendering entity name (for example, Unibody Bus Builders(Pty) Ltd) Ltd).

Local Goods, Services and Works

E6. Description of items purchased

Provide a description of the items purchased locally in the space provided.

E7. Local supplier

Provide the name of the local supplier that corresponds to the item listed in column E6.

E8. Value

Provide the total value of the item purchased in column E6.

E9. Total local products (Goods, Services and Works)

Total local products (goods, services and works) is the sum of the values in E8.

E10. Manpower costs:

Provide the total of all the labour costs accruing only to the tenderer(i.e. not the suppliers to tenderer).

E11. Factory overheads:

Provide the total of all the factory overheads including rental, depreciation and amortisation for local and imported capital goods, utility costs and consumables. (Consumables are goods used by individuals and businesses that must be replaced regularly because they wear out or are used up. Consumables can also be defined as the components of an end product that are used up or permanently altered in the process of manufacturing, such as basic chemicals.)

E12. Administration overheads and mark-up:

Provide the total of all the administration overheads, including marketing, insurance, financing, interest and mark-up costs.

E13. Total local content:

The total local content is the sum of the values of E9, E10, E11 and E12. This total must correspond with C24 of Annexure C.

ANNEX C: LOCAL CONTENT DECLARATION – SUMMARY SCHEDULE

SBD 6.2: DECLARATION OF LOCAL CONTENT

										SATS 1286.2011			
Annex C													
Local Content Declaration - Summary Schedule													
(C1)	Tender No.		LDPWRI-B/20102										
(C2)	Tender description:		DAVID SCARA PS										
(C3)	Designated product(s)												
(C4)	Tender Authority:												
(C5)	Tendering Entity name:												
(C6)	Tender Exchange Rate:		Pula		EU		GBP						
(C7)	Specified local content %												
<div style="display: flex; justify-content: space-between;"> Declaration of local content Tender summary </div>													
Bill Page No.	Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content	
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)	
	13/2/2	Type 1.93 mesh reinforcement							1 348				
	12/3/2	Type 1.93 mesh reinforcement							510				
	15/4/2	Type 3.95 mesh reinforcement							10				
	14/4/2	Type 1.93 mesh reinforcement							297				
	13/3/2	10mm dia mild steel bars							2				
	15/3/2	16mm dia bars high tensile							6				
	16/3/7	12mm dia high tensile bars							2				
	14/3/2	20mm dia bars high tensile							2				
	14/2/2	Various steel diameters							20				
	3/2/3	75mm brick reinforcement							752				
	4/2/3	150mm brick reinforcement							20 096				
									(C20) Total tender value				
Signature of tenderer from Annex B									(C21) Total Exempt imported content				
									(C22) Total Tender value net of exempt imported content				
									(C23) Total Imported content				
									(C24) Total local content				
Date:									(C25) Average local content % of tender				

SBD 6.2: DECLARATION OF LOCAL CONTENT

										SATS 1286.2011				
Annex C														
Local Content Declaration - Summary Schedule														
(C1)	Tender No.		LDPWRI-B/20102										Note: VAT to be excluded from all calculations	
(C2)	Tender description:		DAVID SCARA PS											
(C3)	Designated product(s)													
(C4)	Tender Authority:													
(C5)	Tendering Entity name:													
(C6)	Tender Exchange Rate:		Pula		EU		GBP							
(C7)	Specified local content %													
<div style="display: flex; justify-content: space-between;"> Declaration of local content Tender summary </div>														
Bill Page No.	Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content		
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)		
	5/3/3	75mm brick reinforcement							512					
	6/3/3	150mm brick reinforcement							3 912					
	7/4/3	75mm brick reinforcement							749					
	8/4/3	150mm brick reinforcement							3 125					
	2/8/2	Code 630 padlock							16					
	3/9/3	Code 630 padlock							8					
	5/4/8	Code 630 padlock							2					
	4/8/2	Door stopper							32					
	10/9/3	Door stopper							8					
	1/4/8	Door stopper							15					
									(C20) Total tender value					
Signature of tenderer from Annex B									(C21) Total Exempt imported content					
									(C22) Total Tender value net of exempt imported content					
									(C23) Total Imported content					
									(C24) Total local content					
									(C25) Average local content % of tender					
Date:														

SBD 6.2: DECLARATION OF LOCAL CONTENT

										SATS 1286.2011				
Annex C														
Local Content Declaration - Summary Schedule														
(C1)	Tender No.		LDPWRI-B/20102											
(C2)	Tender description:		DAVID SCARA PS											
(C3)	Designated product(s)													
(C4)	Tender Authority:													
(C5)	Tendering Entity name:													
(C6)	Tender Exchange Rate:		Pula		EU		GBP							
(C7)	Specified local content %													
Note: VAT to be excluded from all calculations														
tion of local content Tender summary														
Bill Page No.	Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content		
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)		
	16/4/8	Pinning board							1					
	4/2/8	Pinning board							32					
	11/9/3	Pinning board							16					
	17/4/8	3000 x 1200mm p/board							4					
	3/4/8	Door frame size 813 x 2032mm							11					
	4/2/9	Door frame size 813 x 2032mm							16					
	3/2/9	Door frame size 914 x 2032mm							16					
	5/11/3	Door frame size 813 x 2032mm							3					
	1/2/12	100 x 100mm eaves gutter							432					
	2/2/12	Eo gutter for outlet							104					
	4/2/12	75mm dia downpipe							416					
	5/2/12	Eo d/pipe for bend							104					
									(C20) Total tender value					
									(C21) Total Exempt imported content					
									(C22) Total Tender value net of exempt imported content					
									(C23) Total Imported content					
									(C24) Total local content					
									(C25) Average local content % of tender					
Signature of tenderer from Annex B														
Date:														

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011												
Annex C												
Local Content Declaration - Summary Schedule												
(C1)	Tender No.	LDPWRI-B/20102										
(C2)	Tender description:	DAVID SCARA PS										
(C3)	Designated product(s)											
(C4)	Tender Authority:											
(C5)	Tendering Entity name:											
(C6)	Tender Exchange Rate:	Pula		EU		GBP						
(C7)	Specified local content %											
Note: VAT to be excluded from all calculations												
Declaration of local content Tender summary												
Bill Page No.	Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	6/2/12	Eo d/pipe for shoe							208			
	1/3/14	125 x 100mm eaves gutter							158			
	2/3/14	Eo gutter for angle							24			
	4/3/14	Eo gutter for outlet							24			
	5/3/14	75mm dia d/pipe							96			
	6/3/14	Eo d/pipe for offset							24			
	7/3/14	Eo d/pipe for shoe							24			
	1/4/12	125 x 100mm eaves gutter							79			
	2/4/12	Eo gutter for angle							12			
									(C20) Total tender value			
									(C21) Total Exempt imported content			
									(C22) Total Tender value net of exempt imported content			
									(C23) Total Imported content			
									(C24) Total local content			
									(C25) Average local content % of tender			
Date:												
Signature of tenderer from Annex B												

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011												
Annex C												
Local Content Declaration - Summary Schedule												
(C1)	Tender No.	LDPWRI-B/20102										
(C2)	Tender description:	DAVID SCARA PS										
(C3)	Designated product(s)											
(C4)	Tender Authority:											
(C5)	Tendering Entity name:											
(C6)	Tender Exchange Rate:	Pula		EU		GBP						
(C7)	Specified local content %											
Declaration of local content												
Tender summary												
Bill Page No.	Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	4/4/12	Eo gutter for outlet							12			
	5/4/12	75mm dia d/pipe							48			
	6/4/12	Eo d/pipe for offset							12			
	7/4/12	Eo d/pipe for shoe							12			
	20/3/14	110mm uPVC pipe							150			
	24/3/14	Eo pipe for 110mm bend							18			
	25/3/14	Eo pipe for 110mm junction							36			
	29/3/14	Eo pipe for 110mm pan							12			
	30/3/14	Eo pipe for 110mm vent valve							18			
									(C20) Total tender value			
									(C21) Total Exempt imported content			
									(C22) Total Tender value net of exempt imported content			
									(C23) Total Imported content			
									(C24) Total local content			
									(C25) Average local content % of tender			
Signature of tenderer from Annex B _____ Date: _____												

SBD 6.2: DECLARATION OF LOCAL CONTENT

										SATS 1286.2011			
Annex C													
Local Content Declaration - Summary Schedule													
(C1)	Tender No.		LDPWRI-B/20102										
(C2)	Tender description:		DAVID SCARA PS										
(C3)	Designated product(s)												
(C4)	Tender Authority:												
(C5)	Tendering Entity name:												
(C6)	Tender Exchange Rate:		Pula		EU		GBP						
(C7)	Specified local content %												
<div style="display: flex; justify-content: space-between;"> Declaration of local content Tender summary </div>													
Bill Page No.	Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content	
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)	
	44/4/12	30m plastic fire hose reel							1				
	7/2/12	9kg fire extinguisher							16				
	16/3/14	Gate valve							6				
	14/4/12	Bib tap							3				
	15/4/12	Gate valve							6				
	45/3/14	9kg fire extinguisher							6				
	45/4/12	9kg fire extinguisher							2				
	17/3/14	Regulating valve							4				
	16/4/12	Regulating valve							2				
	18/4/12	50mm uPVC pipe							60				
									(C20) Total tender value				
									(C21) Total Exempt imported content				
									(C22) Total Tender value net of exempt imported content				
									(C23) Total Imported content				
									(C24) Total local content				
									(C25) Average local content % of tender				
Signature of tenderer from Annex B													
Date:													

SBD 6.2: DECLARATION OF LOCAL CONTENT

SATS 1286.2011												
Annex C												
Local Content Declaration - Summary Schedule												
(C1)	Tender No.		LDPWRI-B/20102									
(C2)	Tender description:		DAVID SCARA PS									
(C3)	Designated product(s)											
(C4)	Tender Authority:											
(C5)	Tendering Entity name:											
(C6)	Tender Exchange Rate:		Pula		EU		GBP					
(C7)	Specified local content %											
Note: VAT to be excluded from all calculations												
Declaration of local content												
Bill Page No.	Tender item no's	List of items	Tender price each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
	(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
	18/4/12	110mm dia uPVC pipe							55			
	19/4/12	50mm uPVC pipe							25			
	20/4/12	110mm dia uPVC pipe							25			
	21/4/12	50mm dia bend							10			
	22/4/12	110mm dia bend							8			
	23/4/12	110mm junction							6			
	13.9/part B	10mm ² x 2 core cu cables							450			
	13.9/part B	16mm ² x 2 core cu cables							50			
		Cement							75			
	(C20) Total tender value											
	(C21) Total Exempt imported content											
	(C22) Total Tender value net of exempt imported content											
	(C23) Total Imported content											
(C24) Total local content												
(C25) Average local content % of tender												
Signature of tenderer from Annex B												
Date:												

SBD 6.2: DECLARATION OF LOCAL CONTENT

Annex D

SATS 1286.2013

Imported Content Declaration - Supporting Schedule to Annex C

(D1) Tender No. _____
 (D2) Tender description: _____
 (D3) Designated Products: _____
 (D4) Tender Authority: _____
 (D5) Tendering Entity name: _____
 (D6) Tender Exchange Rate: _____ Pula _____

Note: VAT to be excluded from all calculations

EU R 9.00

GBP R 12.00

A. Exempted imported content

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)

(D19) Total exempt imported value

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)

(D32) Total imported value by tenderer

C. Imported by a 3rd party and supplied to the Tenderer

				Calculation of imported content						Summary	
Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Quantity imported	Total imported value
(D33)	(D34)	(D35)	(D36)	(D37)	(D38)	(D39)	(D40)	(D41)	(D42)	(D43)	(D44)

(D45) Total imported value by 3rd party

D. Other foreign currency payments

			Calculation of foreign currency payments		Summary of payments	
Type of payment	Local supplier making the payment	Overseas beneficiary	Foreign currency value paid	Tender Rate of Exchange	Local value of payments	(D51)
(D46)	(D47)	(D48)	(D49)	(D50)		

(D52) Total of foreign currency payments declared by tenderer and/or 3rd party

(D53) Total of imported content & foreign currency payments - (D32), (D45) & (D52) above

This total must correspond with Annex C - C 23

Signature of tenderer from Annex B

Date: _____

SBD 6.2: DECLARATION OF LOCAL CONTENT

Annex E

SATS 1286.2011

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	
(E2)	Tender description:	
(E3)	Designated products:	
(E4)	Tender Authority:	
(E5)	Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
	(E9) Total local products (Goods, Services and Works)		

(E10) **Manpower costs** (Tenderer's manpower cost)

(E11) **Factory overheads** (Rental, depreciation & amortisation, utility costs, consumables etc.)

(E12) **Administration overheads and mark-up** (Marketing, insurance, financing, interest etc.)

(E13) Total local content

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date:

SBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT

SBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct concerning such system; or
 - c. failed to perform on any previous contract.
- 4 **To give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied). The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST
ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *per se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct concerning such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf
of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. 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.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) the geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.

SBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, before the date and time of the official bid opening or of the awarding of the contract.
- 10. 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.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

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.

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

The Limpopo Department of Public Works, Roads & Infrastructure is tasked with achieving government socio-economic transformation and development initiatives through its procurement spend. The department therefore endeavours to promote such initiatives through its procurement, by means of one or a combination of the following, in terms of the Preferential Procurement Policy Framework Act (PPPFA), 2000: Preferential Procurement Regulations (PPR), 2017:

1. Application of Subcontracting as a Condition of Tender, in line with the PPPFA: PPR 2017;
 - 1.1 The basis and conditions for sub-contracting as a condition of tender, is further detailed under item 1.1 below.

The Tenderer if successful in this bid offer, will be required to provide the Signed Subcontracting Agreement(s) and Supporting Documents, in line with the information detailed in this Returnable within 60 calendar days of the site handover. Failure to adhere to this will result in the immediate cancellation of the acceptance of offer (appointment letter).

Additional information to subcontracting requirement in terms of Regulations 4 or 9 PPR2017:

- i. It is the responsibility of the tenderer to select competent subcontractors that meet all the requirements of the tender. The fact that the Department/Employer may make a list of potential subcontractors available as registered on the National Treasury CSD or on a CIDB database does not result in any liability of the Department/Employer or a warranty that the listed suppliers are competent.
- ii. Subcontractors may not be allocated work which contradicts any regulations, regulatory body and/or compliance requirements relevant to the work being sub-contracted for i.e. requirements by CIDB Regulations, accreditations and registrations to professional / regulatory institutions in the case of professional services etc.
- iii. The tenderer will be responsible for all due diligence on the selected subcontractors and will be held liable for any non-performance.
- iv. With reference to **the Preferential Procurement Regulations 2017, Regulation 6(5), 7(5) and 12(3)**; *"A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise, that does not have an equal or higher B-BBEE status level of contributor than the person concerned."*
 - *"Unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract".*
 - Or the tenderer may not be awarded points for B-BBEE status level of contribution.
- v. Tenderers are to complete and submit a Schedule of Proposed Subcontracting Arrangement(s)), also stipulating the percentage and equivalent Rand value to be subcontracted.
- vi. Tenderers are to provide, on award within 60 calendar days of the site handover, formal proof of Signed Subcontracting Agreement(s) together with the following documentation for each of the relevant, as a minimum:

Supporting Documents to Subcontracting Agreement/s
Certified Copy of valid B-BBEE Certificate/ Affidavit.
Copy of valid/ active CIDB registration in the case of construction work.
Copy of valid/ active registration to applicable regulatory institutions (where stipulated) in the case of professional services work.
A valid and active Tax Compliance Status Pin issued by SARS.
Submission of National Treasury Central Supplier Database (CSD) Summary Report.

Note: It is incumbent and expected that the Tenderer will apply the same due care and diligence in selecting and managing its sub-contractors / joint venture partner as would have been the case in their own appointment.

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

1. SUBCONTRACTING AS A CONDITION OF TENDER

In line with the Preferential Procurement Policy Regulations 2017, Regulation 9, Subcontracting may only be to one or a combination of the following (as per National Treasury CSD and CIDB databases):	
NO.	CATEGORIES FOR SUBCONTRACTING
1	A tenderer subcontracting a minimum of 30% of the value of the contract to one or a combination of the designated categories below:
1.1	An EME or QSE which is at least 51% owned by black people; or
1.2	an EME or QSE which is at least 51% owned by black people who are youth; or
1.3	an EME or QSE which is at least owned by black people who are women; or
1.4	an EME or QSE which is at least 51% owned by black people with disabilities; or
1.5	an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships; or
1.6	a cooperative which is at least 51% owned by black people; or
1.7	an EME or QSE which is at least 51% owned by black people who are military veterans; or
1.8	an EME or QSE.

Tenderers are formally required to allow for subcontracting of the allocated work as set out in the Scope of 30% of the Tender Value offered.

1.1 BASIS AND CONDITIONS FOR SUBCONTRACTING AS A CONDITION OF TENDER

The basis and conditions for sub-contracting as a condition of tender is detailed as follow:

- 1.1.1** The advancement of certain designated groups in terms of Regulation 4 PPR2017;
- 1.1.2** The advancement of suppliers or enterprises in the geographical area or Province where the project site is located;
- 1.1.3** All requirements stipulated under clauses 1 and 1.1 of this Returnable, must be read in conjunction with the information documented within this Declaration on **Item 3 – Schedule of Proposed Subcontracting Work.**

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

2. SUBCONTRACTING AFTER AWARD OF TENDER

In line with the Preferential Procurement Policy Regulations 2017, Regulation 12, Subcontracting after Award, the following are contractual obligations for notification:

- 2.1 A person awarded a contract may only enter into a subcontracting arrangement with the approval of the organ of state.
- 2.2 A person awarded a contract in relation to a designated sector, may not subcontract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 2.3 A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level of contributor than the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the subcontract.

DECLARATION OF SUBCONTRACTING ARRANGEMENTS

3. SCHEDULE OF PROPOSED SUBCONTRACTING WORK

The tenderer is required to complete the table below indicating the nature and extent of work to be subcontracted and value and percentage of work to the tender amount. The total percentage of the value of work to be subcontracted must be to a minimum of 30% or more of the tender amount. Failure to comply with the 30% minimum value of the work to be subcontracted will lead to the disqualification of the tender.

	NATURE AND EXTENT OF WORK	SUB-CONTRACTORS CONTRACT VALUE	SUB-CONTRACTORS PERCENTAGE (%) OF CONTRACT VALUE
1.			
2.			
3.			
4.			
5.			
TOTAL SUBCONTRACT VALUE & PERCENTAGE IN RELATION TO CONTRACT VALUE			

I, THE UNDERSIGNED (*FULL NAME OF AUTHORISED PERSON*)

ON BEHALF OF (*FULL NAME OF TENDERING ENTITY*)

FORMALLY CONFIRM THAT THIS TENDER SUBMISSION IS FULLY COMPLIANT AND ADHERES IN FULL, TO ALL THE REQUIREMENTS STIPULATED IN THIS BID IN ITS ENTIRITY.

I ACCEPT THAT, FAILURE TO COMPLETE AND SUBMIT THIS DECLARATION ON SUBCONTRACTING ARRANGEMENTS AND SCHEDULE OF PROPOSED SUBCONTRACTING WORK WILL RESULT IN THE DISQUALIFICATION OF MY TENDER SUBMISSION.

I ACCEPT THAT, FAILURE TO SUBMIT THE SIGNED SUBCONTRACTING AGREEMENTS AND ITS SUPPORTING DOCUMENTS ON AWARD, IN ACCORDANCE WITH THE REQUIREMENTS OF THE BID, WILL LEAD TO THE CANCELLATION OF THE CONTRACT.

SIGNATURE: _____

DATE: _____

SAFCEC JOINT VENTURE AGREEMENT

JOINT VENTURE AGREEMENT made and entered into by and between:

.....of
..... (hereafter referred to as)

of the first part;

and

.....of
..... (hereafter referred to as)

of the second part;

PREAMBLE

WHEREAS the Parties have formed a Joint Venture in order to submit tenders to the
..... for the construction of
.....
(hereafter
referred to as the "works").

NOW THEREFORE, IT IS AGREED AS FOLLOWS:

1. FORMATION OF JOINT VENTURE

- 1.1 The Parties hereby associate themselves into and as a Joint Venture in accordance with the provisions of this Agreement under the style or firm name of JOINT VENTURE.
- 1.2 The Parties hereto agree and undertake that they will not disclose the contents of this Agreement to persons with whom they may have any dealings directly or indirectly arising from the conclusion of this Agreement and the operation and establishment of the Works.
- 1.3 Notwithstanding that the parties may be jointly and severally bound to the, should the Joint Venture be awarded the contract by the for the construction of the Works, nothing herein contained shall be interpreted as giving rise to a general partnership between the parties or limiting the rights or powers of either party to carry on its separate business for its sole benefit.

2. OBJECT AND MOTIVATION

The sole object for which this Joint Venture is established and the sole business of the Joint Venture is to negotiate for and conclude a contract for the execution of the Works and to carry out such Works to finality, all in accordance with the terms of this Agreement.

3. PROFITS AND LOSSES

- 3.1 The profits and losses of the Joint Venture shall be borne by and In the proportions% and% respectively (hereinafter referred to as "the Specified Proportions").
- 3.2 In addition to any other provisions contained in this Agreement, the functions, duties, obligations and responsibilities of and under this Joint Venture agreement and in the execution of the Works will be to provide all bridging finance, guarantees and resources necessary to successfully carry out the project in proportion to the specified proportions, in which proportions all profits, losses, costs, liabilities and assets and any other responsibilities, whether pecuniary or otherwise, shall be shared equally, as far as possible.

4 DURATION

The operation of this Agreement shall be deemed to have commenced on the Day of 200..., and shall terminate, except insofar as the provisions of Clauses 5 and 6 apply, upon the happening of any of the following events, whichever shall be earlier:

- 4.1 Award of the Contract by for the construction of the Works to an outside party or parties, or
- 4.2 In the case of contract award, at the time the contract is terminated and all rights and obligations of the parties in connection with such contract and in connection with this Agreement have ceased, but in no case before the conclusion of any maintenance period in the contract and the cancellation and/or refund of all guarantees and bonds. The Joint Venture existence shall also be deemed to continue insofar as the Joint Venture is responsible for latent defects under the contract.

SAFCEC JOINT VENTURE AGREEMENT

5. EXCLUSIVITY

The Parties agree and undertake in favour of each other that neither of them shall, except in accordance with the intention expressed in this agreement, be associated in any manner, either directly or indirectly, with any investigation, negotiation, tender or proposal for the performance of or incidental to the execution of the Works and including any variation by way of addition or omission from the scope of the Works or the extension to the Works, nor invest in any company, enterprise or partnership in any manner related thereto, either as previously agreed by the Management Committee in writing.

6. PRE-CONTRACT COSTS

- 6.1 All costs incurred by the Parties prior to the day of 200...., shall be for their own account.
- 6.2 Costs incurred by the Parties after the day of 200... and approved by the Management Committee, shall be borne by the Parties in the Specified Proportions.

7. MANAGEMENT COMMITTEE

- 7.1 The day-to-day affairs of the Joint Venture shall be under the control of a Management Committee which shall consist of one representative of each of the parties. Within the terms of this agreement and the contract, if awarded, each such member shall have full authority to bind the party and/or parties he represents in all matters relating to the affairs of the Joint Venture. No party to this agreement may bind the other party hereto without the prior consent of such other party, nor may the Management Committee bind the Joint Venture or any party beyond the terms of this agreement or the contract without the prior written consent of both parties. The parties hereto shall be obliged immediately upon signature of this Agreement, to appoint their representatives and the first meeting of the Management Committee will be held immediately thereafter. The parties shall be obliged at all times to maintain a representative on the Management Committee.
- 7.2 Each representative on the Management Committee shall be entitled to appoint, and from time to time remove and replace, an alternate who shall, at any meeting of the Management Committee at which the representative whom he represents is absent, be vested with all rights and powers and subject to all obligations of the representative whom he represents.
- 7.3 The Chairman at meetings of the Management Committee shall be a representative from and respectively on a six months rotation basis commencing with
- 7.4 Meetings of the Management Committee shall take place at such times and places as the Committee shall determine, provided that the Chairman shall be obliged to convene a meeting of the Management Committee not later than 10 days after being required to do so by any one of the parties to this agreement. Not less than five days' notice of any meeting of the Management Committee shall be given to the representatives thereof and their alternates.
- 7.5 Decisions of the Management Committee shall be unanimous, provided that If the representatives or the alternates fail to agree on any decision, the meeting at which that decision is sought shall be adjourned for a period of 24 hours and should the representatives then not agree on the course of action to be taken the matter shall be referred to the Executive Board for a decision. The decision of such Executive Board shall be placed before a further adjourned meeting, which shall take place no later than 72 hours after the initial adjourned meeting and shall bin the Management Committee which shall adopt such decision without variation.
- 7.6 Subject to 7.7 below, decisions on the Management Committee may be reached telephonically, telegraphically, by facsimile or in writing.
- 7.7 Decisions of the Management Committee, whether at a meeting or otherwise, shall be recorded in written minutes which shall be distributed by the Chairman, for the time being to the members of the Management Committee not later than seven days after those decisions have been taken.

SAFCEC JOINT VENTURE AGREEMENT

Such minutes shall be deemed to have been affirmed unless dissented from not later than seven days after they are deemed to have been received by the dissenter.

- 7.8 The Management Committee may, as it wishes, decide to increase the number of its members for or invite other parties to attend any of its meetings. Such co-opted members or observers shall not have a vote.
- 7.9 The Management Committee shall have the power to delegate such of its powers and duties as it may determine in the best interests of the parties.
- 7.10 No remuneration shall be paid by the Joint Venture to the parties' representatives on the Management Committee in their capacities as such.
- 7.11 The administrative function regarding the operation of the Management Committee shall be fulfilled by the Chairman.

8 POWERS OF THE MANAGEMENT COMMITTEE AND DIRECTION OF THE PROJECT MANAGER

The functions, responsibilities and powers of the Management Committee shall be:

- 8.1 To appoint the Project Manager who shall be nominated by and and who shall attend all meetings of the Management Committee for the implementation of its policies and act only in accordance with its directives and its established procedures. The Project Manager shall be removed in terms of 10 hereof and his successor(s) shall be nominated by and And approved by the Management Committee.
- 8.2 To formulate and dictate to the Project Manager overall policy regarding the following:
- 8.2.1 The general day-to-day management of the affairs of the Joint Venture.
- 8.2.2 Representation of the Joint Venture in dealing with the Resident Engineer/Engineer/Client and third parties on matters affecting the Joint Venture as a whole.
- 8.2.3 Co-ordination of the activities of the parties.
- 8.2.4 Preparation by agreement with the parties and supervision of the programme of the Works.
- 8.2.5 Ensuring that the responsibility of each of the parties in regard to technical and contractual matters is preserved.
- 8.3 To make such provisions as are necessary to enable the Project Manager to perform his tasks.
- 8.4 To approve the balance sheets and accounts of the Joint Venture.
- 8.5 To approve the tender submitted by the Joint Venture and to approve or withhold approval for and amendment proposed thereto.
- 8.6 To approve the appointment of legal advisers and auditors where such appointments are necessary.
- 8.7 To determine the nature and extend of any additional duties and functions of each of the parties in relation to this Joint Venture.
- 8.8 To determine the terms and conditions of employment of personnel as well as emoluments seconded by the parties to the Joint Venture.
- 8.9 Subject to the terms and conditions of this agreement, to determine and approve:
- 8.9.1 The amount and type of working capital requirements of the Joint Venture.
- 8.9.2 All borrowings, guarantees and like obligations undertaken by the parties to the Joint Venture.

SAFCEC JOINT VENTURE AGREEMENT

8.9.3 The insurance to be taken out by the Joint Venture.

8.9.4 The nature, method and amount of all claims.

8.9.5 When and in what amount to distribute dividends to the parties hereto, save that any decision in terms of which the Joint Venture will undertake further work outside of the original scope of the contract or any variation or amendment of this agreement of the contract, shall require the unanimous agreement of the parties before becoming effective and binding the Joint Venture.

8.9.6 The approval and appointment of all sub-contractors.

9 THE EXECUTIVE BOARD

- 9.1 The Executive Board shall consist of one representative of each of the parties who shall be the Chief Executive Officer of each Joint Venture partner or their nominated deputy but shall not be the same representative as appointed to the Management Committee in terms of Clause 7.1 hereof. The Executive Board shall be the mediation authority of the Joint Venture which shall decide on all issues which are referred to it by the Management Committee as well as on all issues where the Management Committee is not unanimous.
- 9.2 Decisions of the Executive Board, whether original decisions or decisions taken after referral from the Management Committee shall be implemented by the Management Committee as per Clause 7.5.1.
- 9.3 Decisions of the Executive Board shall be unanimous.
- 9.4 Effect shall be given to a resolution arrived at unanimously.
- 9.5 In the event of the Executive Board not being unanimous in its decision the matter is to be referred to arbitration in terms of Clause 16 hereof.
- 9.6 Subject to 9.7 as read in conjunction with 7.7 and, provided that they are unanimous, decisions of the Executive Board may be reached telephonically, telegraphically or in writing. If reached telephonically or otherwise orally such decision must be confirmed in writing within 24 hours.
- 9.7 The Minutes of meetings of the Executive Board shall be handled mutatis mutandis in the manner per Clause 7.7.
- 9.8 The administrative functions regarding the operation of the Executive Board shall be fulfilled by the Chairman of the Management Committee, who shall not be entitled to a voice or a vote at Executive Board meetings.

10 PERSONNEL

- 10.1 The Project Manager shall be appointed as provided in Clause 8.1 hereof.
- 10.2 The person nominated to the office of Project Manager shall be subject to removal from such office by decision of the Management Committee.
- 10.3 All the remuneration and emoluments of employment of the Project Manager shall be an expense of and paid by the Joint Venture, provided that a party shall be entitled by notice in writing delivered to the other parties to elect that the person to be nominated by it to fill the offices of project Manager shall be seconded to the Joint Venture in which event the remuneration and emoluments which would otherwise have been paid to such persons while filling such offices shall be paid to the member responsible for their nomination or otherwise as such member shall direct and subject to such payment being duly and promptly paid to the member or its nominee, the member will hold harmless and keep indemnified the Joint Venture and the other members from all actions, proceedings, claims and demands by such persons or otherwise howsoever in respect of such remuneration and emoluments. The remuneration and emoluments to be paid and allowed by the Joint Venture to the Project Manager shall be

SAFCEC JOINT VENTURE AGREEMENT

determined from time to time by the Management Committee and borne by the parties hereto in the Specified Propositions.

10.4 The members of the Management Committee and Executive Board and their proxies and alternates shall not be employees of the Joint Venture and shall not be entitled to claim any salary or remuneration from the Joint Venture by virtue of such appointments unless the Management Committee shall otherwise decide in writing.

10.5 shall be appointed as Secretaries to the Joint Venture. Save for matters pertaining to the works and the contract, Shall be consulted on all matters of an administrative and financial nature arising in connection with the business of the Joint Venture where their particular experience, knowledge, facilities and skills in matters of this nature shall be considered to be of benefit to the Joint Venture.

11 FINANCING

11.1 Working Capital

11.1.1 Banking accounts shall be opened in the name of the Joint Venture with banks and at such places as may be determined by it, and the parties shall be responsible for the payment in the Specified Properties of such sums to the credit of such banking accounts as shall from time to time be required by way of working capital for the Joint Venture.

11.1.2 Any amounts from time to time advanced by the parties to the Joint Venture in terms of this agreement shall be placed to the credit of their respective capital accounts in the Joint Venture.

11.1.3 The banking accounts referred to in sub-clause 11.1.1 hereof shall be operated, and cheques thereon shall be drawn in accordance with the instructions to the bankers in question. Withdrawals from these banking accounts shall be effected on the authority of persons nominated thereto by the Management Committee.

11.1.4 Should any party fail to make payment to the Joint Venture of any amount which it is obliged to pay in terms of sub-clause 11.1.1 hereof, after the expiry of a period of seven days from the date of notice requiring it to make such payment, the party to default shall be liable for payment of interest to the other parties on the amount so withheld at the rate of Prime Bank rate charged by Joint Venture Bankers per annum should such other parties have advanced the aforesaid sum.

11.1.5 All revenue derived by the Joint Venture from the contract shall forthwith be deposited to the credit of the banking accounts referred to in sub-Clause 11.1.1 hereof.

11.1.6 The amount for the time being standing to the credit of the Joint Venture's banking accounts shall be applied:

11.1.6.1 In discharging the obligations of the Joint Venture in accordance with their tenor; provided that the Management Committee shall be entitled to require the payment of any liability prior to its due date if such anticipated payment will result in the allowance by the creditor in question of an advantageous discount to the Joint Venture for prompt payment;

11.1.6.2 As to any surplus of funds for the time being in the said banking account, subject to the agreement of the parties as payment to the parties in the Specified Proportions or in proportion to their participation of the time being in

SAFCEC JOINT VENTURE AGREEMENT

the Joint Venture, save that any such surplus shall first be utilised for the purpose of eliminating or reducing any disproportion in the ratios of the parties respective capital accounts.

11.2 Capital and Advances

11.2.1 The amount of capital required by the Joint Venture to attain its object (and which includes all loans, guarantees, indemnities, reserves) shall be determined from time to time by the Management Committee, and upon being so determined shall forthwith be contributed by the parties to the Joint Venture in the Specified Proportions.

11.2.2 If at any time any party to the Joint Venture shall, due to an emergency or with the consent in writing of the other parties advance any sum of money or to incur any liability on behalf of the Joint Venture over and above its due contribution to capital, then where money has been advanced, the same shall be a debt due from the Joint Venture to the party advancing the money, and shall be repayable on thirty days' notice and shall bear interest at Prime Bank rate as charged by Joint Venture's bankers per annum from date of advance to date of payment. Where a party has incurred a contingent liability on the above basis, the other parties shall, within thirty days of being requested to do so in writing, relieve such party of its obligations thereunder to the extent that the obligations of the parties are in the Specified Proportions.

12. ACCOUNTS

12.1 The Joint Venture shall cause proper books of account and complete records to be kept as are customary in the Republic of South Africa relating to all the assets and liabilities of the Joint Venture and expenses incurred or income received by the Joint Venture.

Such book and records shall not be related to the affairs of the parties individually. The said books of account and records, together with all letters, papers or writings concerning or belonging to the Joint Venture shall be kept at site and such other place from time to time as determined by the Management Committee, and each of the parties to the Joint Venture shall at all times have free access and the right to inspect and copy the same.

12.2 Within thirty days of the end of every quarter during the continuance of the Joint Venture, the Joint Venture shall furnish to the Management Committee all necessary documents such as balance sheets, profit and loss accounts, bank balances and comparisons with budget and forecasts of cash flow and profits as are necessary to keep the Management Committee informed of the financial affairs of the Joint Venture. Every such profit and loss account and balance sheet shall be agreed to and signed by the members of the Management Committee on behalf of the Joint Venture members, and when so signed, shall be binding on all the parties, except that if any manifest error therein be detected and pointed out by any party to the others at any time after such signature, such error shall forthwith be rectified.

12.3 After the completion of the contract and the release of all bonds, guarantees and obligations given for the performance of the parties in the Joint Venture, the joint Venture shall procure the preparation and auditing of a final balance sheet and profit and loss account, which shall be approved by the Management Committee, and from which the final profit and loss sustained by the Joint Venture shall be ascertained, and distributed to or contributed by the parties in proportion to their participation in the Joint Venture. This clause shall not be construed as prohibiting the interim distribution of profits or contribution towards losses in the discretion of the Management Committee.

SAFCEC JOINT VENTURE AGREEMENT

13. WINDING UP

Upon the determination of the Joint Venture in accordance with the provisions of this agreement, a full and general account shall be taken of the assets and liabilities of the Joint Venture and of the transactions and dealings thereof, and with all convenient speed, such assets shall be sold and realised and the proceeds applied in paying and discharging such liabilities and the expenses of and incidental to the winding-up of the Joint Venture affairs and thereafter in paying to each Joint Venture member its share of such proceeds in the Specified Proportions. The Joint Venture members respectively undertake to do all such things as may be necessary so as to give effect to the above.

14. BREACH

- 14.1 If a party ("the guilty party") shall commit a breach of any material provision of this agreement, and fail to remedy the same within a period of thirty (30) days after the receipt by it of written notice requiring it to do so, or be placed in liquidation or under judicial management, whether provisionally or finally, or propose any compromise with its creditors, the other parties ("the aggrieved parties") shall have the right, without prejudice to any of its other remedies arising from such breach, forthwith to terminate this agreement, in which event:
- 14.2 The guilty party's interest in the joint venture shall be taken over by the remaining parties. The aggrieved parties shall, in addition, have the right, if it so requires, to take over the capital account of the party in default.
Such capital account shall be valued on the basis of the nett assets revealed in an audited balance sheet and profit and loss account prepared as at the end of the month in which the default or other breach occurred; provided that the profit and loss account shall take into account the Joint Venture's share in the valuation of the work in progress, as shown in the Joint Venture accounts, at the date of preparation of the balance sheet and profit and loss account, after providing for any known or contemplated future losses to be incurred on the work undertaken or to be undertaken by the Joint Venture and provided further that should upon the completion of the contract or contracts, the provision for losses made in the valuation or work in progress as aforesaid prove to be incorrect, such provisions shall be adjusted. Provided the aggrieved parties have proved that the tender rates as escalated from time to time were inadequate, the guilty party shall be liable to the extent of the participation of such party for all losses incurred on the whole of the contract, including any losses incurred subsequent to the termination of the agreement in accordance with these provisions, but such party shall not be entitled to share in any profits earned subsequent to such termination.
- 14.3 The aggrieved parties shall have the right to recruit in its employment personnel seconded to the Joint Venture by the guilty party and, as a stipulation in favour of such personnel, the guilty party waives any claims it might otherwise have had against such personnel arising from their summary termination of their employment with the guilty party.
- 14.3 All plant hired by the guilty party to the Joint Venture shall remain on hire to and under the control of the aggrieved parties until the completion of the contract, or until the aggrieved parties shall release such plant from the operation of this sub-clause. Payment shall be made thereof monthly.

15. DISPUTES

- 15.1 Having regard to the high degree of good faith which must exist between the parties, the parties agree to do their utmost to ensure that the disputes between them are settled equitably and amicably and where possible without resort to arbitration.

SAFCEC JOINT VENTURE AGREEMENT

- 15.2 In the event of any differences or dispute of whatever nature arising from this agreement (which shall include any failure to agree on any matter which requires the parties' agreement for the purposes of implementation of this agreement) or any other matter related thereto which cannot be settled by direct negotiation between the parties, such differences or dispute shall be referred to arbitration in terms of Clause 16 hereof.

16 ARBITRATION

- 16.1 Save as hereinafter provided, any dispute at any time between any of the parties hereto in regard to any matter arising out of this agreement or its interpretation or rectification shall be submitted to and decided by arbitration.
- 16.2 The arbitration referred to in 16.1 shall be held -
- 16.2.1 At
- 16.2.2 In a summary manner, i.e. on the basis that it shall not be necessary to observe or carry out either -
- 16.2.2.1 the usual formalities or procedure (e.g. there shall not be any pleadings or discovery); or
- 16.2.2.2 the strict rules of evidence.
- 16.2.3 Immediately and with a view to its being completed within twenty-one business days after it is demanded;
- 16.2.4 Otherwise (but subject to © (d) and (e) under the provisions of the Arbitration Act No. 42 of 1965 or the Republic of South Africa as amended from time to time).
- 16.3 The Arbitrator shall be, if the question in issue is -
- 16.3.1 Primarily an accounting matter, an independent accountant;
- 16.3.2 Primarily a legal matter, a practising Senior Counsel of not than five years standing as such;
- 16.3.3 Any other matter, an independent person unanimously agreed upon between the parties and failing agreement appointed by the President for the time being of the South African Federation of Civil Engineering Contractors.
- 16.4 If agreement cannot be reached within seven business days after the arbitration has been demanded as to whether the question in issue falls under 16.3.1, 16.3.2 or 16.3.3, then a practising Senior Counsel of not less than five years' standing as such agreed upon between the parties, and failing agreement appointed by the President for the time being of the Society of Chartered Accountants as soon as possible, thereafter, shall determine whether the question in issue falls under 16.3.1, 16.3.2 or 16.3.3 so that an arbitrator can be appointed, and the arbitration can be held and concluded, if possible, within the prescribed period of twenty-one days.
- 16.5 The arbitrator shall decide the matters submitted to him according to what he considers just and equitable in the circumstances and, therefore, the strict rules of law need not be observed or be taken into account by him in arriving at his decision.
- 16.6 The parties irrevocably agree that the decision in those arbitration proceedings -

SAFCEC JOINT VENTURE AGREEMENT

16.6.1 shall be binding on them;

16.6.2 shall be carried into effect;

16.6.3 can be made an order of any court of competent jurisdiction.

17. CONFIDENTIALITY

17.1 All matters relating to this agreement, any negotiations and the contract for the construction of the Works resulting therefrom shall be regarded by the parties hereto as being highly confidential, and shall not be disclosed without prior written consent of the management Committee to any party, person or entity who or which is not a signatory to this Agreement, except where such disclosure is necessary for the fulfilment of this Agreement.

No party shall at any time hereinafter use any technical information, save that in the public domain, acquired from the other parties hereto except for the purposes of fulfilment of the contract.

17.2 No party shall have the right to advertise, or otherwise permit, the dissemination of publicity concerning its participation in the Joint Venture unless:

17.2.1 the relevant material shall make due reference to and acknowledgement of the work of the other parties;

17.2.2 the relevant material shall, for its dissemination is within the control of the party in question, have been approved by the other parties, which approval shall not be unreasonably withheld.

18. ASSIGNMENT

18.1 No party shall cede, assign or in any other way make over any of its rights or obligations under this agreement without the written consent of the other parties except insofar as such assignment or alienation is to any wholly-owned subsidiary company of that party.

18.2 In the event of such assignment or alienation taking place, the initial party shall jointly and severally and in solidum guarantee the obligations or the assignee towards the remaining parties.

19 GENERAL

19.1 No party shall have a claim against the other parties arising out of a failure to secure the contract, except insofar as the parties are liable to bear the joint venture expenses in the Specified Proportions.

19.2 Any changes and supplementary provisions concerning this agreement shall require the written approval of all the parties hereto.

19.3 Variations not effective unless in writing

No variation, modification or waiver of any provision of this agreement, or consent to any departure therefrom, shall in any event be of any force or effect unless unanimous and confirmed in writing and signed by the parties; then such variation, modification, waiver or consent shall be effective only in the specific instance and for the purpose and to the extent for which made or given.

19.4 Additions to the Joint Venture

No additional parties shall be admitted to the Joint Venture unless the parties to this agreement unanimously agree and subject to the Conditions of Contract for the Works. All sub-contractors

SAFCEC JOINT VENTURE AGREEMENT

must be approved by the Management Committee in accordance with procedures to be established by the said Committee.

19.5 Company formation

Should the parties at any time unanimously agree to form a company to take over the interest of the Joint Venture in the contract and the assets of the joint Venture, the parties undertake to enter into a Shareholders Agreement embodying insofar as it is reasonably possible and practicable the terms hereof and, in addition, including therein a provision affording each party a right of pre-emption to any shares in the company which the other may from time to time wish to dispose of. For the Works the formation of a company shall be subject to the General Conditions of Contract for the Works.

19.6 Domicilium

19.6.1 The parties hereto respectively choose domiciliumcitandi et executandi for all purposes of and in connection with this agreement as follows:

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

19.6.2 The parties hereto shall be entitled to change their domicilium from time to time, and any such change shall only be effective upon receipt of notice in writing by the other parties of such change.

19.6.3 All payments to be made pursuant to this agreement, and all notices, demands or communications intended for any party, shall be made or given at such party's domicilium for the time being, and if forwarded by prepaid registered post, shall be deemed to have been made or given seven days after the date of posting unless proved to the contrary.

19.7 Currency

All amounts referred to in this agreement and all monies payable to or by the parties to the Joint Venture in connection with the Joint Venture shall be both calculated and paid in currencies from time to time and at places to be agreed by the Management Committee.

19.8 Governing Law

This agreement shall be construed in accordance with and governed by the laws of Republic of South Africa. The English language version of this agreement shall prevail.

19.9 All correspondence between the parties in regard to this agreement and the contract shall be in the English language.

19.10 Each party shall bear its own costs incurred in the preparation and negotiation of this agreement.

19.11 This agreement over-rides any previous agreement or arrangements concluded between the parties in regard to the works and contract. Notwithstanding the provisions of Clause 19 hereof, the parties agree that any variations to the provision of this agreement and any decisions in terms of which this Joint Venture will undertake further work outside the original scope of the contract referred to earlier, shall require the unanimous agreement of the parties before becoming effective and binding on the parties.

SAFCEC JOINT VENTURE AGREEMENT

19.12 In the interpretation of this agreement, works in the singular shall include the plural and vice versa as the context may require. The headings to clauses shall not be considered part thereof nor shall the words which they contain be taken into account in the interpretation of any clause.

THUS DONE AND SIGNED AT THISDAY OF 20....

For and behalf of:

.....

AS WITNESS:

1.

2.

THUS DONE AND SIGNED AT THISDAY OF 20...

For and behalf of:

.....

AS WITNESS:

1.

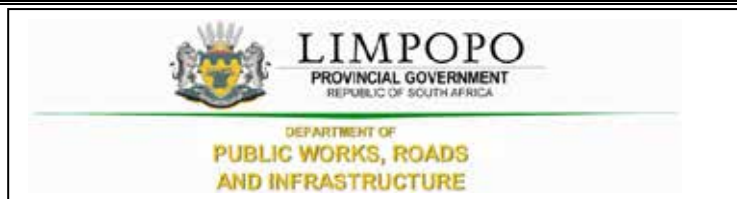
2.



THE CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

PART C.1: 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:

Construction of new school at David Scara Kutumela Primary School

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 the 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)

.....

(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

PART C1.1: AGREEMENT AND CONTRACT DATA

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	Contract Data
Part C3	Pricing Data
Part C4	Scope of Work

Any 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 the 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 authorized representatives signing this agreement, the *Employer* and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the 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 CONTRACT DATA

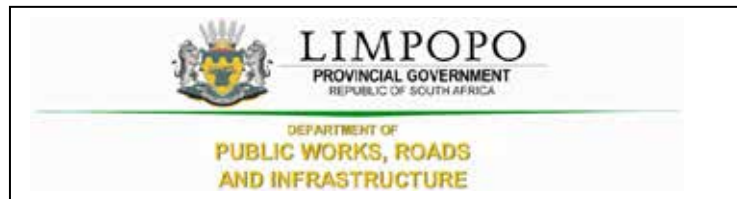
The Conditions of Contract are clauses 1 to 41 of the **JBCC Series 2000 Principal Building Agreement (Edition 4.1 of March 2005)** published by the Joint Building Contracts Committee.

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.



PART C3: PRICING DATA

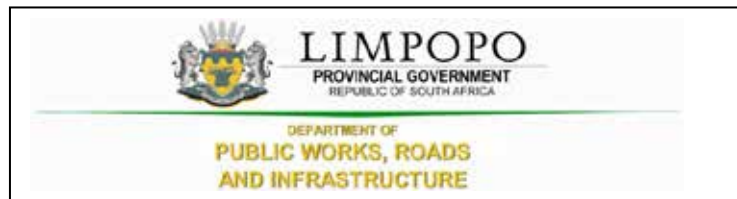


C3.1 PRICING INSTRUCTION

- 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 Works 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 the assessment of payment for additional work that may have to be carried out.
- The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the Main Contractor and can be viewed at any time during office hours up until the completion of the works.
- 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.



PART C4: PROVISIONAL BILLS OF QUANTITIES



C4.1 PRELIMINARIES

SECTION NO. 1

Preliminaries and Generals

BILL NO.1

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"

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".

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

Section No. 1
PRELIMINARIES
Bill No. 1

R

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:

No clause
Fixed: _____ Value related: _____
Time related: _____

OBJECTIVE AND PREPARATION

2 A2 OFFER, ACCEPTANCE AND PERFORMANCE

Clause 2.0
Fixed: _____ Value related: _____
Time related: _____

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: _____

4 A4 DESIGN RESPONSIBILITY

Clause 4.0
Fixed: _____ Value related: _____
Time related: _____

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

item

item

item

item

R

6	A6 SITE REPRESENTATIVE Clause 6.0 Fixed: _____ Value related: _____ Time related: _____	item
7	A7 COMPLIANCE WITH REGULATION Clause 7.0 Note: The provisions herein include inter alia, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor See also clause C10 of Section C - Specific Preliminaries Fixed: _____ Value related: _____ Time related: _____	item
8	A8 WORKS RISK Clause 8.0 Fixed: _____ Value related: _____ Time related: _____	item
9	A9 INDEMNITIES Clause 9.0 Fixed: _____ Value related: _____ Time related: _____	item
10	A10 WORKS INSURANCES Fixed: _____ Value related: _____ Time related: _____ Clause 10.0 Clause 10.0 is amended by the addition of the following clauses:	item
Section No. 1 Carried to Collection		R
PRELIMINARIES		
Bill No. 1		

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		
Section No. 1 PRELIMINARIES Bill No. 1		R	

Carried to Collection

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

- (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

10.7.3 It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the contractors obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested to do so

10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractors default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amount still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole

Fixed: _____ Value related: _____
Time related: _____

item

11 A11 LIABILITY INSURANCES

Clause 11.0

Fixed: _____ Value related: _____
Time related: _____

item

12 A12 EFFECTING INSURANCES

Clause 12.0

Fixed: _____ Value related: _____
Time related: _____

item

13 A13.0 No clause

14 A14 SECURITY

Clause 14.0

Clause 14.1 - 14.8 are amended by replacing them with the following:

14.1. In respect of contracts with a contract sum up to R1 million, the security to be submitted by the contractor to the employer will be as a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)

Section No. 1
PRELIMINARIES
Bill No. 1

Carried to Collection

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

Section No. 1
PRELIMINARIES
Bill No. 1

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

Section No. 1
PRELIMINARIES
Bill No. 1

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

Section No. 1
PRELIMINARIES
Bill No. 1

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

Section No. 1
PRELIMINARIES
Bill No. 1

item

item

item

item

R

18	A18	SETTING OUT OF THE WORKS
	Clause 18.0	
	Fixed:_____Value related:_____	
	Time related:_____	
19	A19	ASSIGNMENT
	Clause 19.0	
	Fixed:_____Value related:_____	
	Time related:_____	
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:_____	
21	A21	SELECTED SUBCONTRACTORS
	Clause 21.0	
	Clause 21 is amended by replacing with:	
	No Clause	
	Fixed:_____Value related:_____	
	Time related:_____	
	Section No. 1	Carried to Collection
	PRELIMINARIES	
	Bill No. 1	

item

item

item

item

R

22	A22	EMPLOYERS DIRECT CONTRACTORS	item		
Clause 22.0					
Fixed:_____Value related:_____					
Time related:_____					
23	A23	CONTRACTOR'S DOMESTIC SUBCONTRACTORS			
Fixed:_____Value related:_____					
Time related:_____					
24	A24	PRACTICAL COMPLETION			
Clause 24.0					
Fixed:_____Value related:_____					
Time related:_____					
25	A25	WORK'S COMPLETION	item		
Clause 25.0					
Fixed:_____Value related:_____					
Time related:_____					
26	A26	FINAL COMPLETION	item		
Clause 26.0					
Fixed:_____Value related:_____					
Time related:_____					
27	A27	LATENT DEFECTS LIABILITY PERIOD	item		
Clause 27.0					
Fixed:_____Value related:_____					
Time related:_____					
28	A27	SECTIONAL COMPLETION	item		
Clause 28.0					
Fixed:_____Value related:_____					
Time related:_____					
Section No. 1			R		
PRELIMINARIES					
Bill No. 1					
Carried to Collection					

[illegible]

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: _____

Section No. 1
PRELIMINARIES
Bill No. 1

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

Section No. 1
PRELIMINARIES
Bill No. 1

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: _____	
Section No. 1 PRELIMINARIES Bill No. 1		Carried to Collection

item		
item		
item		
R		

SUBSTITUTE PROVISIONS

40 A41 STATE CLAUSES

Clause 41.0

Fixed: _____ Value related: _____

Time related: _____

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: _____

SECTION B: JBCC PRELIMINARIES

DEFINITIONS AND INTERPRETATION

42 *Definitions and interpretation*

Fixed: _____ Value related: _____

Time related: _____

DOCUMENTS

43 *Checking of documents*

Fixed: _____ Value related: _____

Time related: _____

44 *Provisional bills of quantities*

Fixed: _____ Value related: _____

Time related: _____

Section No. 1
PRELIMINARIES
Bill No. 1

Carried to Collection

item

item

item

item

item

R

- 45 *Availability of construction documentation*
Fixed: _____ Value related: _____
Time related: _____
- 46 *Interests of agents*
Fixed: _____ Value related: _____
Time related: _____
- 47 *Priced documents*
Fixed: _____ Value related: _____
Time related: _____
- 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: _____
- THE SITE
- 49 *Defined works area*
Fixed: _____ Value related: _____
Time related: _____
- 50 *Geotechnical investigation*
Fixed: _____ Value related: _____
Time related: _____
- 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

item

item

item

item

item

item

Section No. 1
PRELIMINARIES
Bill No. 1

Carried to Collection

R

52	<i>Existing premises occupied</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
53	<i>Previous work dimensional accuracy</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
54	<i>Previous work defects</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
55	<i>Services known</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
56	<i>Services unknown</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
57	<i>Protection of trees</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
58	<i>Articles of value</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
59	<i>Inspection of adjoining properties</i>			
	Fixed: _____ Value related: _____			
	Time related: _____	item		
Section No. 1				
PRELIMINARIES				
Bill No. 1				
Carried to Collection		R		

MANAGEMENT OF CONTRACT60 *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

Section No. 1
PRELIMINARIES
Bill No. 1

Carried to Collection

R

TEMPORARY WORKS AND PLANT69 *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 SERVICES75 *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

Section No. 1
PRELIMINARIES
Bill No. 1

R

78 *Telecommunication facilities*

Fixed: _____ Value related: _____

Time related: _____

item

79 *Ablution facilities*

Fixed: _____ Value related: _____

Time related: _____

item

PRIME COSTS AMOUNTS80 *Responsibility for prime cost amounts*

Fixed: _____ Value related: _____

Time related: _____

item

ATTENDANCE ON N/S SUBCONTRACTORS81 *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

Section No. 1
PRELIMINARIES
Bill No. 1

Carried to Collection

R

FINANCIAL ASPECTS84 *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

GENERAL88 *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

Section No. 1
 PRELIMINARIES
 Bill No. 1

92	<i>Disturbance</i> Fixed: _____ Value related: _____ Time related: _____	item		
93	<i>Environmental disturbance</i> Fixed: _____ Value related: _____ Time related: _____	item		
94	<i>Works cleaning and clearing</i> Fixed: _____ Value related: _____ Time related: _____	item		
95	<i>Vermin</i> Fixed: _____ Value related: _____ Time related: _____	item		
96	<i>Overhand work</i> Fixed: _____ Value related: _____ Time related: _____	item		
97	<i>Instruction manuals and guarantees</i> Fixed: _____ Value related: _____ Time related: _____	item		
98	<i>As built information</i> Fixed: _____ Value related: _____ Time related: _____	item		
99	<i>Tenant installations</i> Fixed: _____ Value related: _____ Time related: _____	item		
Section No. 1 PRELIMINARIES Bill No. 1		Carried to Collection	R	

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

12.1.4 [3.1]	<i>Defined works area</i> Details: Site as per land surveyor		
12.1.5 [3.2]	<i>Geotechnical investigation</i> Details: Refer to Principal Agent		
12.1.6 [3.4]	<i>Existing premises occupies</i> Specific requirements: N/A		
12.1.7 [3.5]	<i>Previous work - dimensional accuracy</i> Details: N/A		
12.1.8 [3.6]	<i>Previous work - defects</i> Details: N/A		
12.1.9 [3.7]	<i>Services - known</i> Details: N/A		
12.1.10 [3.9]	<i>Protection of trees</i> Specific requirements:		
12.1.11 [3.11]	<i>Inspection of adjoining properties</i> Specific requirements:		
12.1.12 [6.2]	<i>Enclosure of the works</i> Specific requirements:		
12.1.13 [6.4.3]	<i>Offices</i> 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.		
Section No. 1 PRELIMINARIES Bill No. 1	Carried to Collection	R	

12.1.14 [6.5]	<p>Main notice board</p> <p>Specific requirements:</p> <p>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>			
12.1.15 [6.6]	<p><i>Subcontractor's notice board</i></p> <p>Specific requirements:</p>	YES/NO		
12.1.16 [7.2]	<p><i>Water</i></p> <p>Option A (by contractor)</p> <p>Option B (by employer - free of charge)</p> <p>Option C (by employer - metered)</p>	<p>YES</p> <p>NO</p> <p>NO</p>		
12.1.17 [7.3]	<p><i>Electricity</i></p> <p>Option A (by contractor)</p> <p>Option B (by employer - free of charge)</p> <p>Option C (by employer - metered)</p>	<p>YES</p> <p>NO</p> <p>NO</p>		
12.1.18 [7.4]	<p><i>Telecommunications</i></p> <p>Telephone</p> <p>Facsimile</p> <p>E-mail</p>	<p>YES</p> <p>YES</p> <p>YES</p>		
12.1.19 [7.5]	<p><i>Ablution facilities</i></p> <p>Option A (by contractor)</p> <p>Option B (by employer)</p>	<p>YES</p> <p>NO</p>		
12.1.20 [11.2]	<p><i>Protection of existing/sectionally occupied works</i></p> <p>Protection is required</p>	NO		
Section No. 1 PRELIMINARIES Bill No. 1	Carried to Collection		R	

12.1.21	<i>Special attendance</i>	
[9.2]	<i>Subcontractor</i> (1) details:	
	<i>Subcontractor</i> (2) details:	
	<i>Subcontractor</i> (3) details:	
	<i>Subcontractor</i> (4) details:	
12.1.22	<i>Protection of works</i>	
[11.1]	Specific requirements	
12.1.23	<i>Disturbance</i>	
[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	
12.1.22	<i>Protection of works</i>	
[11.1]	Specific requirements	
12.1.23	<i>Disturbance</i>	
[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	
12.1.24	<i>Environmental disturbance</i>	
[11.6]	Specific requirements:	
12.2	POST-TENDER INFORMATION	
12.2.1	<i>Payment of preliminaries</i>	
[10.2]	Option A (prorated)	YES/NO
	Option B (calculates)	YES/NO
12.2.2	<i>Adjustment of preliminaries</i>	
[10.3]	Option A (three categories)	YES/NO
	Option B (detailed breakdown)	YES/NO
12.2.3	<i>Additional agreed preliminaries items</i>	
	Details:	
Section No. 1		Carried to Collection
PRELIMINARIES		
Bill No. 1		

R

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: _____

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: _____

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: _____

Section No. 1
PRELIMINARIES
Bill No. 1

Carried to Collection

item

item

item

R

104	C4	<p>IMPORTED MATERIALS AND EQUIPMENT</p> <p>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</p> <p>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)</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>	item		
105	C5	<p>VIEWING THE SITE IN SECURITY AREAS</p> <p>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</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>	item		
106	C6	<p>COMMENCEMENT OF WORKS IN SECURITY AREAS</p> <p>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</p> <p>Fixed: _____ Value related: _____</p> <p>Time related: _____</p>	item		
<p>Section No. 1 PRELIMINARIES</p>			Carried to Collection	R	
<p>Bill No. 1</p>					

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

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

Section No. 1
PRELIMINARIES
Bill No. 1

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: _____
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: _____
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: _____
Section No. 1 PRELIMINARIES Bill No. 1		Carried to Collection	

item

item

item

R

Section No.1

PRELIMINARIES

Bill No.1

COLLECTION

Total Brought Forward from Page No.

Carried Forward

Section No. 1
PRELIMINARIES
Bill No. 1

Page
No

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

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

40

37

38

Carried to Final Summary

Section No. 1
PRELIMINARIES
Bill No. 1



C4.2 BUILDING WORKS

SECTION NO. 2

4 x 4 Classroom Block

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 Classroom Block</u>				
<u>BILL NO. 1</u>				
<u>FOUNDATIONS</u>				
<u>PREAMBLES</u>				
For preambles see " Specification of materials and methods to be used - PW371"				
<u>SITE CLEARANCE ETC</u>				
<u>Site clearance:</u>				
1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m ²	444		
<u>REMOVAL OF TREES, ETC.</u>				
<u>Taking out and removing, grubbing up roots and filling in holes:</u>				
2 Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1		
<u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u>				
<u>Excavation in earth not exceeding 2m deep:</u>				
3 Trenches.	m ³	183		
<u>Extra over trench and hole excavations in earth for excavation:</u>				
4 Soft rock.	m ³	10		
5 Hard rock.	m ³	5		
<u>Risk of collapse of excavations:</u>				
6 Sides of trench and hole excavations not exceeding 1,5m deep.	m ²	410		
<u>Keeping excavations free of water:</u>				
7 Keeping excavations free of all water other than subterranean water.	Item			
<u>Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:</u>				
8 Backfilling to trenches, holes, etc.	m ³	46		
9 Under floors, steps, pavings, etc.	m ³	60		
Carried to Collection			R	
Section No. 2				
Bill No. 1				
Foundations				

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

158
159

Carried To Section Summary

R

Section No. 2
Bill No. 1
Foundations

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 Classroom 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 Aprons cast in panels.	m ³	10		
2 Ramps.	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	m	95		
<u>REINFORCED CONCRETE</u>				
<u>25 MPa/19mm Concrete:</u>				
4 Footings.	m ³	31		
5 Surface beds cast in panels on waterproofing.	m ³	34		
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
6 Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	10		
<u>FINISHING TOP SURFACE OF CONCRETE</u>				
7 Paving to falls.	m ²	95		
8 Ramps to falls.	m ²	4		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>				
<u>(CPAP Work Group No 111)</u>				
<u>Rough Formwork to Sides:</u>				
9 Edges and reveals not exceeding 300mm high or wide.	m	99		
<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>				
10 Not exceeding 300mm wide.	m	40		
Carried to Collection			R	
Section No. 2				
Bill No. 2				
Concrete, Formwork And Reinforcement				

162

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

161
162

Carried To Section Summary

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

R

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 Classroom Block</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	One brick walls	m ²	215	
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>				
2	One brick walls	m ²	589	
<u>BRICKWORK SUNDRIES</u>				
<u>Brickwork reinforcement:</u>				
3	75mm Wide reinforcement built in horizontally.	m	94	
4	150mm Wide reinforcement built in horizontally.	m	2 512	
Carried to Collection			R	
Section No. 2				
Bill No. 3				
Masonry				

165

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

164
165

Carried To Section Summary

R

Section No. 2
Bill No. 3
Masonry

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>					
<u>4 x 4 Classroom Block</u>					
<u>BILL NO. 4</u>					
<u>WATERPROOFING</u>					
<u>PREAMBLES</u>					
For preambles see "Specification of materials and methods to be used - PW371					
<u>DAMPPROOFING OF WALLS AND FLOORS</u>					
<u>One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:</u>					
1	In walls.	m ²	40		
<u>One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:</u>					
2	Under surface beds.	m ²	337		
<u>JOINT SEALANTS ETC</u>					
<u>silicone sealing compound including backing cord, bond breaker, primer, etc</u>					
3	12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	178		
4	12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	68		
Carried To Section Summary				R	
Section No. 2					
Bill No. 4					
Waterproofing					

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>					
<u>4 x 4 Classroom Block</u>					
<u>BILL NO. 5</u>					
<u>ROOF COVERINGS</u>					
<u>PREAMBLES</u>					
For preambles see "Specification of materials and methods to be used - PW 371					
<u>General</u>					
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
<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 quarantine 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	388		
<u>0.58mm galvanised sheet iron, with "Globalcoat" one side in:</u>					
2	Standard type FK3 ridge or hip flashing	m	43		
Carried To Section Summary				R	
Section No. 2					
Bill No. 5					
Roof Coverings					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u> <u>4 x 4 Classroom Block</u> <u>BILL NO. 6</u> <u>CARPENTRY AND JOINERY</u> <u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371 <u>SUPPLEMENTARY PREAMBLES</u> <u>Particle board:</u> Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type. <u>Joinery:</u> Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes. <u>Fixing:</u> Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete. <u>Decorative laminate finish:</u> Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish. <u>PREFABRICATED ROOF TRUSSES, ETC.</u> <u>Plate nailed timber roof truss construction:</u> 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 guarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The guarantee shall be valid for 10(ten) years .				
Carried to Collection			R	
Section No. 2				
Bill No. 6				
Carpentry And Joinery				

		Unit	Quantity	Rate	Amount
	<u>Sawn softwood:</u>				
1	Roof construction to double pitched roof with two hipped ends approximately 370m ² (four classrooms) on plan overall including trusses, rafters, purlins, permanent bracing, etc (measured flat).	No	1		
	<u>ROOF CONSTRUCTION</u>				
	<u>Sawn softwood :</u>				
2	114 x 38mm Wall plates.	m	75		
3	114 x 38mm rafters exceeding 2.4m and not exceeding 3.9m.	m	15		
4	50 x 76mm purlins.	m	140		
5	50 x 250mm laminated beam.	m	43		
	<u>ROOF SUNDRIES</u>				
	<u>Sundries:</u>				
6	Two coats creosote on sawn timbers.	m ²	26		
	<u>EAVES, VERGES, ETC</u>				
	<u>Everite FC77 or equal approved pressed fibre-cement:</u>				
7	10 x 250mm Fascias and barge boards including galvanised steel H-profile jointing strips.	m	80		
	<u>Wrought meranti doors:</u>				
	<u>Wrought meranti doors hung to steel frames:</u>				
8	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.	No	4		
	<u>DOORS ETC</u>				
	<u>40mm semi-solid flush doors with veneer</u>				
9	40mm Door 813 x 2032mm high	No	4		
	<u>FITTINGS</u>				
	<u>Fittings to Classroom Store</u>				
10	Shelving 400mm wide made up of 25mm thick hardwood top and 250 x 250mm high triangular mild steel brackets bolted to wall	m	38		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 6				
	Carpentry And Joinery				

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

169
170

Carried To Section Summary

R

Section No. 2
Bill No. 6
Carpentry And Joinery

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 Classroom 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	337		
<u>Wrought meranti</u>				
2				
19 x 76mm covedccornice nailed to brickwalls	m	169		
<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	337		
4				
Extra over ceiling for hinged trap door size 610 x 610mm	No	4		
Carried To Section Summary			R	
Section No. 2				
Bill No. 7				
Ceilings Partitions And Access Flooring				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 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 100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	4		
<u>LOCKS</u>				
<u>Solid or equal approved:</u>				
2 "Code 630" padlock.	No	4		
<u>'Solid' or equal approved</u>				
3 Code 2252-76 three lever upright mortice lock plugged.	No	8		
<u>SUNDRIES</u>				
<u>Solid or equal approved:</u>				
4 38mm Diameter rubber door stop plugged.	No	8		
<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>				
<u>Vitrex or equal approved:</u>				
5 Pinning board 2400 x 1200mm high plugged.	No	8		
6 Vitrex system enamelled green folding ,writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail plugged.	No	4		
Carried to Collection			R	
Section No. 2				
Bill No. 8				
Ironmongery				

		Unit	Quantity	Rate	Amount
<u>SHELVES ETC</u>					
<u>Proprietary type steel shelving with standard powder coated finish</u>					
7	Heavy duty double slot wall band 1800mm long, plugged	No	63		
8	Heavy duty shelf bracket for 300mm shelf plugged	No	252		
Carried to Collection					
Section No. 2				R	
Bill No. 8					
Ironmongery					

BILL NO. 8
IRONMONGERY
COLLECTION

Page No

Brought Forward from Page

173
174

Carried To Section Summary

Section No. 2
Bill No. 8
Ironmongery

R

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 Classroom Block</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>STEEL BALUSTRADES AND HANDRAILS</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 openning 3No. In each upright, top rail to be 30mm thick x 100mm wide steel</u>				
1 Steel handrails and balustrades 1000mm high	m	10		
<u>Mild Steel Poles</u>				
2 76 x 76 x 3mm mild steel square tubing columns 3m high secured on top of foundation with 5mm thick fixing plate including 10mm dia 4No. bolts	No	13		
Carried to Collection			R	
Section No. 2				
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	4	
<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	4	
<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	36	
6	Window Code 5 (NTY or equal approved), 1143 x 846mm high.	No	4	
<u>STEEL LOUVRES,ETC</u>				
<u>Purpose made louvres:</u>				
7	Triangular shaped (on elevation) residential section louvered ventilators 3138 wide (at the horizontal bottom) x 571mm high overall, filled in with type LC fixed horizontal louver 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. 2				
Bill No. 9				
Metalwork				

BILL NO. 9
METALWORK
COLLECTION

Page No

Brought Forward from Page

176
177

Carried To Section Summary

R

Section No. 2
Bill No. 9
Metalwork

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 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	268		
30mm Thick on floors to receive ceramic tiling.				
<u>GRANOLITHIC</u>				
<u>Untinted wood floated granolithic on concrete</u>				
2	m ²	69		
30mm Thick on floors and landings.				
<u>INTERNAL PLASTER</u>				
<u>Cement plaster steel trowelled, on brickwork</u>				
3	m ²	517		
On walls				
4	m ²	22		
On narrow widths not exceeding 300mm wide				
<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>				
5	m	4		
30 x 3mm Flat section brass dividing strips between different floor finishes.				
Carried To Section Summary			R	
Section No. 2				
Bill No. 10				
Plastering				

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>					
<u>4 x 4 Classroom Block</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>FLOOR TILING</u>					
<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	On floors and landings.	m ²	268		
2	Skirting formed of ceramic tile cut to 300 x 75mm high	m	169		
Carried To Section Summary				R	
Section No. 2					
Bill No. 11					
Tiling					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 Classroom Block</u>				
<u>BILL NO. 12</u>				
<u>PLUMBING AND DRAINAGE</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Concrete pipes:</u>				
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.				
<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.				
<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.				
<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				
Carried to Collection			R	
Section No. 2				
Bill No. 12				
Plumbing And Drainage				

182

		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	100 x 100mm Eaves gutters	m	97		
2	Extra over eaves gutter for angle/corner.	No	4		
3	Extra over eaves gutter for outlet for 75mm pipe.	No	26		
4	75mm Diameter rainwater pipes.	m	104		
5	Extra over rainwater pipe for bend.	No	26		
6	Extra over rainwater pipe for shoe.	No	26		
<u>FIRE APPLIANCES ETC.</u>					
<u>'Chubb' or equal approved:</u>					
7	9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges	No	4		
<u>RAINWATER HARVESTING</u>					
<u>Rainwater harvesting</u>					
8	Allow a sum of R15 000.00/each (Fifteen Thousand Rands) for provision of 5000l Jojo or equal approved tank complete with lid, fittings, tap, concrete plinth as per Architect details	No	2		
Carried to Collection				R	
Section No. 2					
Bill No. 12					
Plumbing And Drainage					

BILL NO. 12
PLUMBING AND DRAINAGE
COLLECTION

Page No

Brought Forward from Page

181
182
183

Carried To Section Summary

R

Section No. 2
Bill No. 12
Plumbing And Drainage

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>					
<u>4 x 4 Classroom Block</u>					
<u>BILL NO. 13</u>					
<u>GLAZING</u>					
<u>PREAMBLES</u>					
For preambles see "Specification of materials and methods to be used - PW371					
<u>GLAZING TO STEEL WITH PUTTY</u>					
<u>5 mm Clear float glass:</u>					
1	Panes not exceeding 0,1m2.	m ²	39		
<u>5 mm obscure glass:</u>					
2	Panes not exceeding 0,1m2.	m ²	20		
Carried To Section Summary				R	
Section No. 2					
Bill No. 13					
Glazing					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u>				
<u>4 x 4 Classroom Block</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 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	517		
<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	337		
3 On fascias and barge boards.	m	97		
<u>ON METAL</u>				
<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4 Door frames	m ²	12		
5 On windows with burglar bars (both sides measured).	m ²	113		
6 On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m ²	35		
7 Steel poles	m	39		
<u>Eaves Gutter</u>				
8 Inside eaves gutter with waterproofing paint	m ²	34		
<u>Prepare,etc as specified and apply two coats of super acrylic Pva paint on:</u>				
9 General surfaces of doors (interior).	m ²	13		
<u>ON WOOD, WOOD BOARD</u>				
<u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u>				
10 On general surfaces of doors.	m ²	13		
11 On laminated beam.	m ²	23		
Carried to Collection			R	
Section No. 2				
Bill No. 14				
Paintwork				

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BILL NO. 14
PAINTWORK
COLLECTION

Page No

Brought Forward from Page

186
187

Carried To Section Summary

R

Section No. 2
Bill No. 14
Paintwork

4 x 4 Classroom Block

SECTION SUMMARY

197

SECTION NO. 3

1 x 4 Grade R Classroom Block

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 1</u>				
<u>FOUNDATIONS</u>				
<u>PREAMBLES</u>				
For preambles see " Specification of materials and methods to be used - PW371"				
<u>SITE CLEARANCE, ETC</u>				
<u>Site Clearance</u>				
1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m ²	292		
<u>REMOVAL OF TREES, ETC.</u>				
<u>Taking out and removing, grubbing up roots and filling in holes:</u>				
2 Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1		
<u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u>				
<u>Excavation in earth not exceeding 2m deep:</u>				
3 Trenches.	m ³	177		
<u>Extra over trench and hole excavations in earth for excavation:</u>				
4 Soft rock.	m ³	13		
5 Hard rock.	m ³	5		
<u>Risk of collapse of excavations:</u>				
6 Sides of trench and hole excavations not exceeding 1,5m deep.	m ²	430		
<u>Keeping excavations free of water:</u>				
7 Keeping excavations free of all water other than subterranean water.	Item			
<u>Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:</u>				
8 Backfilling to trenches, holes, etc.	m ³	90		
9 Under floors, steps, pavings, etc.	m ³	73		
Carried to Collection			R	
Section No. 3				
Bill No. 1				
Foundations				

200

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

191
192

Carried To Section Summary

R

Section No. 3
Bill No. 1
Foundations

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom 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 Aprons cast in panels.	m ³	7		
2 Ramps.	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	m	71		
<u>REINFORCED CONCRETE</u>				
<u>25MPa/19mm Concrete:</u>				
4 Surface beds cast in panels on waterproofing.	m ³	26		
5 Footings.	m ³	23		
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
6 Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	15		
<u>FINISHING TOP SURFACE OF CONCRETE</u>				
<u>Finishing top surfaces</u>				
7 Paving to falls.	m ²	76		
<u>ROUGH FORMWORK</u>				
<u>Rough Formwork to Sides:</u>				
8 Edges and reveals not exceeding 300mm high or wide.	m	91		
<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 Not exceeding 300mm wide.	m	70		
Carried to Collection			R	
Section No. 3				
Bill No. 2				
Concrete, Formwork And Reinforcement				

195

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

194
195

Carried To Section Summary

R

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

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</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	19	
2	One brick walls	m ²	111	
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>				
3	Half brick walls	m ²	58	
4	One brick walls	m ²	398	
<u>BRICKWORK SUNDRIES</u>				
<u>Brickwork reinforcement:</u>				
5	75mm Wide reinforcement built in horizontally.	m	255	
Carried to Collection			R	
Section No. 3				
Bill No. 3				
Masonry				

		Unit	Quantity	Rate	Amount
6	150mm Wide reinforcement built in horizontally.	m	1 964		
	<u>Prestressed fabricated lintels:</u>				
7	110 x 75mm Lintels in lengths not exceeding 3m.	m	15		
	<u>Turning pieces:</u>				
8	220mm Wide turning piece to lintels etc.	m	18		
	<u>Galvanised wire ties etc:</u>				
9	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	71		
	<u>Galvanised hoop iron cramps, ties, etc:</u>				
10	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	No	71		
	<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>				
11	Extra over brickwork for face brickwork.	m ²	217		
12	Extra over brickwork for face brickwork in foundations (Provisional).	m ²	71		
13	Half brick in facings in beamfilling	m ²	65		
	<u>FACE BRICKWORK COPINGS, SILLS, ETC.</u>				
	<u>Brick-on-edge header course copings, sills, etc of face bricks (Prime cost R5 5 00/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:</u>				
14	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	20		
15	230mm Wide sill set sloping and slightly projecting.	m	26		
16	Coping on top of one brick wall pointed on exposed faces	m	33		
	<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>				
17	12 x 152mm Wide sills set flat and slightly projecting.	m	31		
	<u>Weedkiller</u>				
18	Weedkiller under paving	m ²	40		
	Carried to Collection			R	
	Section No. 3				
	Bill No. 3				
	Masonry				

207

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

197
198
199

Carried To Section Summary

R

Section No. 3
Bill No. 3
Masonry

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 4</u>				
<u>WATERPROOFING</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>DAMPPROOFING OF WALLS AND FLOORS</u>				
<u>One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:</u>				
1 In walls.	m ²	30		
<u>One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:</u>				
2 Under surface beds.	m ²	255		
<u>JOINT SEALANTS ETC</u>				
<u>Silicone sealing compound including backing cord, bond breaker, primer, etc</u>				
3 12 x 20mm in expansion joints in floors including raking out expansion joint filler as necessary (Provisional)	m	44		
4 12 x 20mm in vertical expansion joints in walls including raking out expansion joint filler as necessary	m	40		
Carried To Section Summary			R	
Section No. 3				
Bill No. 4				
Waterproofing				

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>					
<u>1 x 4 Grade R Classroom Block</u>					
<u>BILL NO. 5</u>					
<u>ROOF COVERINGS</u>					
<u>PREAMBLES</u>					
For preambles see "Specification of materials and methods to be used - PW 371					
<u>General</u>					
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
<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 quarantine 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	400		
<u>0.58mm galvanised sheet iron, with "Globalcoat" one side in:</u>					
2	Standard type FK3 ridge or hip flashing	m	36		
Carried To Section Summary				R	
Section No. 3					
Bill No. 5					
Roof Coverings					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 6</u>				
<u>CARPENTRY AND JOINERY</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Particle board:</u>				
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.				
<u>Joinery:</u>				
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.				
<u>Fixing:</u>				
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.				
<u>Decorative laminate finish:</u>				
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.				
<u>PREFABRICATED ROOF TRUSSES, ETC.</u>				
<u>Plate nailed timber roof truss construction:</u>				
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 bracing .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 guarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The guarantee shall be valid for 10(ten) years .				
Carried to Collection			R	
Section No. 3				
Bill No. 6				
Carpentry And Joinery				

204

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

203
204

Carried To Section Summary

Section No. 3
Bill No. 6
Carpentry And Joinery

R

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom 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	243		
<u>Meranti cornice</u>				
2				
19 x 76mm coved cornice nailed to brickwork	m	173		
<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	243		
4				
Extra over ceiling for hinged trap door size 610 x 610mm	No	2		
Carried to Collection			R	
Section No. 3				
Bill No. 7				
Ceilings Partitions And Access Flooring				

		Unit	Quantity	Rate	Amount
<u>TOILET CUBICLES (CPAP WORK GROUP NO. 138)</u>					
<u>"Vitrex" cubicles consisting of 20mm thick partitions, doors and stiles of laminated construction with outer skins of vitreous enamelled steel sheets bonded to wood particle board, all framed in natural anodised aluminium channel section beading, top rails and fixing components and fitted with all necessary ironmongery comprising standard indicating bolts, combined coat hooks and door stops, toilet roll holders and rubber buffers</u>					
5	Partition 1800 x 1800mm high	No	3		
6	Door 750 x 1800mm high	No	4		
7	Full stile 210 x 2000mm high	No	6		
8	End stile 145 x 2000mm high	No	5		
9	Wall stile 105 x 2000mm high	No	4		
10	Extra over for chromium plated rising butt hinge	No	4		
11	Extra over for powder coating to aluminium beading, brackets and ironmongery - per cubicle	No	4		
Carried to Collection					R
Section No. 3					
Bill No. 7					
Ceilings Partitions And Access Flooring					

Amount

BILL NO. 7**CEILINGS PARTITIONS AND ACCESS FLOORING****COLLECTION**

Page No

Brought Forward from Page

206

207

Carried To Section Summary

R

Section No. 3

Bill No. 7

Ceilings Partitions And Access Flooring

208

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>					
<u>1 x 4 Grade R Classroom Block</u>					
<u>BILL NO. 8</u>					
<u>FLOOR COVERINGS</u>					
<u>FLOOR COVERINGS</u>					
<u>300 x 300 x 2.5mm semi flexible vinyl tiles</u>					
1	On floors	m ²	18		
<u>POLISH, SEALERS, ETC</u>					
<u>Polish</u>					
2	Wax polish on vinyl flooring	m ²	18		
Carried To Section Summary				R	
Section No. 3					
Bill No. 8					
Floor Coverings					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 9</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" or equal approved:</u>				
1	CZ 80941WC indicator bolt with keep fixed to metal.	No	4	
<u>CATCHES, CABIN HOOKS, ETC</u>				
<u>Solid or equal approved:</u>				
2	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	4	
<u>LOCKS</u>				
<u>Solid or equal approved:</u>				
3	"Code 630" padlock.	No	4	
<u>'Solid" or equal approved</u>				
4	Code 2252-76 three lever upright mortice lock plugged	No	6	
<u>DOOR CLOSERS</u>				
<u>"Yale" or equal approved</u>				
5	Y202RC Door closer with cover fixed to metal	No	1	
<u>BATHROOM FITTINGS</u>				
<u>Kimberley-Clark or equal approved:</u>				
6	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	4	
Carried to Collection			R	
Section No. 3				
Bill No. 9				
Ironmongery				

		Unit	Quantity	Rate	Amount
7	Lockable toilet roll holder plugged.	No	4		
	<u>Chairman Industries or equal approved brushed stainless steel grab rails:</u>				
8	32mm Code DL2 side grab rail, plugged	No	1		
9	32mm Code DL2 rear grab rail, plugged	No	1		
	<u>SUNDRIES</u>				
	<u>Solid or equal approved:</u>				
10	38mm Diameter rubber door stop plugged.	No	4		
	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>				
	<u>Vitrex or equal approved:</u>				
11	Pinning board 2400 x 1200mm high plugged.	No	8		
12	Vitrex system enamelled green folding ,writing board with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged with chalk rail plugged.	No	2		
Carried to Collection				R	
Section No. 3					
Bill No. 9					
Ironmongery					

BILL NO. 9
IRONMONGERY
COLLECTION

Page No

Brought Forward from Page

210

211

Carried To Section Summary

R

Section No. 3
Bill No. 9
Ironmongery

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>					
<u>1 x 4 Grade R Classroom Block</u>					
<u>BILL NO. 10</u>					
<u>STRUCTURAL STEELWORK</u>					
<u>STEEL COLUMNS AND BEAMS</u>					
<u>Mild steel beams in single lengths with flat section bearer and connection plates bolted to 76mm columns</u>					
1	150 x 150 x 75mm beam	m	90.00		
<u>BOLTS, FASTENERS, ETC</u>					
<u>Bolts</u>					
2	High tensile bolts (class 8.8)	Tonnes	1.00		
Carried To Section Summary				R	
Section No. 3					
Bill No. 10					
Structural Steelwork					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 11</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 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 Balustrades including steel handrails approximately 1000mm high fixed to concrete.	m	46		
<u>Mild steel poles</u>				
2 76 x 76 x 3mm mild steel square tubing columns 3m high secured on top of foundation with 5mm thick fixing plate including 10mm dia 4No. bolts	No	12		
<u>WELDED SCREENS, GATES, ETC.</u>				
<u>Gates to external doors</u>				
3 Double gate and frame 1535 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	No	1		
Carried to Collection			R	
Section No. 3				
Bill No. 11				
Metalwork				

	Unit	Quantity	Rate	Amount
<u>COMBINATION DOOR FRAME WITH SECURITY GATE</u>				
<u>Classroom combination door frame with security gate</u>				
4	"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	2	
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1,2mm Rebated frames suitable for half brick walls:</u>				
5	Frame for door 813 x 2032mm high.	No	3	
6	Frame for door 914 x 2032mm high.	No	1	
<u>1,2mm Rebated frames suitable for one brick walls:</u>				
7	Frame for door 813 x 2032mm high.	No	1	
<u>STEEL WINDOWS, DOORS, ETC.</u>				
<u>Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:</u>				
8	Window type NE1, size 533 X 654mm high.	No	9	
9	Window type NG5, 359 x 533mm high.	No	4	
10	Window type 14B-4, 854 x 889mm high.	No	20	
<u>STEEL LOUVRES,ETC</u>				
<u>Purpose made louvres:</u>				
11	Ditto but approximately 3700 x 1000mm high overall	No	2	
Carried to Collection			R	
Section No. 3				
Bill No. 11				
Metalwork				

BILL NO. 11
METALWORK
COLLECTION

Page No

Brought Forward from Page

214
215

Carried To Section Summary

R

Section No. 3
Bill No. 11
Metalwork

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 12</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	18		
2	m ²	168		
<u>GRANOLITHIC</u>				
<u>Untinted wood floated granolithic on concrete</u>				
3	m ²	60		
4	m	16		
<u>INTERNAL PLASTER</u>				
<u>Cement plaster on brickwork:</u>				
5	m ²	413		
6	m ²	9		
<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>				
7	m	6		
Carried To Section Summary			R	
Section No. 3				
Bill No. 12				
Plastering				

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>					
<u>1 x 4 Grade R Classroom Block</u>					
<u>BILL NO. 13</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 10mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere):</u>					
1	On walls in isolated panels, splashbacks, etc.	m ²	45		
2	On narrow widths.	m ²	1		
<u>FLOOR TILING</u>					
<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>					
3	On floors and landings.	m ²	168		
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	94		
Carried To Section Summary				R	
Section No. 3					
Bill No. 13					
Tiling					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 14</u>				
<u>PLUMBING AND DRAINAGE</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Concrete pipes:</u>				
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.				
<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.				
<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.				
<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				
Carried to Collection			R	
Section No. 3				
Bill No. 14				
Plumbing And Drainage				

		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	100 x 100mm Eaves gutters	m	78		
2	Extra over eaves gutter for angle/corner.	No	4		
3	Extra over eaves gutter for stopped end	No	4		
4	Extra over eaves gutter for outlet for 75mm pipe.	No	20		
5	75mm Diameter rainwater pipes.	m	88		
6	Extra over rainwater pipe for bend.	No	20		
7	Extra over rainwater pipe for shoe.	No	20		
<u>SANITARY FITTINGS</u>					
<u>'Citimetal' stainless steel or equal approved:</u>					
8	Series single end bowl overlay sink, size 1200 x 535mm fitted to top of cabinet.	No	2		
<u>"Vaal" or equal approved</u>					
9	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0)	No	4		
10	White vitreous china "Daisy" semi-close coupled 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	5		
11	Protea 750246 or equal approved wall hung paraplegic WC pan with cradle bracket and legs and Kestrel double flap or equal approved white epoxy painted wooden seat (flush valve elsewhere)	No	1		
<u>WASTE UNIONS ETC</u>					
<u>'Cobra Watertech' or equal approved</u>					
12	38mm "Cobra 316" unslotted waste and plug with chain	No	4		
Carried to Collection				R	
Section No. 3					
Bill No. 14					
Plumbing And Drainage					

230

		Unit	Quantity	Rate	Amount
<u>WATER SUPPLIES</u>					
<u>Class 9 uPVC pressure pipes:</u>					
32	63mm Pipes laid in and including trenches not exceeding 1000mm deep	m	80		
<u>Extra over uPVC pressure pipes for solvent welded pressure fittings:</u>					
33	63mm Elbow	No	15		
34	63mm Tee	No	8		
35	63mm Reducer.	No	4		
<u>Class o copper pipes:</u>					
36	15mm Pipes	m	100		
37	22mm Pipes.	m	80		
<u>Extra over class o copper pipes for capillary fittings:</u>					
38	15mm Fittings.	No	40		
39	22mm Fittings.	No	35		
<u>Copper overflow and service pipes:</u>					
40	15mm Service pipe 300mm girth.	No	1		
<u>Sundries:</u>					
41	450 x 450mm cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1		
42	'ZIP Hydroboil code 3800' 25 litre white powder coated water boiler as manufactured by Franke Kitchen Systems, plugged and screwed to wall.	No	1		
<u>ELECTRICAL WATER HEATERS</u>					
<u>"Kwikot"</u>					
43	150 litre Horizontally floor mounted electric water heater	No	1		
<u>Testing:</u>					
44	Testing water pipe system.	Item			
<u>FIRE APPLIANCES ETC.</u>					
<u>'Chubb' or equal approved:</u>					
45	9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges	No	3		
Carried to Collection				R	
Section No. 3					
Bill No. 14					
Plumbing And Drainage					

232

BILL NO. 14
PLUMBING AND DRAINAGE
COLLECTION

Page No

Brought Forward from Page

219
220
221
222
223
224

Carried To Section Summary

R

Section No. 3
Bill No. 14
Plumbing And Drainage

234

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>1 x 4 Grade R Classroom Block</u>				
<u>BILL NO. 16</u>				
<u>PAINTWORK</u>				
<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 On interior walls.	m ²	413		
<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	255		
3 On fascias and barge boards.	m	78		
<u>ON METAL</u>				
<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4 Door frames	m ²	9		
5 On windows with burglar bars (both sides measured).	m ²	38		
6 On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m ²	13		
7 On steel poles and members	m	126		
<u>Inside eaves gutters</u>				
8 Inside eaves gutters with waterproofing based paint	m ²	28		
<u>Prepare,etc as specified and apply two coats of super acrylic Pva paint on:</u>				
9 General surfaces of doors (interior).	m ²	27		
<u>ON WOOD, WOOD BOARD</u>				
<u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u>				
10 On doors	m ²	7		
11 On laminated beam.	m ²	13		
Carried to Collection			R	
Section No. 3				
Bill No. 16				
Paintwork				

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BILL NO. 16
PAINTWORK
COLLECTION

Page No

Brought Forward from Page

227
228

Carried To Section Summary

R

Section No. 3
Bill No. 16
Paintwork

Amount

SECTION NO. 3**1 x 4 Grade R Classroom Block****SECTION SUMMARY**

Bill No.

Page

1	FOUNDATIONS	193
2	CONCRETE, FORMWORK AND REINFORCEMENT	196
3	MASONRY	200
4	WATERPROOFING	201
5	ROOF COVERINGS	202
6	CARPENTRY AND JOINERY	205
7	CEILINGS PARTITIONS AND ACCESS FLOORING	208
8	FLOOR COVERINGS	209
9	IRONMONGERY	212
10	STRUCTURAL STEELWORK	213
11	METALWORK	216
12	PLASTERING	217
13	TILING	218
14	PLUMBING AND DRAINAGE	225
15	GLAZING	226
16	PAINTWORK	229

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>SECTION NO. 4</u>				
<u>Medium Administration Block</u>				
<u>BILL NO. 1</u>				
<u>FOUNDATIONS</u>				
<u>PREAMBLES</u>				
For preambles see " Specification of materials and methods to be used - PW371"				
<u>SITE CLEARANCE ETC</u>				
<u>Site clearance:</u>				
1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m ²	537		
<u>REMOVAL OF TREES, ETC.</u>				
<u>Taking out and removing, grubbing up roots and filling in holes:</u>				
2 Tree stump exceeding 200mm and not exceeding 500mm girth.	No	1		
<u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u>				
<u>Excavation in earth not exceeding 2m deep:</u>				
3 Trenches.	m ³	119		
<u>Extra over trench and hole excavations in earth for excavation:</u>				
4 Soft rock.	m ³	9		
5 Hard rock.	m ³	5		
<u>Risk of collapse of excavations:</u>				
6 Sides of trench and hole excavations not exceeding 1,5m deep.	m ²	352		
<u>Keeping excavations free of water:</u>				
7 Keeping excavations free of all water other than subterranean water.	Item			
<u>Earth filling obtained from excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO:</u>				
8 Backfilling to trenches, holes, etc.	m ³	23		
9 Under floors, steps, pavings, etc.	m ³	42		
Carried to Collection			R	
Section No. 4				
Bill No. 1				
Foundations				

241

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

232
233

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 Aprons cast in panels.	m ³	11		
2 Ramps.	m ³	4		
3 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	79		
<u>REINFORCED CONCRETE</u>				
<u>25MPa/19mm Concrete:</u>				
4 Surface beds cast in panels on waterproofing.	m ³	27		
5 Footings.	m ³	27		
6 Slabs.	m ³	2		
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
7 Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	20		
<u>FINISHING TOP SURFACE OF CONCRETE</u>				
8 Paving to falls.	m ²	79		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>				
<u>Rough Formwork to Sides:</u>				
9 Edges and reveals not exceeding 300mm high or wide.	m	25		
<u>Rough Formwork to Soffits:</u>				
10 Slabs propped up exceeding 1.5 and not exceeding 3.5m high.	m ²	10		
Carried to Collection			R	
Section No. 4				
Bill No. 2				
Concrete, Formwork And Reinforcement				

244

BILL NO. 2
CONCRETE, FORMWORK AND REINFORCEMENT
COLLECTION

Page No

Brought Forward from Page

235
236

Carried To Section Summary

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

R

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>Medium Administration Block</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	36	
2	One brick walls	m ²	135	
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>				
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			R	
Section No. 4				
Bill No. 3				
Masonry				

		Unit	Quantity	Rate	Amount
	<u>BRICKWORK SUNDRIES</u>				
	<u>Brickwork reinforcement:</u>				
7	75mm Wide reinforcement built in horizontally.	m	749		
8	150mm Wide reinforcement built in horizontally.	m	3 125		
	<u>Prestressed fabricated lintels:</u>				
9	110 x 75mm Lintels in lengths not exceeding 3m.	m	55		
	<u>Turning pieces:</u>				
10	110mm Wide turning piece to lintels etc.	m	55		
11	220mm Wide turning piece to lintels etc.	m	20		
	<u>Galvanised wire ties etc:</u>				
12	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork (Provisional)	No	125		
	<u>Galvanised hoop iron cramps, ties, etc:</u>				
13	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork (Provisional)	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	Extra over brickwork for face brickwork.	m ²	297		
15	Extra over brickwork for face brickwork in foundations (Provisional).	m ²	61		
16	Extra over brickwork for face brickwork to piers.	m ²	4		
17	Half brick in facings in beamfilling	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 5 00/1000 delivered to site excluding VAT) and pointed with recessed joints on all exposed faces:</u>				
18	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	54		
19	Extra over brickwork for brick-on-edge header course lintel pointed on face and 220mm soffit	m	17		
20	110mm cut brick Wide sills set flat	m	14		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 3				
	Masonry				

		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					

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

238
239
240

Carried To Section Summary

R

Section No. 4
Bill No. 3
Masonry

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>					
<u>Medium Administration Block</u>					
<u>BILL NO. 4</u>					
<u>WATERPROOFING</u>					
<u>PREAMBLES</u>					
For preambles see "Specification of materials and methods to be used - PW371					
<u>DAMPPROOFING OF WALLS AND FLOORS</u>					
<u>One layer of 375 micron Consol Plastics Brikgrid</u>					
<u>DPC embossed damp proof course:</u>					
1	In walls.	m ²	38		
<u>One layer of 250 micron Consol Plastics Gunplas</u>					
<u>USB Green waterproof sheeting sealed at laps with</u>					
<u>Gunplas Pressure Sensitive Tape:</u>					
2	Under surface beds.	m ²	297		
<u>JOINT SEALANTS ETC</u>					
<u>Silicone sealing compound including backing cord,</u>					
<u>bond breaker,primer,etc</u>					
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				R	
Section No. 4					
Bill No. 4					
Waterproofing					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>Medium Administration Block</u>				
<u>BILL NO. 5</u>				
<u>ROOF COVERINGS</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW 371				
<u>General</u>				
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>				
<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 guarantee 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 "Globalcoat" one side in:</u>				
2 Standard type FK3 ridge or hip flashing	m	26		
3 Standard valley flashing	m	16		
Carried To Section Summary			R	
Section No. 4				
Bill No. 5				
Roof Coverings				

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

245

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

244
245

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			R	
Section No. 4				
Bill No. 7				
Ceilings Partitions And Access Flooring				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>Medium Administration 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>HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC</u>				
<u>"Solid" or equal approved:</u>				
1	150mm 8052-150 Brass flush bolt with keep fixed to metal.	No	2	
2	150mm 8052-150 Brass flush bolt with keep let into concretet.	No	2	
3	CZ 80941WC indicator bolt with keep fixed to metal.	No	2	
<u>CATCHES, CABIN HOOKS, ETC</u>				
<u>Solid or equal approved:</u>				
4	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	4	
<u>LOCKS</u>				
<u>Solid or equal approved:</u>				
5	"Code 630" padlock.	No	2	
<u>'Solid" or equal approved</u>				
6	CZ682-24-95SC"Gower" two lever lockset.	No	11	
<u>DOOR CLOSERS</u>				
<u>"Yale" or equal approved</u>				
7	Y202RC Door closer with cover fixed to metal	No	2	
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	19mm Diameter chromium plated towel rail 900mm long including flanged end brackets.	No	2		
9	Lockable toilet roll holder plugged.	No	2		
<u>SUNDRIES</u>					
<u>Solid or equal approved:</u>					
10	38mm Diameter rubber door stop plugged.	No	15		
<u>MATS</u>					
<u>Squeegee or equal approved</u>					
11	1500 x 800 x 17mm Door mat laid loose in mat surround fixed with 25 x 25mm aluminium angle plugged to concrete (Provisional).	No	2		
<u>VERTICAL AND ROLLER BLINDS</u>					
<u>127mm wide non-fade material vertical blinds as per "Windowvert" or similar approved ,fitted as per manufacture's instructions</u>					
12	To fit window 2 044 x 954mm high.	No	1		
13	To fit window 1 511 x 1 245mm high.	No	14		
14	To fit window 1 022 x 1 224mm high.	No	3		
15	To fit window 533 x 949mm high.	No	5		
<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>					
<u>Vitrex or equal approved:</u>					
16	Pinning board 2400 x 1200mm high plugged.	No	1		
17	Pinning board 3000 x 1200mm high plugged.	No	4		
<u>STEEL LOCKERS</u>					
<u>Greenfield steel lockers with standard baked enamel finish</u>					
18	Double door steel cupboard 914 x 457 x 1828mm high with five shelves bolted to brickwork.	No	4		
Carried to Collection				R	
Section No. 4					
Bill No. 8					
Ironmongery					

BILL NO. 8
IRONMONGERY
COLLECTION

Page No

Brought Forward from Page

248
249

Carried To Section Summary

R

Section No. 4
Bill No. 8
Ironmongery

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>Medium Administration Block</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>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 Balustrades including steel handrails approximately 1000mm high fixed to concrete.	m	16		
<u>WELDED SCREENS, GATES, ETC.</u>				
<u>Gates to external doors</u>				
2 Double gate and frame size 1613 x 2032mm high overall as per Architectural drawing	No	2		
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1,2mm Rebated frames suitable for half brick walls:</u>				
3 Frame for door 813 x 2032mm high.	No	10		
<u>1,2mm Rebated frames suitable for one brick walls:</u>				
4 Frame for door 813 x 2032mm high.	No	1		
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	Window type SWE37S/SWE37S, size 2044 x 954mm high.	No	1		
6	Window type SWE418, size 1511 x 1245mm high.	No	14		
7	Window type SW37, size 1022 x 1224mm high.	No	3		
8	Window type SWE31S, size 533 x 949mm high.	No	5		
9	Composite window type NG9/D4HS, size 1511 x 1623mm high.	No	1		
<u>STEEL STRONGROOM DOORS, VENTILATORS, ETC.</u>					
<u>Strongroom doors etc. suitable for 220mm walls fixed to brickwork or concrete</u>					
10	Double ended strongroom ventilator.	No	1		
11	Record room door and frame 1030 x 2010mm high overall with a mass of 324kg, including one 7lever security lock and wall mounted door stop	No	1		
<u>ALUMINIUM DOORS AND WINDOWS, ETC</u>					
<u>Purpose made natural anodised aluminium windows glazed with 6.38mm thick laminated safety glass and plugged to brickwall or concrete</u>					
12	Window 1525 x 1300mm high overall in clear panes.	No	3		
13	Window 2400 x 1300mm high overall in clear panes.	No	1		
<u>Purpose made natural anodised aluminium doors glazed with 6mm thick laminated safety glass and plugged to brickwall or concrete</u>					
14	Double door size 1575 x 2125mm high in four panes with each leaf side hung and one pair type TS550 satin chromium plated double action floor spring hinges with standard open feature, including adjustable top centre and box let into concrete, two double cylinder lockset, and two pairs of AL5512-300BB ABL aluminium pull handles fixing back to back.	No	2		
<u>SECURITY BARRIERS</u>					
15	Trellidoor 1600 x 2125mm high plugged.	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					

BILL NO. 9
METALWORK
COLLECTION

Page No

Brought Forward from Page

251
252
253

Carried To Section Summary

R

Section No. 4
Bill No. 9
Metalwork

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

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>					
<u>Medium Administration Block</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 10mm White glazed ceramic tiles fixed with adhesive to plaster (plaster elsewhere):</u>					
1	On walls in isolated panels, splashbacks, etc.	m ²	32		
2	On narrow widths.	m ²	1		
<u>FLOOR TILING</u>					
<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>					
3	On floors and landings.	m ²	297		
4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	211		
Carried To Section Summary				R	
Section No. 4					
Bill No. 11					
Tiling					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u> <u>Medium Administration Block</u> <u>BILL NO. 12</u> <u>PLUMBING AND DRAINAGE</u> <u>PREAMBLES</u> For preambles see "Specification of materials and methods to be used - PW371 <u>SUPPLEMENTARY PREAMBLES</u> <u>Concrete pipes:</u> Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings. <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. <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. <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				
Carried to Collection			R	
Section No. 4				
Bill No. 12				
Plumbing And Drainage				

		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	100 x 100mm Eaves gutters	m	79		
2	Extra over eaves gutter for angle/corner.	No	12		
3	Extra over eaves gutter for stopped end	No	6		
4	Extra over eaves gutter for outlet for 75mm pipe.	No	12		
5	75mm Diameter rainwater pipes.	m	48		
6	Extra over rainwater pipe for bend.	No	12		
7	Extra over rainwater pipe for shoe.	No	12		
<u>SANITARY FITTINGS</u>					
<u>'Citimetal' stainless steel or equal approved:</u>					
8	Series single end bowl overlay sink, size 1200 x 535mm fitted to top of cabinet.	No	1		
<u>"Vaal" or equal approved</u>					
9	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0)	No	3		
10	White vitreous china "Daisy" semi-close coupled 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	2		
<u>WASTE UNIONS ETC</u>					
<u>'Cobra Watertech" or equal approved</u>					
11	38mm "Cobra 316" unslotted waste and plug with chain	No	1		
<u>TRAPS ETC</u>					
<u>"Marley' or equal approved</u>					
12	40mm Flexi butyl rubber trap with reseal "P" trap	No	1		
Carried to Collection				R	
Section No. 4					
Bill No. 12					
Plumbing And Drainage					

		Unit	Quantity	Rate	Amount
	<u>"Cobra Watertech" or equal approved</u>				
13	"Cobra Ref. 365/40" CP Bottle trap.	No	2		
	<u>TAPS, VALVES, ETC</u>				
	<u>'Cobra Watertech' or equal approved:</u>				
14	"Cobra Rf. 107EC-15" Bib tap plugged	No	3		
15	15mm Gate valves plugged	No	6		
16	"Cobra Ref. 232/350" Angle regulating valve	No	2		
17	"Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	1		
	<u>SANITARY PLUMBING</u>				
	<u>uPVC pipes:</u>				
18	50mm Pipes	m	60		
19	110mm Pipes.	m	55		
20	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	25		
21	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	25		
	<u>Extra over uPVC pipes for fittings:</u>				
22	50mm Bend.	No	10		
23	100mm Bend.	No	8		
24	110mm Junction.	No	6		
25	50mm Junction.	No	12		
26	110mm Reducing junction.	No	6		
27	110mm Double junction.	No	5		
28	110mm Pan connector	No	2		
29	110mm "G1 Two-way " vent valve	No	2		
	<u>Sundries:</u>				
30	Testing waste pipe system.	Item			
	<u>WATER SUPPLIES</u>				
	<u>Class 9 uPVC pressure pipes:</u>				
31	63mm Pipes laid in and including trenches not exceeding 1000mm deep	m	60		
	Carried to Collection			R	
	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	63mm Elbow	No	6		
33	63mm Tee	No	4		
34	63mm Reducer.	No	4		
	<u>Class o copper pipes:</u>				
35	15mm Pipes	m	30		
36	22mm Pipes.	m	40		
	<u>Extra over class o copper pipes for capillary fittings:</u>				
37	15mm Fittings.	No	20		
38	22mm Fittings.	No	15		
	<u>Copper overflow and service pipes:</u>				
39	15mm Service pipe 300mm girth.	No	1		
	<u>Sundries:</u>				
40	450 x 450mm cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1		
41	'ZIP Hydroboil code 3800' 25 litre white powder coated water boiler as manufactured by Franke Kitchen Systems, plugged and screwed to wall.	No	1		
	<u>ELECTRICAL WATER HEATERS</u>				
	<u>"Kwikot"</u>				
42	150 litre Horizontally floor mounted electric water heater	No	1		
	<u>Testing:</u>				
43	Testing water pipe system.	Item			
	<u>FIRE APPLIANCES ETC.</u>				
	<u>'Chubb' or equal approved:</u>				
44	'Everyway' hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket.	No	1		
45	9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges	No	2		
	Carried to Collection				
	Section No. 4				
	Bill No. 12				
	Plumbing And Drainage				

270

Amount

BILL NO. 12**PLUMBING AND DRAINAGE****COLLECTION**

Page No

Brought Forward from Page

257

258

259

260

261

262

Carried To Section Summary

R

Section No. 4

Bill No. 12

Plumbing And Drainage

264

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>Medium Administration Block</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 FLOATED PLASTER</u>				
<u>Prepare , etc as specified and apply two coats of super acrylic paint:</u>				
1 On interior walls.	m ²	658		
<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	297		
3 On fascias and barge boards.	m	172		
<u>ON METAL</u>				
<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4 Door frames	m ²	16		
5 On windows with burglar bars (both sides measured).	m ²	74		
6 On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m ²	21		
<u>Inside eaves gutter</u>				
7 Inside eaves gutter with waterproofing paint	m ²	60		
<u>ON WOOD, WOOD BOARD</u>				
<u>Prepare,etc as specified and apply two coats of super acrylic Pva paint on:</u>				
8 General surfaces of doors (interior).	m ²	36		
<u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u>				
9 On open slatted seating.	m ²	9		
10 On laminated beam.	m ²	3		
11 On timber surfaces	m ²	1		
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	234
2	CONCRETE, FORMWORK AND REINFORCEMENT	237
3	MASONRY	241
4	WATERPROOFING	242
5	ROOF COVERINGS	243
6	CARPENTRY AND JOINERY	246
7	CEILINGS PARTITIONS AND ACCESS FLOORING	247
8	IRONMONGERY	250
9	METALWORK	254
10	PLASTERING	255
11	TILING	256
12	PLUMBING AND DRAINAGE	263
13	GLAZING	264
14	PAINTWORK	265

Carried to Final Summary

R

Section No. 4
SECTION SUMMARY

SECTION NO. 5

8 x 4 Waterborne Toilet Blocks

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

277

BILL NO. 1
FOUNDATIONS
COLLECTION

Page No

Brought Forward from Page

268
269

Carried To Section Summary

Section No. 5
Bill No. 1
Foundations

R

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</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 Aprons cast in panels.	m ³	2		
2 Ramps.	m ³	1		
3 Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	29		
<u>REINFORCED CONCRETE</u>				
<u>25 MPa/19mm Concrete:</u>				
4 Surface beds cast in panels on waterproofing.	m ³	2		
5 Footings.	m ³	7		
6 Slabs	m ³	2		
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
7 Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional).	Sets	5		
<u>FINISHING TOP SURFACE OF CONCRETE</u>				
8 Paving to falls.	m ²	17		
9 Ramps to falls.	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 Edges and reveals not exceeding 300mm high or wide.	m	6		
11 Formwork to soffits of slabs	m ²	9		
Carried to Collection			R	
Section No. 5				
Bill No. 2				
Concrete, Formwork And Reinforcement				

Amount

BILL NO. 2**CONCRETE, FORMWORK AND REINFORCEMENT****COLLECTION**

Page No

Brought Forward from Page

271

272

Carried To Section Summary

R

Section No. 5

Bill No. 2

Concrete, Formwork And Reinforcement

273

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</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	11	
2	One brick walls	m ²	15	
<u>BRICKWORK IN SUPERSTRUCTURE</u>				
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>				
3	Half brick walls	m ²	18	
4	Half brick walls in beam filling.	m ²	2	
5	One brick walls	m ²	69	
Carried to Collection			R	
Section No. 5				
Bill No. 3				
Masonry				

		Unit	Quantity	Rate	Amount
<u>BRICKWORK SUNDRIES</u>					
<u>Brickwork reinforcement:</u>					
6	75mm Wide reinforcement built in horizontally.	m	64		
7	150mm Wide reinforcement built in horizontally.	m	194		
<u>Turning pieces:</u>					
8	110mm Wide turning piece to lintels etc.	m	5		
9	220mm Wide turning piece to lintels etc.	m	2		
<u>Galvanised wire ties etc:</u>					
10	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork.(Provisional)	No	24		
<u>Galvanised hoop iron cramps, ties, etc:</u>					
11	30 x 1,6mm Cramp 500mm long with one end fixed to wood and other end built into brickwork.(Provisional)	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	Extra over brickwork for face brickwork.	m ²	79		
13	Extra over brickwork for face brickwork in foundations (Provisional).	m ²	10		
14	Extra over brickwork for face brickwork to piers.	m ²	2		
15	Half brick in facings in beamfilling	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	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit.	m	2		
17	230mm Wide sill set sloping and slightly projecting.	m	5		
18	Coping on top of one brick wall pointed on exposed faces	m	16		
Carried to Collection				R	
Section No. 5					
Bill No. 3					
Masonry					

276

BILL NO. 3
MASONRY
COLLECTION

Page No

Brought Forward from Page

274
275
276

Carried To Section Summary

R

Section No. 5
Bill No. 3
Masonry

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>					
<u>8 x 4 Waterborne Toilet Blocks</u>					
<u>BILL NO. 4</u>					
<u>WATERPROOFING</u>					
<u>PREAMBLES</u>					
For preambles see "Specification of materials and methods to be used - PW371					
<u>DAMPPROOFING OF WALLS AND FLOORS</u>					
<u>One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:</u>					
1	In walls.	m ²	10		
<u>One layer of 250 micron Consol Plastics Gunplas USB Green waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:</u>					
2	Under surface beds.	m ²	16		
<u>JOINT SEALANTS ETC</u>					
<u>silicone sealing compound including backing cord, bond breaker, primer, etc</u>					
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				R	
Section No. 5					
Bill No. 4					
Waterproofing					

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>					
<u>8 x 4 Waterborne Toilet Blocks</u>					
<u>BILL NO. 5</u>					
<u>ROOF COVERINGS</u>					
<u>PREAMBLES</u>					
For preambles see "Specification of materials and methods to be used - PW 371					
<u>General</u>					
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>					
<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 quarantine 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	20		
<u>0.58mm galvanised sheet iron, with "Globalcoat" one side in:</u>					
2	Standard type FK3 ridge or hip flashing	m	8		
Carried To Section Summary				R	
Section No. 5					
Bill No. 5					
Roof Coverings					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</u>				
<u>BILL NO. 6</u>				
<u>CARPENTRY AND JOINERY</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Particle board:</u>				
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.				
<u>Joinery:</u>				
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.				
<u>Fixing:</u>				
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.				
<u>Decorative laminate finish:</u>				
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.				
<u>PREFABRICATED ROOF TRUSSES, ETC.</u>				
<u>Plate nailed timber roof truss construction:</u>				
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 bracing .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 guarantee that the trusses are designed, manufactured, and erected, to support the roof coverings specified. The guarantee shall be valid for 10(ten) years .				
Carried to Collection			R	
Section No. 5				
Bill No. 6				
Carpentry And Joinery				

281

BILL NO. 6
CARPENTRY AND JOINERY
COLLECTION

Page No

Brought Forward from Page

280
281

Carried To Section Summary

Section No. 5
Bill No. 6
Carpentry And Joinery

R

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</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	16		
<u>Wrought softwood</u>				
2				
19 x 76mm cornices nailed	m	16		
<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	16		
4				
Extra over ceiling for hinged trap door size 610 x 610mm	No	1		
Carried To Section Summary			R	
Section No. 5				
Bill No. 7				
Ceilings Partitions And Access Flooring				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</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	100mm cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	2	
<u>LOCKS</u>				
<u>Solid or equal approved:</u>				
2	"Code 630" padlock.	No	2	
<u>'Solid" or equal approved</u>				
3	CZ682-24-95SC"Gower" two lever lockset.	No	4	
4	CZ682-24-95SC"Gower" three lever lockset.	No	2	
<u>SUNDRIES</u>				
<u>Solid or equal approved:</u>				
5	38mm Diameter rubber door stop plugged.	No	6	
<u>Lockable toilet roll holder</u>				
6	Lockable toilet roll holder plugged	No	4	
Carried To Section Summary			R	
Section No. 5				
Bill No. 8				
Ironmongery				

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</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>WELDED SCREENS, GATES, ETC.</u>				
<u>Gates to external doors</u>				
1				
Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.				
	No	2		
<u>PRESSED STEEL DOOR FRAMES</u>				
<u>1,2mm Rebated frames suitable for half brick walls:</u>				
2				
Frame for door 813 x 2032mm high.				
	No	4		
<u>1,2mm Rebated frames suitable for one brick walls:</u>				
3				
Frame for door 813 x 2032mm high				
	No	2		
<u>STEEL WINDOWS, DOORS, ETC.</u>				
<u>Standard residential windows with 12 x 12(B33) solid burglar bars to all sashes:</u>				
4				
Window type NE1, 533 x 654mm high				
	No	4		
Carried to Collection			R	
Section No. 5				
Bill No. 9				
Metalwork				

286

BILL NO. 9
METALWORK
COLLECTION

Page No

Brought Forward from Page

285
286

Carried To Section Summary

R

Section No. 5
Bill No. 9
Metalwork

288

		Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>					
<u>8 x 4 Waterborne Toilet Blocks</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 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>					
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				R	
Section No. 5					
Bill No. 11					
Tiling					

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</u>				
<u>BILL NO. 12</u>				
<u>PLUMBING AND DRAINAGE</u>				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>PREAMBLES</u>				
For preambles see "Specification of materials and methods to be used - PW371				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Concrete pipes:</u>				
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.				
<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.				
<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.				
<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				
Carried to Collection			R	
Section No. 5				
Bill No. 12				
Plumbing And Drainage				

291

		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	100 x 100mm Eaves gutters	m	18		
2	Extra over eaves gutter for angle/corner.	No	4		
3	Extra over eaves gutter for outlet for 75mm pipe.	No	4		
4	75mm Diameter rainwater pipes.	m	16		
5	Extra over rainwater pipe for bend.	No	4		
6	Extra over rainwater pipe for shoe.	No	4		
<u>SANITARY FITTINGS</u>					
<u>"Vaal" or equal approved</u>					
7	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and including two bolts(code 84467Z0)	No	4		
8	White vitreous china "Daisy" semi-close coupled 90degree outlet open rim washdown pan (code 774000) and matching 9litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	4		
<u>WASTE UNIONS ETC</u>					
<u>'Cobra Watertech" or equal approved</u>					
9	38mm "Cobra 316" unslotted waste and plug with chain	No	4		
<u>TRAPS ETC</u>					
<u>"Marley' or equal approved</u>					
10	40mm Flexi butyl rubber trap with reseal "P" trap	No	4		
<u>"Cobra Watertech" or equal approved</u>					
11	"Cobra Ref. 365/40" CP Bottle trap.	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	"Cobra Rf. 107EC-15" Bib tap	No	4		
13	15mm Gate valves	No	8		
14	"Cobra Ref. 232/350' Angle regulating valve	No	4		
	<u>SANITARY PLUMBING</u>				
	<u>uPVC pipes:</u>				
15	50mm Pipes	m	30		
16	110m Pipes.	m	50		
17	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	20		
18	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds.	m	30		
	<u>Extra over uPVC pipes for fittings:</u>				
19	50mm Bend.	No	6		
20	100mm Bend.	No	4		
21	110mm Junction.	No	4		
22	50mm Junction.	No	4		
23	110mm Reducing junction.	No	4		
24	110mm Double junction.	No	4		
25	110mm Pan connector	No	4		
26	110mm "G1 Two-way " vent valve	No	4		
	<u>Sundries:</u>				
27	Testing waste pipe system.	Item			
	<u>WATER SUPPLIES</u>				
	<u>Class 9 uPVC pressure pipes:</u>				
28	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>				
29	63mm Elbow	No	2		
30	63mm Tee	No	2		
	Carried to Collection			R	
	Section No. 5				
	Bill No. 12				
	Plumbing And Drainage				

		Unit	Quantity	Rate	Amount
31	63mm Reducer.	No	1		
	<u>Class o copper pipes:</u>				
32	15mm Pipes	m	20		
33	22mm Pipes.	m	15		
	<u>Extra over class o copper pipes for capillary fittings:</u>				
34	15mm Fittings.	No	10		
35	22mm Fittings.	No	10		
	<u>Copper overflow and service pipes:</u>				
36	15mm Service pipe 300mm girth.	No	1		
	<u>Sundries:</u>				
37	450 x 450m cast iron stopcock box including brick chamber below not exceeding 750mm deep internally.	No	1		
	<u>FIRE APPLIANCES ETC.</u>				
	<u>'Chubb' or equal approved:</u>				
38	9kg Dry chemical fire extinguisher fixed on and including 22mm thick x 400 x 200mm wide meranti timber back plate with chamfered edges	No	2		
Carried to Collection				R	
Section No. 5					
Bill No. 12					
Plumbing And Drainage					

BILL NO. 12
PLUMBING AND DRAINAGE
COLLECTION

Page No

Brought Forward from Page

290
291
292
293
294

Carried To Section Summary

R

Section No. 5
Bill No. 12
Plumbing And Drainage

296

	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>8 x 4 Waterborne Toilet Blocks</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 Walls	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 On ceilings and cornices.	m ²	16		
3 On fascias and barge boards.	m	16		
<u>ON METAL</u>				
<u>Prepare, etc as specified and apply two coats of gloss enamel paint on :</u>				
4 Door frames	m ²	9		
5 On windows with burglar bars (both sides measured).	m ²	4		
6 On gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area).	m ²	7		
<u>Inside eaves gutter</u>				
7 Inside eaves gutter with waterproofing paint	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 General surfaces of doors (interior).	m ²	13		
<u>Prepare, etc as specified and apply two coats of polyurethane suede varnish:</u>				
9 On general surfaces of doors.	m ²	7		
10 On general surfaces of timber.	m ²	2		
Carried To Section Summary			R	
Section No. 5				
Bill No. 14				
Paintwork				

Amount

SECTION NO. 5**8 x 4 Waterborne Toilet Blocks****SECTION SUMMARY**

Bill No.

Page

1	FOUNDATIONS	270
2	CONCRETE, FORMWORK AND REINFORCEMENT	273
3	MASONRY	277
4	WATERPROOFING	278
5	ROOF COVERINGS	279
6	CARPENTRY AND JOINERY	282
7	CEILINGS PARTITIONS AND ACCESS FLOORING	283
8	IRONMONGERY	284
9	METALWORK	287
10	PLASTERING	288
11	TILING	289
12	PLUMBING AND DRAINAGE	295
13	GLAZING	296
14	PAINTWORK	297

Section Factor

x 8

Carried to Final Summary

R

Section No. 5
SECTION SUMMARY

SECTION NO. 6
Provisional Sums

Amount

SECTION NO. 6**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 R1 100 000.00 (One Million One Hundred Thousand Rands) for supply of school furniture	Item	1 100 000 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 R180 000.00 (One Hundred and Eighty 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	180 000 00
14	Profit	Item	
15	Attendance	Item	

Carried To Section Summary

R

Section No. 6

Bill No. 1

Provisional Sums

Amount

Joinery fittings

16 Provide the sum of R300 000 (Three Hundred Thousand Rands) for joinery fittings by specialist

Item 300 000 00

17 Profit

Item

18 Attendance

Item

Occupational Health and Safety Consultancy Services

19 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

20 Profit

Item

21 Attendance

Item

Carried To Section Summary

R

Section No. 6

Bill No. 1

Provisional Sums

Amount

SECTION NO. 6**Provisional Sums****SECTION SUMMARY**

Page

Brought forward from page

300

Brought forward from page

301

Carried to Final Summary

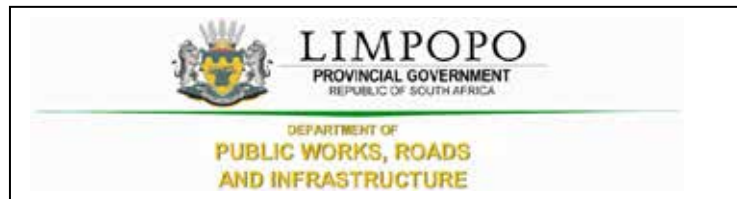
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Section No. 6

SECTION SUMMARY

FINAL SUMMARY

Section No		Page No		Amount
1	Preliminaries & Generals	155		
2	4 x 4 Classroom Blocks	189		
3	1 x 4 Grade R Classroom Blocks	230		
4	Medium Administration Block	266		
5	8 x 4 Waterborne Toilet Block	298		
6	Provisional Sums	302		
	SUB-TOTAL		R	
	ADD: ELECTRICAL INSTALLATIONS - PART B		sum	
	ADD: CIVIL WORKS - PART C		sum	
	SUB-TOTAL		R	
	<u>ADD: CONTIGENCIES</u>			
	Allow the amount of R1 500 000.00 (One Million Five Hundred Thousand Rands) for Contingencies to be used as directed by the Principal Agent and deducted in whole or in part if not required		sum	1 500 000 00
	<u>ADD: CPAP</u>			
	Allow the amount of R1 500 000.00 (One Million Five Hundred Thousand Rands) for fluctuations in cost in terms of Contract Price Adjustment Provisions		sum	1 500 000 00
	SUB-TOTAL BEFORE VAT		R	
	ADD: VAT at 15%			
	CARRIED TO FORM OF OFFER AND ACCEPTANCE		R	



C4.3 CIVIL WORKS

REPUBLIC OF SOUTH AFRICA
**LIMPOPO DEPARTMENT OF PUBLIC WORKS &
INFRASTRUCTURE**
DAVID SCARA KUTUMELA PRIMARY SCHOOL
LDPWRI-B/20102

PART C
CIVIL WORKS
BILLS OF QUANTITIES

Item	Payment Reference	Description	Unit	Qty	Rate	Amount
Alternative see 1200C 1200DM Alternative see 1200DB 1200DM	SABS 1200 D	SCHEDULE NO. 1: EARTHWORKS				
		<u>SITE CLEARANCE</u>				
	8.3.1	<u>Clear and grub area for</u>				
		Buildings	m²	2869.25		
		<u>PREPARATION AND STRIPPING OF SITE</u>				
	8.3.1	<u>Remove topsoil to a depth of 150mm and</u>				
	a	Stockpile on site within freehaul distance and maintain	m³	430.39		
	b	Spoil at designated spoil site	m³	172.16		
		<u>EXCAVATION</u>				
	8.3.2	<u>Excavate in all materials and use as fill, compacted to 90% mod AASHTO density for:</u>				
	a	Platforms	m³	516.47		
	8.3.2	<u>Extra over item 8.3.2 (a) for</u>				
	a	Intermediate excavation	m³	154.94		
	b	Hard rock excavation	m³	103.29		
	c	Boulder excavation class A	m³	10.33		
	d	Boulder excavation class B	m³	10.33		
		<u>COMMERCIAL MATERIAL</u>				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from: Commercial sources selected by the Contractor	m³	344.31		
		<u>DESIGNATED BORROW PIT (ARRANGED BY EMPLOYER)</u>				
	8.3.4	Extra over item 8.3.2 (a) for importation of materials from				
TOTAL CARRIED FORWARD						

ITEM NO.	PAYMENT REFER.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		TOTAL BROUGHT FORWARD				
	a	Designated borrow pits	m³	1 721.55		
	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>				
	a	Limited overhaul	m³	516.47		
	b	Long overhaul	m³.km	344.31		
		<u>COMPACTION OF BACKFILLING</u>				
	8.3.9	Selected material compacted to 93% mod AASHTO density	m³	2 065.86		
	8.3.10	Mod AASHTO Tests	No.	42.00		
Carried forward to Summary of Schedules						

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	312.98		
1.2.2	8.3.3(b)	In-place treatment of road-bed in intermediate or hard material				
	b	Ripping	m ³	62.60		
1.3		EARTHWORKS				
1.3.1	8.3.4	Cut to fill				
	a	Compact to 90 % mod. AASHTO maximum density	m ³	156.49		
	b	Selected layer compacted to 93 % mod. AASHTO maximum density	m ³	156.49		
1.3.2	8.3.6	Extra-over items 1.3.1 inclusive for excavating and breaking down material in:				
	a	Intermediate excavation	m ³	31.30		
	b	Hard excavation	m ³	15.65		
1.3.3	8.3.7	Cut to spoil from				
	a	Soft excavation	m ³	312.98		
	b	Intermediate excavation	m ³	62.60		
	c	Hard excavation	m ³	9.39		
1.3.4	8.3.8	Removal of oversize material	m ³	4.69		
TOTAL CARRIED FORWARD						

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		
	8.3.12	Construction of storm water berm allong the designated areas by engineer	m ³	0.00		
1.5	SABS 1200 ME	SECTION : SUBBASE				
	8.3.1	Construct gravel wearing course with material from borrow pits in all materials				
	a	150mm to main carriageways	m ³	312.98		
	8.3.4	Extra over items .1 to .2 inclusive for class of excavation				
	a	Intermediate excavation	m ³	62.60		
	b	Hard rock excavation	m ³	46.95		
1.6	SANS 1200 MFL	BASE				
	8.3.1	Construct base with material from borrow pit				
	a	Stabilized base using material from borrow 150mm to 95% mod AASHTO	m ³	312.98		
1.7	8.3.4	Stabilizing Agent				
		(b) Portland Cement	m ³	9.39		
1.8	SANS 1200 MJ	SEGMENTED BLOCK PAVING TO THE ACCESS ROAD				
	8.2.2	80mm Type S-A 35mPa for roadway (Grey Colouring)	m ²	0.00		
	8.2.2	60mm Type S-A 35mPa for roadway (Grey Colouring)	m ²	2 086.52		
	8.2.1	The construction of edge restraints	m	92.73		
TOTAL CARRIED FORWARD						

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	350.00		
		b) 330mm Length on curves	m	25.00		
1.8.2		300X150 Barrier Kerb (SABS 927 Fig 3).	m	722.00		
1.8.3		Mountable Kerb (SABS 927 Fig 3).	m	144.40		
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.	m²	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.	m²	44.00		
9.4	1200 DK 8.2	Supply and install A7 Bidim Geosynthetic protection layer to channel liner, as per drawings.	m²	60.00		
9.5	SANS 1200 AH 8.4.3	CONCRETE				
9.5.1		Supply, place and shape 25MPa concrete in hyson cells on the A10 Bidim Geosynthetic protection layer, as per drawings.	m³	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.	m³	12.51		
TOTAL CARRIED FORWARD						

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

Item No.	Payment Refers	Description	Unit	Quantity	Rate	Amount
2	SABS 1200A	SCHEDULE 2 - STEEL PALISADE FENCING				
2.1	PCC-4.1	Steel palisade fencing 2,4m high according to specification including painting, excavations, foundation concreting, posts, pales and ground beams. All as per drawing.	m	921.00		
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	2.00		
2.4	PCC-4.1	Re-painting of existing fencing (both sides measured)	m ²			
SUB - TOTAL CARRIED TO SUMMARY						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	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	480.00		
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				
	a	Up to 1,5m in depth	m³	480.00		
3.2.1.1	8.3.2(b)	Extra-over item 3.2.1 incl. for excavation (provisional) in :				
		a) Intermediate material	m³	96.00		
		b) Hard rock material	m³	72.00		
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	m³	480.00		
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)	m³	168.00		
3.2.2.2	8.3.3.2	Opening up and closing down of designated borrow pit	P.Sum	1.00		
3.2.2.3	8.3.3.3	Compaction in road reserves	m³	0.00		
3.2.2.4	8.3.3.4	Overhaul :				
		a) Short haul	m³	-		
		b) Truck haul	m³/km	-		
3.2.4	SABS1200LB	PROVISION OF BEDDING (PIPES)				
3.2.4.1	8.2.1	Provision of bedding material from trench excavations				
		a) Selected granular material	m³	72.00		
		b) Selected fill material	m³	168.00		
3.2.4.2		Provision of bedding material by importation from other necessary excavations (freehaul within the village boundaries)				
		a) Selected granular material	m³	86.40		
		b) Selected fill material	m³	201.60		
TOTAL CARRIED FORWARD						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
3.2.4.4	8.2.3	Concrete bedding	m³	5.00		
3.2.4.5	8.2.4	Encasing of pipes in Class 19/20 concrete	m³	5.00		
3.2.4.6	8.2.5	Overhaul of material for bedding cradle and selected fill blanket	m³km	0.00		
3.2.5	1200L	PIPEWORK				
	8.2.1	Supply, lay, joint, bed, test and disinfect the following pipes complete with couplings and fittings to the relevant SABS standards including short lengths (all uPVC pipes to comply with DWS1160)				
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	40.00		
		b) 50 mm class 6	m	380.00		
		c) 75 mm class 10	m	100.00		
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						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	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				
	a	Sitting of drilling sites. Allowance to be made for desk study, site assessment, drilling supervision, testing supervision, and reporting.	No	1.00		
		Borehole Drilling				
	b	Site Establishment/De-establishment				
	c	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				
	d	Drilling of 165mm diameter borehole in non-collapsible material.	m	100.00		
	e	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		
	f	Steel casing (plain), 165 mm (state wall thickness here as 3 mm)	m	35.00		
	g	Steel casing (slotted), 165 mm (state wall thickness here as 4 mm)	m	0.00		
		Pump testing of borehole.				
	h	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		
	i	Sampling for water quality testing	No	1.00		
		Site finishing				
	j	Borehole finishing, rate to include borehole disinfection, concrete collar in Grade 20Mpa concrete, normal saintary seal, borehole making.	No	1.00		
		Reporting				
	k	Complete Geohydrology report signed by a registered personnel	No	1.00		
3.2.15		BOREHOLE REHABILITATION - (PROVISIONAL)				
		Site Establishment/De-establishment				
	a	Mobilisation and set up of plant to/at first borehole. Rate to include inter-borehole moves and de-establishment from site	No	1.00		
	b	Removal of existing pumphouse	No	1.00		
	c	Removal of existing pump	No	1.00		
	d	Positive displacement pump				
	e	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						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
3.2.16		Site Establishment/De-establishment				
	f	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.				
	g	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		
	h	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>				
	a	Pump Installation, Head & Flow as per borehole test report	No	1.00		
	b	Electric Motor installation, as per pump size requirements determined in item above.	No	1.00		
		Pump Protection				
	c	Mechanical pressure switch, PN16, Complete with cabling to panel : Limits between 160m and 80m, WIKA PSM-550 or Equivalent	No	1.00		
	d	Mechanical flow switch, PN16, Complete with cabling to panel	No	1.00		
	e	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				
	f	Supply and install control panel with all fittings required to operate pumps and motors efficiently, including 0-20 second delay timer and 0-24 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>				
	g	Submersed pipe: Ø 63mm HDPE, Class 12, 7,1mm Wall thickness, SANS 4427, Borehole to Surface	m	110.00		
	h	Metal Base plate - Double choke	No.	1.00		
	i	65 NB Schedule 40 pipe discharge Galvanised Steel pipe, Incl Elbows and fittings	m	5.00		
	j	65 NB Threaded Brass Type Isolation valve, PN10	No.	2.00		
TOTAL CARRIED FORWARD						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
3.2.18	k	65 NB Flanged Non Return Valve, tilted disc type, PN 10	No.	1.00		
	l	65 NB Flanged Mechanical flow meter, PN 10	No.	1.00		
	m	M16 galvanised bolts and nuts	No.	96.00		
	n	65 NB Gaskets, Incl Consumables	No.	24.00		
	o	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		
	p	T-Pieces and Bushes to mount Pressure gauge, Pressure Switch and Flow Switch Submersible pump steel cage	No.	3.00		
	q	Supply and install borehole discharge pipework complete as per drawing	No	1.00		
		TESTING AND COMMISSIONING				
	a	Testing and commission borehole installation including pumps, motors, control system and verify discharge and head characteristics Electricity Supply	No	1.00		
	b	Supply material and erect a three phase electricity power line to the new borehole Mark-up on item 4.2.1	No	1.00		
	c	Supply all material and install a 25kVa transformer SUPPLY DELIVER AND INSTALL	No	1.00		
	d	10 000 Litre polyethylene water tank (Jo Jo make or equivalent). (2980mm high x 2 200mm diameter). 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		
	e	Fabricated steel tank stand with 4,2m long legs, constructed complete as per details on drawing LDE01_DW_03_201, LDE01_DW_03_202 and LDE01_DW_03_203. (incl. excavations and concrete footings).	No	4		
	f	Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and re-painting WATER TREATMENT (PROVISIONAL)	No	-		
	g	10kl PVC pre-treatment tank	No.	1		
	h	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
	i	Overheads, charges and profit.	%	350 000.00		
TOTAL CARRIED FORWARD						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		WATER STORAGE				
	j	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		
	k	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	6		
	l	Elevated 4.5m Steel Stand Tankstand Refurbishment including, modification to concrete foundations, pipe work, brackets, surface preparation and re-painting	P.Sum	7	12 000.00	R 84 000.00
	m	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:	P.Sum	1	6 500.00	R 6 500.00
		a) 1½" to 50mm MALE ELBOW (Plasson)				
		b) 50mm Ø HDPE PIPE CLASS 10	m	7		Rate Only
		c) 50mm Ø PLASSON ELBOW	No	7		Rate Only
		d) 50mm Ø MALE ADAPTER (Plasson)	No	7		Rate Only
		e) 50GMS bend F/F	No	7		Rate Only
		f) 50mm Ø x 3000 GMS STAND PIPE	No	7		Rate Only
		g) 50mm Ø BRASS BALL VALVE (COBRA)	No	7		Rate Only
		h) 50mm Ø GMS NIPPLE	No	7		Rate Only
		i) 50mm Ø GMS UNION	No	7		Rate Only
		k) 50mm Ø GMS PIPE 6000 LONG	No	7		Rate Only
		l) 50mm Ø GMS ELBOW F/F	No	7		Rate Only
		m) 50mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)	No	7		Rate Only
		n) 50mm Ø GMS STAND PIPE 700 LONG	No	7		Rate Only
		o) 50mm Ø GMS SOCKET	No	7		Rate Only
		p) 50mm Ø GMS STAND PIPE 150mm	No	7		Rate Only
TOTAL CARRIED FORWARD						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		Inlet Pipe Schedule (From Pump)	Prov Sum	1	6 500.00	R 6 500.00
		a) 1½ "TO 40mm MALE ELBOW (Plasson)	No	7		Rate Only
		b) 40mm Ø HDPE PIPE CLASS 10	m	7		Rate Only
		c) 40mm Ø PLASSON ELBOW	No	7		Rate Only
		d) 40mm Ø MALE ADAPTER (Plasson)	No	7		Rate Only
		k) 40mm Ø GMS PIPE 6000 LONG	No	7		Rate Only
		l) 40mm Ø GMS ELBOW F/F	No	7		Rate Only
		m) 40mm Ø GMS STAND PIPE 300 LONG (400 long in sandy conditions)	No	7		Rate Only
		n) 40mm Ø GMS STAND PIPE 700 LONG	No	7		Rate Only
		o) 40mm Ø Galvanised socket	No	7		Rate Only
		p) 40mm Ø Galvanised standpipe 150 mm long	No	7		Rate Only
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.	4.00		
		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				
	a	Removal of old water supply equipment including old tanks, tank stands, and pumps etc.	No	2		
TOTAL CARRIED TO SUMMARY						

Item	Description	Unit	Qty	Rate	Amount
	SCHEDULE 5 : EXTERNAL SEWER RETICULATION - (PROVISIONAL)				
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	358.00		
	b) Exceeding 1,0m but not exceeding 2.0m	m ³	17.90		
4.2	Extra-over all excavations in pickable material irrespective of depth, for excavating in:-				
4.2.1	Intermediate excavation	m ³	71.60		
4.2.2	Hard rock excavation	m ³	53.70		
4.3	Excavation Ancillaries				
4.3.1	Excavate and dispose of unsuitable material from trench bottom (provisional)	m ³	17.90		
4.3.2	Make deficiency in backfill material (Provisional)				
	a) from other necessary excavation on Site	m ³	17.90		
	b) by importation designated borrow pits	m ³	17.90		
	c) Compaction in platform reserves	m ³	17.90		
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					

Item	Description	Unit	Qty	Rate	Amount
Amount Brought Forward					
4.5	BEDDING (PIPES)				
4.5.1	Provision of Bedding from Trench Excavation				
	a) Selected granular material	m ³	53.70		
	b) Selected fill material	m ³	150.36		
4.5.2	Supply only of Bedding by Importation From Commercial Sources (provisional)				
	a) Selected granular material	m ³	53.70		
	b) Selected fill material	m ³	150.36		
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	358.00		
	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					

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 Final Summary					

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5.1	SABS 1200 GB	SCHEDULE 6 : WALKWAYS AND CARPORTS				
5.1.1	8.2.1(b)	FORMWORK Normal formwork to c) Column Foundations	m ³	209.92		
5.2		REINFORCEMENT				
5.2.1	8.2.4	Mild steel bars of nominal diameter				
5.2.1.1		12mm	t	8.40		
5.2.2		High-tensile steel bars of nominal diameter				
5.2.2.1		16mm	t	12.60		
5.2.3		High-tensile welded mesh of nominal mass				
5.2.3.1		a) 3.95 kg/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	20.99		
5.3.2		Blinding layer, Grade 10/19,0 mm	m ³	2.62		
5.3.4	8.2.6	Unformed surface finishes				
5.3.4.1		Wood-float to all floors except	m ²	52.48		
	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, gussets, 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	3.57		
5.5.2.2		Square Tubing Beams - beams (welded)	t	1.24		
5.5.2.3		Square Tubing purlins	t	3.64		
5.5.2.4		Unequal Angle rafter bracing	t	4.21		
5.5.2.5		200 x 200 x 6mm Base Plates	No.	202.00		
	1	Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	606.00		
TOTAL CARRIED FORWARD						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	2	Sika Non-shrink grout or Similar	m ³	1.62		
	3	M12 Holding Down Bolts - Grade 8.8 hexhead bolts	No.	808.00		
	4	b) Using steel to SABS 1431 Grade 350WA for assembly				
	5	Simple Square Tubing - columns (welded)	t	1.96		
	6	Square Tubing Beams - beams (welded)	t	1.71		
	7	Square Tubing purlins	t	1.96		
	8	Unequal Angle rafter bracing	t	2.00		
	9	200 x 200 x 6mm Base Plates	No.	96.00		
	10	Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	288.00		
	11	Sika Non-shrink grout or Similar	m ³	0.77		
	12	M12 Holding Down Bolts - Grade 8.8 hexhead bolts	No.	384.00		
	13	c) Using steel to SABS 1431 Grade 350WA for carports				
	14	Simple Square Tubing - columns (welded)	t	1.10		
	15	Square Tubing Beams - beams (welded)	t	0.69		
	16	Square Tubing purlins	t	3.21		
	17	Unequal Angle rafter bracing	t	2.45		
	18	Steel Fascia beams	t	1.54		
	19	200 x 200 x 6mm Base Plates	No.	30.00		
	20	Fasteners for angles hexhead bolts with washers - Grade 8.8	No.	90.00		
	21	Sika Non-shrink grout or Similar	m ³	0.24		
	22	M12 Holding Down Bolts - Grade 8.8 hexhead bolts	No.	120.00		
TOTAL CARRIED FORWARD						

ITEM NO.	PAYMENT REFRES	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
5.5.5	8.3.5	SITE WELDING				
5.5.5.1		Site weld items inclusive	m	98.40		
		CLADDING AND SHEETING				
5.6		ROOF CLADDING				
		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	1 310.80		
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	36.00		
	8.3.1	GUTTERS AND RAINWATER PIPES				
		Galvanized mild steel				
	a	3mm Thick box gutter, 100mm girth 6 times bent along length to detail, including straps, stiffeners,etc as per drawing	m	409.00		
	b	Extra for stopped end	no	6.00		
	c	Extra for 150mm diameter outlet	no	58.00		
	d	1mm Thick 150mm diameter rainwater pipe including straps, fixed to steel columns	m	150.80		
	e	Extra for 45° bend	no	58.00		
	SABS 1200 HC	CORROSION PROTECTION OF STRUCTURAL STEELWORK				
	f	Steelwork included under Items 1 to 7inclusive, of Section 1200H (Supply, Fabrication and Erection)	t	20.29		
5.7	8.2.1	SURFACE DRESSING AND REPAIRS AT PLACE OF FABRICATION				
	a	Remove slag and weld spatter, grind welds to smooth profile, radius sharp edges as specified.	t	20.29		
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	20.29		
5.7.2		Sitework. Clean down surfaces, touch up damaged shop coats and apply finish coats as specified	t	20.29		
5.7.2.1		Cold-formed sections				
	a	Tonnage shall be gross quantities inclusive of unpainted steel (e.g. embedded portions and underside of baseplate,etc.	t	20.29		
TOTAL CARRIED TO SUMMARY						

DEPARTMENT OF EDUCATION : LIMPOPO

DAVID SCARA PRIMARY SCHOOL

CIVIL ENGINEERINGS SERVICES: BILLS OF QUANTITIES

SUMMARY OF BILL OF QUANTITIES

SCHEDULE NO. 1: EARTHWORKS

SCHEDULE 2: EARTHWORKS (ROADS AND SUBGRADE)

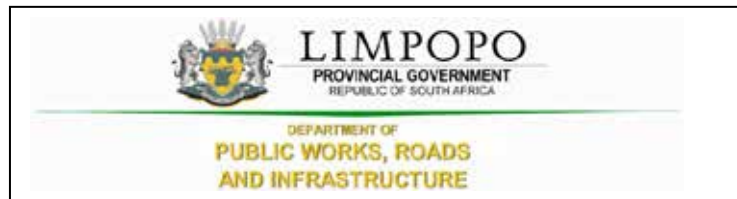
SCHEDULE 2: STEEL PALISADE FENCE

SCHEDULE 3: WATER SUPPLY PIPELINES AND WATER SOURCE

SCHEDULE 4: EXTERNAL SEWER RETICULATION

SCHEDULE 5: COVERED WALKWAYS

TENDER (CONTRACT) SUM (CIVIL AND STRUCTURAL WORKS)



C4.4 ELECTRICAL WORKS

REPUBLIC OF SOUTH AFRICA
**LIMPOPO DEPARTMENT OF PUBLIC WORKS &
INFRASTRUCTURE**
DAVID SCARA KUTUMELA PRIMARY SCHOOL
LDPWRI-B/20102

PART B
ELECTRICAL INSTALLATIONS
BILLS OF QUANTITIES

Summary- David Scara Primary School		
BILL	DESCRIPTION	AMOUNT
1A and 1B	Preliminary and General and Transport	
2	Internal Installation	
3	Site Reticulation	
4	Bulk Power Supply	
5	HVAC	
6	Prov Sum for Eskom Bulk Power Supply	R 750 000.00
7	Prov Sum for CCTV Installation	R 100 000.00
	CARRIED TO FINAL SUMMARY	
<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- David Scara Primary School

Item	Description	Unit	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	3800		
2.2	Installation	m	3800		
	50 mm dia PVC				
2.3	Material	m	1900		
2.4	Installation	m	1900		
3	STEEL BOXES AND COVER PLATES				
	Round conduit boxes				
3.1	Material	No	158		
3.2	Installation	No	158		
	Galvanized Steel				
	100 x 50 x 50 mm				
3.3	Material	No	86		
3.4	Installation	No	86		
	Balance c/f				

	Balance b/f				
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	7600		
4.4	Installation	m	7600		
	4sq mm				
4.5	Material	m	3800		
4.6	Installation	m	3800		
	6sq mm				
4.7	Material	m	0		
4.8	Installation	m	0		
	Stranded Bare Copper Earth Wire				
	1.5sq mm				
4.9	Material	m	0		
4.10	Installation	m	0		
	2,5sq mm				
4.11	Material				
4.12	Installation	m	3800		
		m	3800		
	4,0sq mm				
4.13	Material	m	1900		
4.14	Installation	m	1900		
	Balance c/f				

	Balance b/f				
	Galvanized Draw wire				
	1,5sq mm				
4.15	Material	m	3800		
4.16	Installation	m	3800		
5	SWITCHES, SOCKET OUTLETS AND ISOLATORS FOR FLUSH INSTALLATION INCLUDING COVERPLATES				
	Switches				
	16 A Single Lever 1 way				
5.1	Material	No	62		
5.2	Installation	No	62		
	16A 1 Lever 2 way				
5.3	Material	No	0		
5.4	Installation	No	0		
	Socket Outlets with switch				
	16A 3 pin Double 100 x 100				
5.5	Material	No	64		
5.6	Installation	No	64		
	Isolators				
	20A 2 pole, 100 x 100				
5.6	Material	No	23		
5.7	Installation	No	23		
	Balance c/f				-

	Balance b/f				
	40A 2 pole, 100 x 100				
5.8	Material	No	24		
5.9	Installation	No	24		
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	No			
6.2	Installation	No			
7	PHOTOCELL / DAYLIGHT SWITCH				
	Royce Thompson type or equal				
7.1	Material	No	6		
7.2	Installation	No	6		
8	BONDING OF DISTRIBUTION BOARDS TO WATER AND ROOF				
	Installation	lot	6		
9	EARTHING AND LIGHTING PROTECTION				
9.1	Material	lot	6		
9.2	Installation	lot	6		
10	TESTS OF THE COMPLETE ELECTRICAL INSTALLATION AND ISSUING OF COC'S				
10.1	Installation	lot	6		
	Total for Bill 2 carried to summary sheet				

Item	Description	Unit	Qty	Rate	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	28		
	Installation	No	28		
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		
	Installation	No	4		
11.3	TYPE B1 - IP65 Wall and ceiling mounted mounted bulkhead complete with 1 x 30W LED bulb .				
	Material	No	56		
	Installation	No	56		
	Balance c/f				

11.4	Balance b/f				-
	Type 3 - Open Channel complete with 2 x 24W T8 LED tubes .Each tube to have a lumen output of 2315lm.				
	Material	No	130		
	Installation	No	130		
	Total for Bill 3 carried to summary sheet				

Item	Description	Unit	Qty	Rate	Total
	BILL 4				
12	DISTRIBUTION BOARDS AND SITE KIOSKS				
	New Site Kiosk as per schematic/Drawing				
12.1	Material	No	1		
12.2	Installation, Inc Plinth	No	1		
	Block DBs as per Schematic/Drawing				
12.3	Material	No	6		
12.4	Installation	No	6		
	Telephone and Computer Distribution Board				
	500 x 500 x 250 mm surface type distribution board installed flush				
12.5	Material	No	1		
12.6	Installation	No	1		
	Telephone point	No			
12.7	Material	No	5		
12.8	Installation	No	5		
	Computer point				
12.9	Material	No	5		
12.10	Installation	No	5		
	Total for Bill 4 carried to summary sheet				

SUMMARY OF QUANTITIES

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

Site Reticulation Bill- David Scara Primary School

Item	Description	Unit	Qty	Rate	Total
	BILL 5				
13	LOW VOLTAGE CABLES				
	Low Voltage cables 600 to 1000 PVC insulated steel wire armoured underground cable				
	ceiling void if necessary				
	70 mm sq x 4 core				
13.1	Material	m	0		
13.2	Installation	m	0		
	50mm sq x 4 core				
13.3	Material	m	0		
13.4	Installation	m	0		
	25mm sq x 2 core				
13.5	Material	m	50		
13.6	Installation	m	50		
	16mm sq x 2 core				
13.7	Material	m	50		
13.8	Installation	m	50		
	10mm sq x 2 core				
13.9	Material	m	450		
13.10	Installation	m	450		
	TERMINATIONS				
	70mm sq x 4 core				
13.11	Material	No	0		
13.12	Installation	No	0		
	50mm sq x 4 core				
13.13	Material	No	0		
13.14	Installation	No	0		
	Balance c/f				

	Balance b/f				
	25mm sq x 2 core				
13.15	Material	No	2		
13.16	Installation	No	2		
	10mm sq x 4 core				
13.17	Material	No	12		
13.18	Installation	No	12		
	10mm sq x 3 core				
13.19	Material	No	0		
13.20	Installation	No	0		
14	COPPER EARTH WIRE				
	70mm sq				
14.1	Material	m	0		
14.2	Installation	m	0		
	25mm sq				
14.3	Material	m	50		
14.4	Installation	m	50		
	16mm sq				
14.5	Material	m	450		
14.6	Installation	m	450		
	10mm sq				
14.7	Material	m	0		
14.8	Installation	m	0		
	6mm sq				
14.9	Material	m	0		
14.10	Installation	m	0		
	Balance c/f				

	Balance b/f				
15	Yellow Cable Marker / Danger Tape				
15.1	Material	m	25		
15.2	Installation	m	25		
TOTAL CARRIED FORWARD TO SUMMARY					
SUMMARY OF QUANTITIES					

BILL	DESCRIPTION	Scheduled Value
5	LOW VOLTAGE CABLES	
	SUB TOTAL	

Site Reticulation Bill- David Scara Primary School

Item	Description	Unit	Qty	Rate	Total
16	BILL 6 PVC SLEEVES FOR ELECTRIC AND COMMUNICATION PVC SLEEVES complete with bends 100mm dim				
16.1	Material	m	0		
16.2	Installation	m	0		
	50mm dim				
16.3	Material	m	200		
16.4	Installation	m	200		
	Excavation				
16.5	Soft Rock and Earth	m3	100		
16.6	Hard Rock	m3	50		
16.7	Very Hard Rock	m3	0		
	Sifted Soil Bedding and Cover				
16.8	Material	m3	50		
16.9	Labour	m3	50		
17	Prepare As Built Drawings for all Layouts As Built Drawings	lot	1		
18	Steel cover				
18.1	Material	No	3		
18.2	Labour	No	3		
19	Concrete Cable Markers				
19.1	Material	Lot	1		
19.2	Labour	Lot	1		
	TOTAL CARRIED TO SUMMARY				

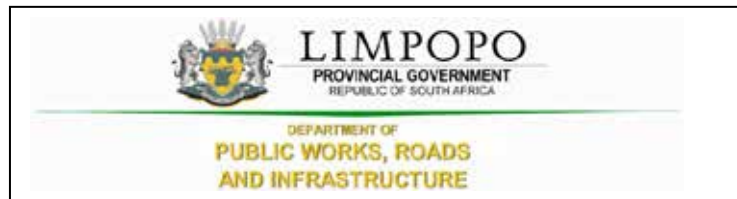
ITEM	DESCRIPTION	UNIT	Qty	Rate	TOTAL
20	BILL 7 BULK POWER SUPPLY FROM ESKOM APPLICATION FOR POWER SUPPLY				
	HVAC: Supply, delivery, installation, commissioning and testing of a 2.4 kW cooling capacity high wall split units complete with insulated refrigerant piping, condensate drains, trunking, electric wiring and connection and controls (heat pump) , RECOMMENDED BRANDS are GREE , CARRIER , YORK AND LG				
20.1	High-wall split units, 2.4 kW cooling capacity/ 9000 BTU (heat pump) unit.				
	Material	No.	6		
	Installation	No.	6		
20.2	Refrigerant piping pair (liquid and gas)	m			
	Material	m	100		
	Installation	m	100		
20.3	Drain piping				
	Material	m	100		
	Installation	m	100		
	Hand Dryers				
21.1	Hand drier (XLERATOR or equivalent) at toilets (1400W high speed air jet, motor speed of at least 20000 RPM)				
21.2					
	Material	No	2		
23	Installation	No	2		
TOTAL CARRIED FORWARD TO SUMMARY					

SUMMARY OF QUANTITIES

BILL	DESCRIPTION	Scheduled Value
6	PVC SLEEVES FOR ELECTRIC AND COMMUNICATION	
7	BULK POWER SUPPLY	
SUB TOTAL		



PART C5: SCOPE OF WORKS



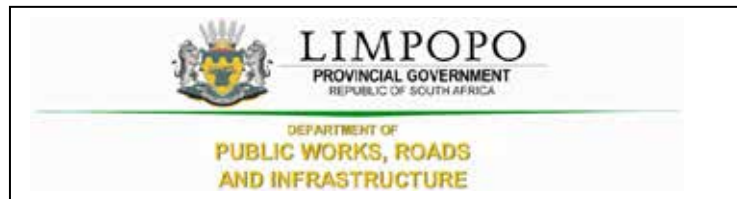
C5.1 SCOPE OF WORKS

Overview of the works

The project comprises the construction of the following:

1. Construction of 4 x 4 classroom block, medium administration block, Grade R classroom block, 32 seats water borne toilets, water reticulation, borehole drilling, 6 x 10kl + 5kl elevated tanks, sewer reticulation, storm water drainage, paving, carports and fencing at David Scara Kutumela Primary School in Modimolle.
2. In accordance with the drawings and specifications that will be provided to the contractor.

The Contractor shall provide sufficient qualified technical staff, field staff, and safety personnel to ensure the Works under this contract be satisfactorily carried out safely and meeting the performance targets and programs. The Contractor shall also provide competent attendant(s) to monitor any works in relation to the scope of works.



PART C6: EPWP INFRASTRUCTURE GUIDELINE 2015

PART C6: EPWP INFRASTRUCTURE GUIDELINE 2015

Bidders are referred to guidelines for the implementation of labour-intensive infrastructure projects under Expanded Public Works Programme (EPWP), Third Edition 2015



PART C6.1: DATA COLLECTION TOOL



DATA COLLECTION TOOL	
<i>NOTE: The field with the asterick indicates the mandantory.***</i>	
Column A	Column B
Project Details	
Project Name ***	
Project Reference Number ***	
Project description ***	
Project Start Date ***	
Project End Date ***	
Estimated Budget ***	
Project Location	
Province ***	
District/Metro Municipality ***	
Local Municipality/Metro Region ***	
Latitude (in decimal format)	
Longitude (in decimal format)	
Public Body Details	
Public body sphere ***	
Reporting public body that is the project owner (and will report on the project) ***	
Implementing public body type ***	
Public body that will implement the project	
MIG/IDP reference number allocated to the project	
EPWP Details	
EPWP Sector***	Infrastructure
EPWP Program ***	
EPWP Sub programme ***	
Budget Amount	
Financial year ***	1
Total Budget Amount ***	
Wages ***	
UIF ***	
COIDA ***	
Training	
Administration	
Equipment and materials	
Other	
Describe if other	
Outputs and Training	
Output ***	
Desription ***	
Target Quantity ***	
Number of persons to be trained	
Contact person	
Title***	
Initials***	
First Name***	
Surname***	
Email	
Tel (Office)***	
Fax Number	
Cell Number***	
Physical Address ***	
Postal Address	
Postal code	

Beneficiary Details *** NOTE:Give as much information as you possible can on the beneficiaries details.															Location Details ***				Household Details ***		
FirstName ***	Initials ***	Surname ***	Idnumber ***	DateOfBirth ***	Gender ***	Disability ***	StartDate ***	EndDate ***	education level ***	Language ***	Address ***	Nationality ***	Cell Number ***	Governmen t Grant ***	Province ***	District ***	Municipality ***	Ward No.***	Number of people in Household ***	Number of Dependants in Household ***	Number of Children attending school ***

Project Location	
Column A	Column B
Locality Name ***	
Municipality***	
Ward ***	
Subplace***	
Government Facility***	
Project Location ***	

Payment Details ***

[illegible]

Training

ID	Course Name	Code	Type	Start	End	Number of Trainees	Number of Days	Cost	Status	Training Provider

Monthly Progress Report	
Wages ***	
UIF ***	
COIDA ***	
Training	
Administration	
Equipment and materials	
Other	
Describe if other	
Outputs	
Achieved Value ***	
Achieved Percentage ***	

	EPWP Employment Information	
	Name of Project	
	First Name	
	Initials	
	Surname	
	ID Number	
	Nationality	
	Name of Employer	
	Name of Project	
	Signature of Employer	
	Attachment	
	Copy of ID	

Payment Details ***																
Employer			LDPWR&I													
Project Name			Schoemansdal Museum													
Contract Number																
Reporting Month																
Attach proof of payment or register where employees aknowledged receipt of																
	FirstName ***	Initials ***	Surname ***	Idnumber ***	DateOfBirth ***	WageRate ***	No. of Days Worked	AmountPaid ***	WorkDays ***	Training Days Paid	TrainingD ays NonPaid	Total Training Days	Training Course Id	Month ***	Year ***	Signature of Payment Received
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																



PART C7: SITE INFORMATION AND DRAWINGS



PART C7.1: SITE INFORMATION

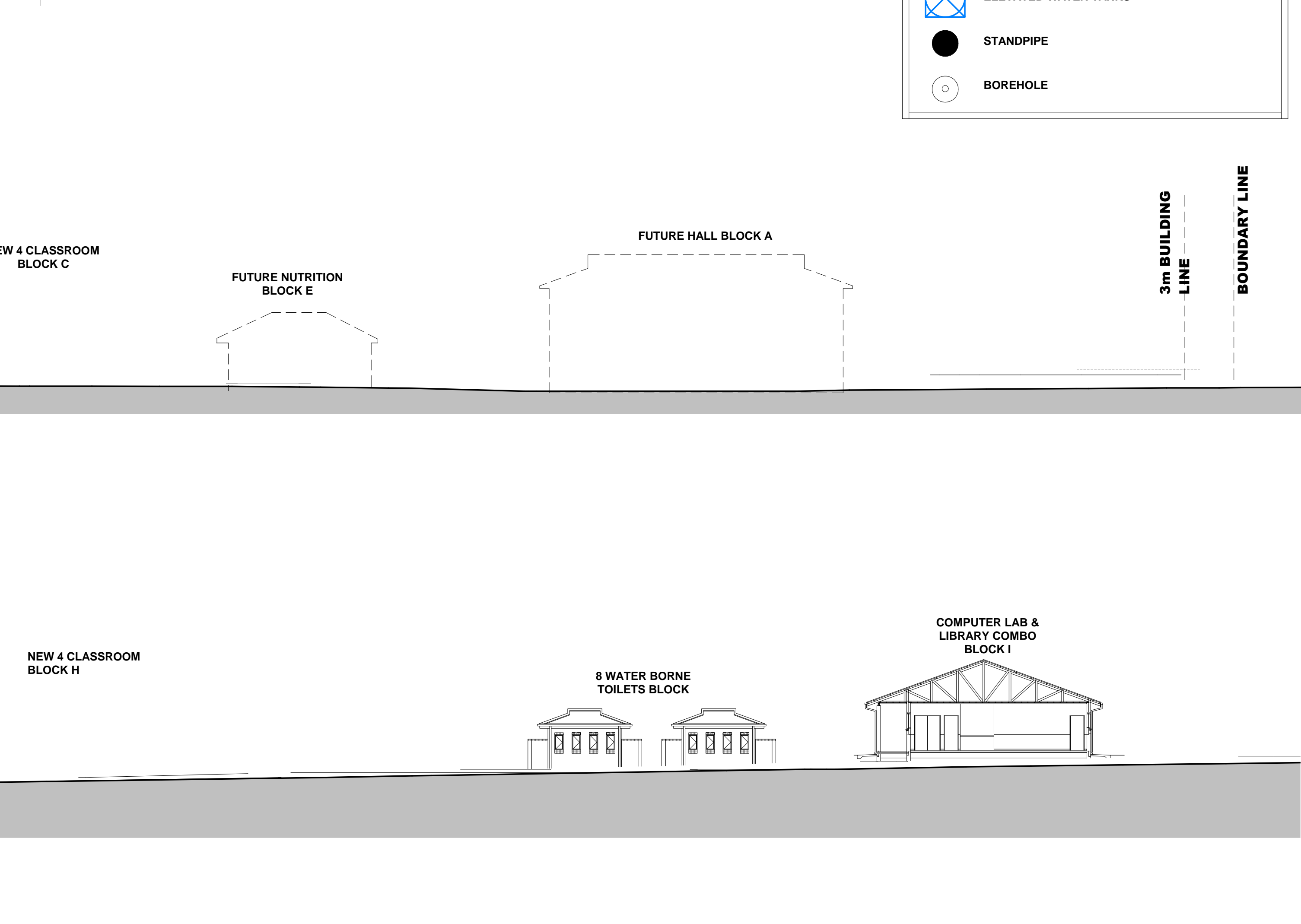
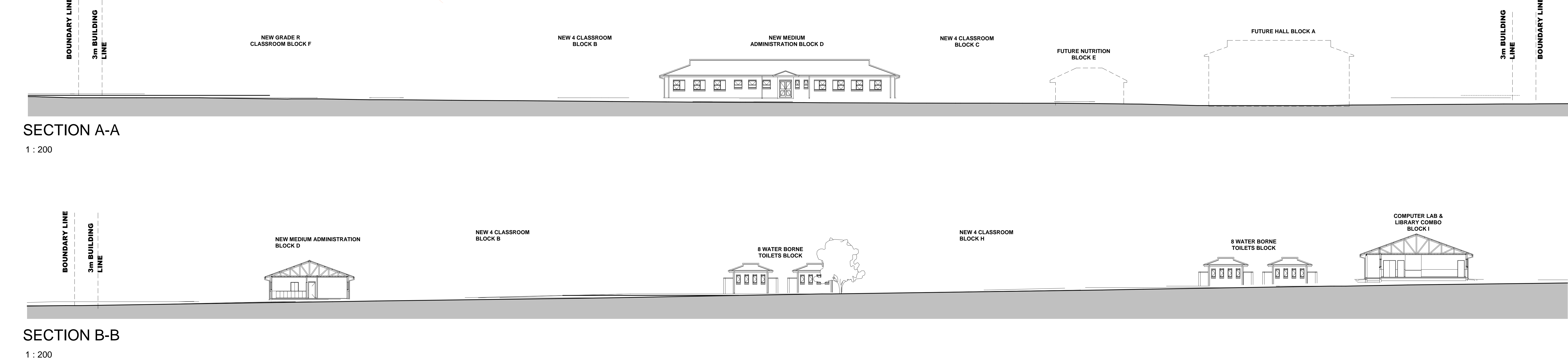
The site is located in Modimolle at the proposed land for new primary school. Contractor shall ensure that interruptions to underground and existing services are kept to the minimum when undertaking building works



PART C7.2: DRAWINGS

REPUBLIC OF SOUTH AFRICA
LIMPOPO DEPARTMENT OF PUBLIC WORKS &
INFRASTRUCTURE
DAVID SCARA KUTUMELA PRIMARY SCHOOL
LDPWRI-B/20102

ARCHITECTURAL DRAWINGS



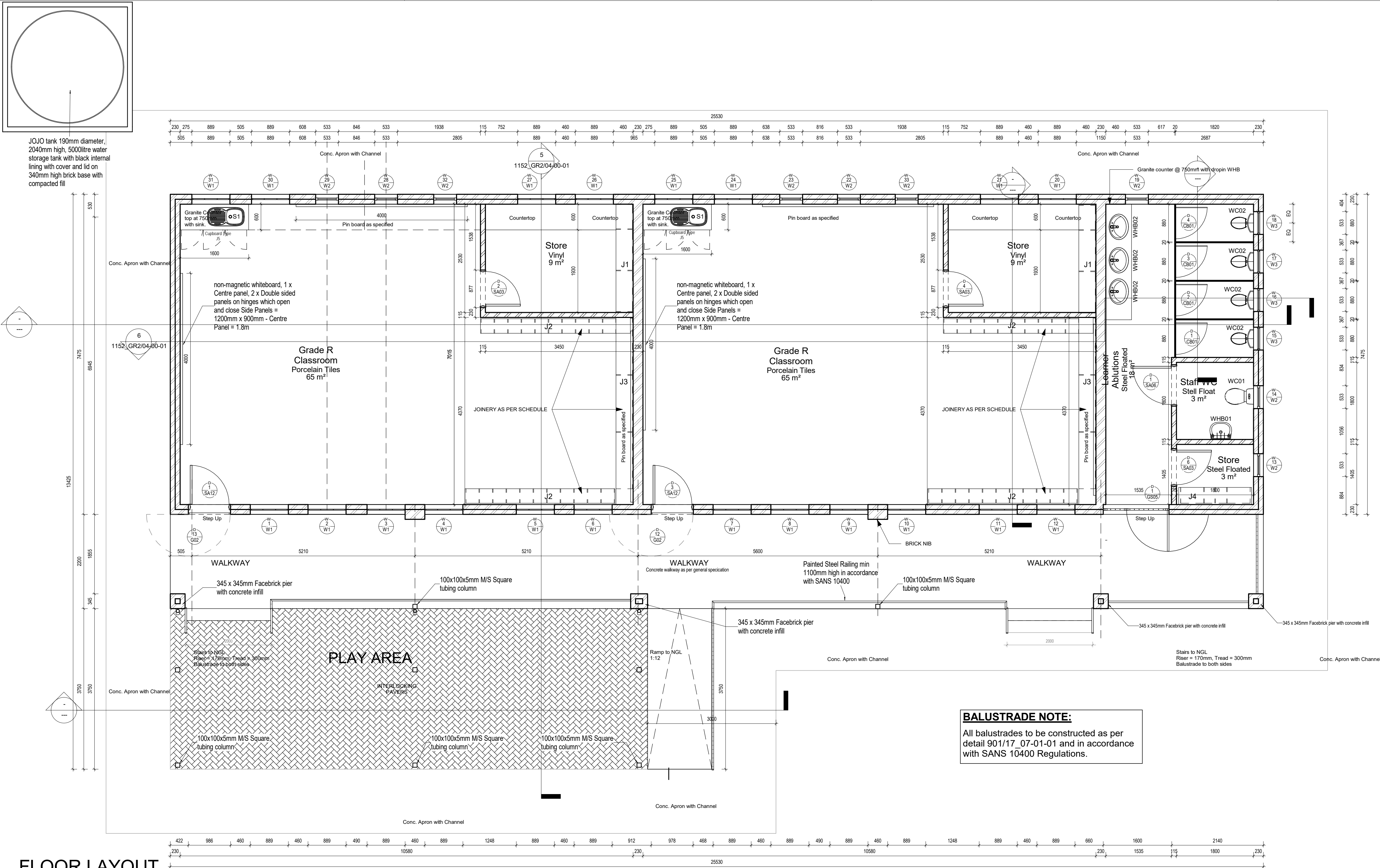
	NEW BLOCKS - NOTE 2 Jojo tanks on each block
	FUTURE BLOCKS - NOTE 2 Jojo tanks on each block, Phase 2
	EXISTING BUILDING TO REMAIN UNCHANGED
	EXISTING BUILDING TO BE RENOVATED - NOTE 2 Jojo tanks on each block
	EXISTING BUILDING TO BE DEMOLISHED
	NEW COVERED WALKWAYS
	EXISTING WALKWAYS
	FUTURE COVERED WALKWAYS
	EXISTING MOBILE CLASSROOMS
	EXISTING MOBILE CLASSROOMS
	HDPE WATER SUPPLY PIPES
	PVC SEWER PIPES
	ELEVATED WATER TANKS
	STANDPIPE
	BOREHOLE

GENERAL DRAWING NOTES

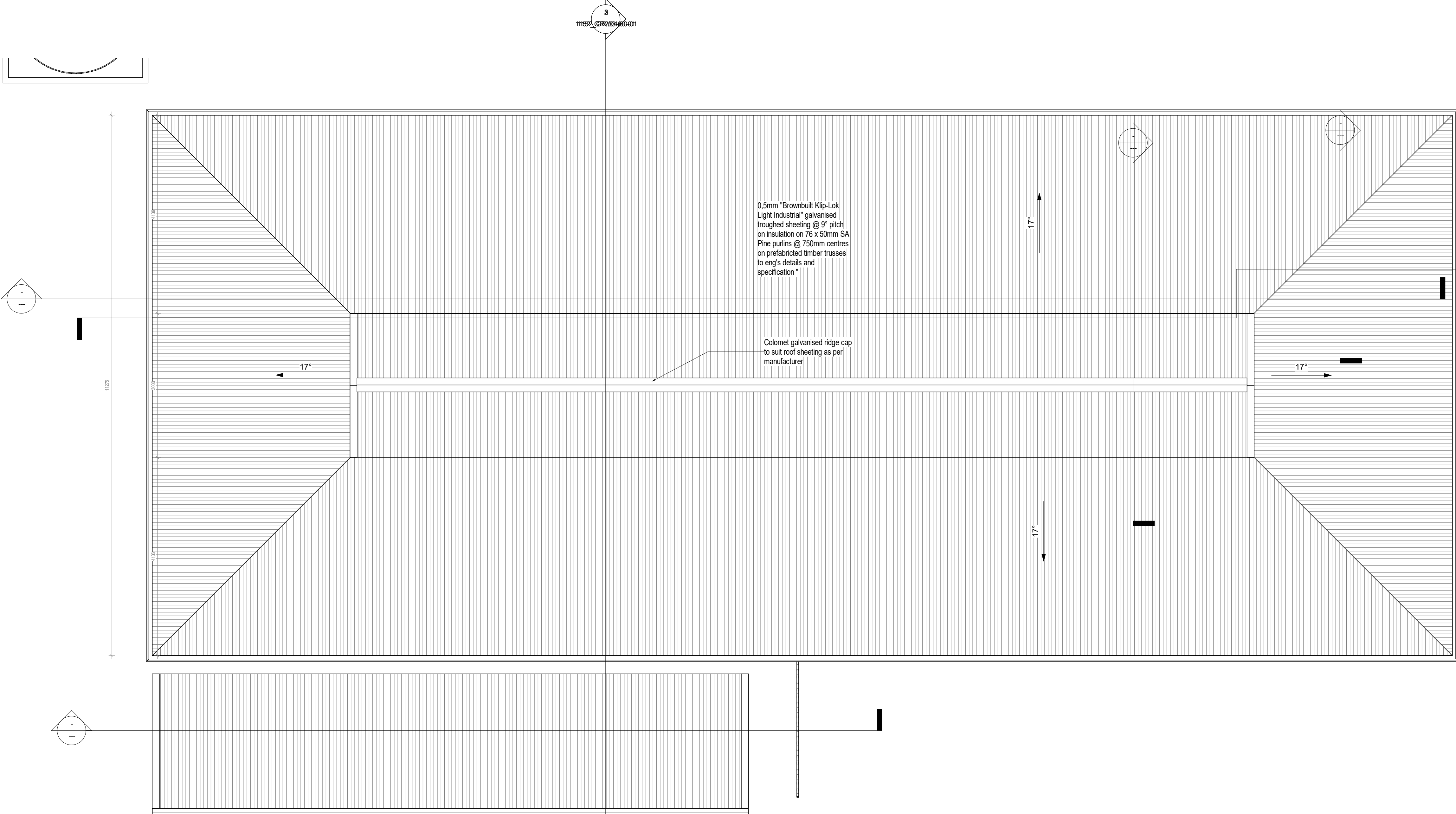
- 1) RAKMANSHIP TO COMPLY WITH STANDARD SPECIFICATION OF MATERIALS AND METHODS TO BE USED - SABS 0400
- 2) LIGHT SWITCH IN DISABLED TOILET TO BE AT 1200MM ABOVE FLOOR
- 3) STUPE OVER 900MM BUILD IN BALNEAUM
- 4) GUTTER POSITIONS TO BE DETERMINED AS PER SITE PRESCRIBED DRAINAGE DRAINAGE DESIGN
- 5) X COATS SEALANT ALL EXPOSED TRUSSES (SAND OFF ALL SABS & OTHER MARKINGS)
- 6) 50MM MINERAL WOOL INSULATION TO BE INSTALLED WHERE THERE ARE CEILINGS. BUBBLE PLASTIC INSULATION WITH FALL BACKING TO BE INSTALLED WITH WIRE FASTENING IN ALL AREAS THAT DO NOT HAVE CEILINGS
- 7) WEST FACED FACADES TO HAVE STANDARDISED ALUMINIUM LOUVRES FROM BELOW EAVES TO DROP OF 1200MM
- 8) TRUSSES TO BE DESIGNED IN ACCORDANCE WITH SABS 400 & APPROVED BY PROJECT ENGINEER

SIGNATURE TABLE:		
DISCIPLINE:	SIGNATURE:	DATE:
CLIENT:		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL OFFICER		
ROADS/STORMWATER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

			 <h1>LIMPOPO</h1> <p>PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA</p>		
Department of Public Works					
INSTITUTION: DAVID SCAR KUTUMELA MQOMOLO RDP SETTLEMENT PRIMARY SCHOOL					
APPROVED BY EMD NUMBER:		991104024			
SERVICE					
NEW BUILDINGS & ALTERATIONS					
CONTACT - SECTION:					
DOCUMENTATION & PROCUREMENT				PROJECT STAFF	
ARCHITECTURAL				03	
WORK DESCRIPTION - SUB DIVISION					
SITE DEVELOPMENT PLAN (SDP)					
DRAWING DESCRIPTION					
DATE					
WORK DESCRIPTION FOR THE DRAWING					
DRAWING NO. OR OTHER ID					
CONSULTANT:					
 ruben reddy architects Suite 4 No. 1, Sunset Office Building 156001 TLOUENI, P.O. BOX 156001, JOHANNESBURG TEL: +27 82 938 332					
CONTACTOR:					
DRAWING	REVIT	DRAWING NUMBER:		FILE NAME:	
SIZE:		00		REVISED	



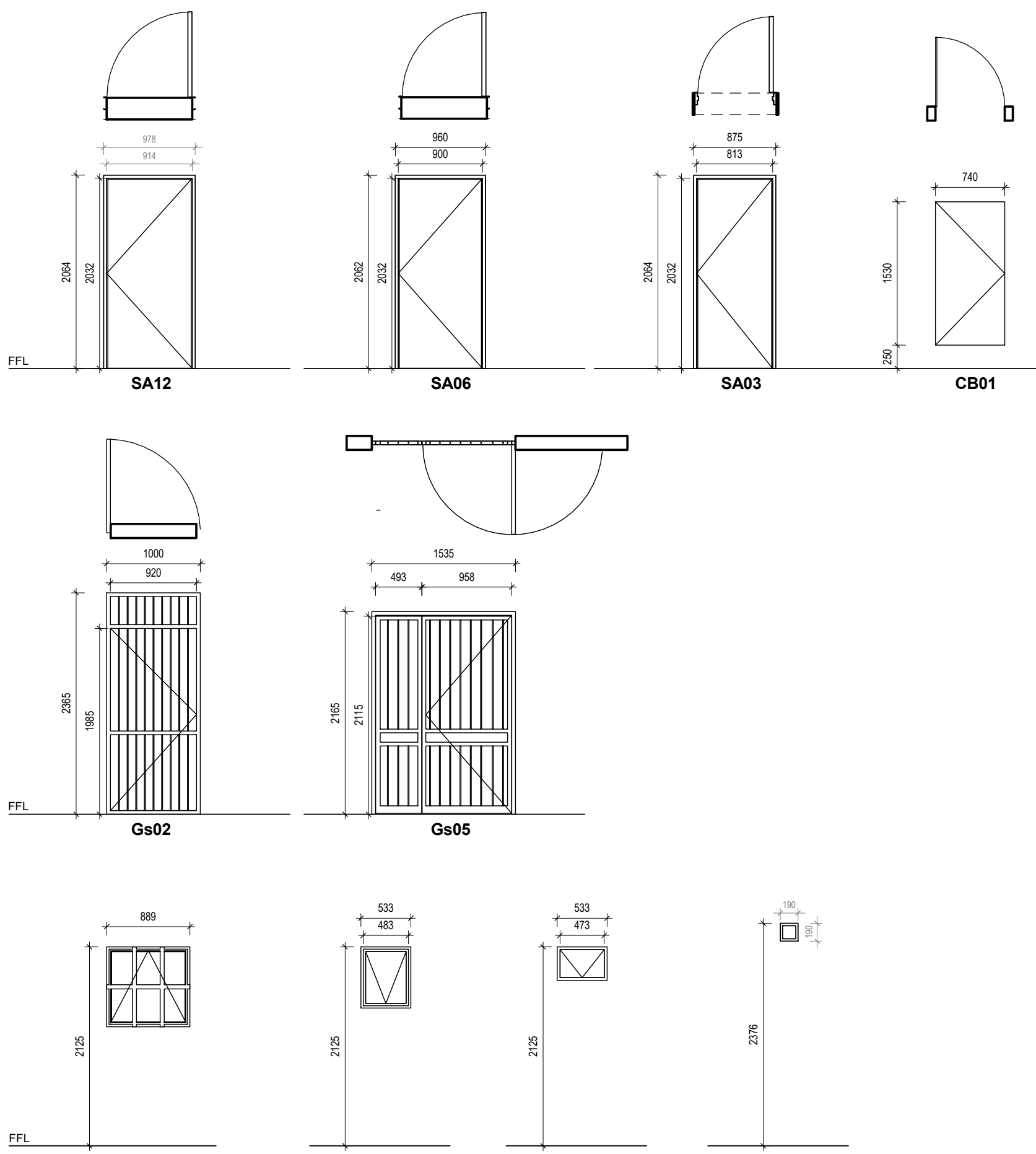
FLOOR LAYOUT
1:50



ROOF LAYOUT
1:50

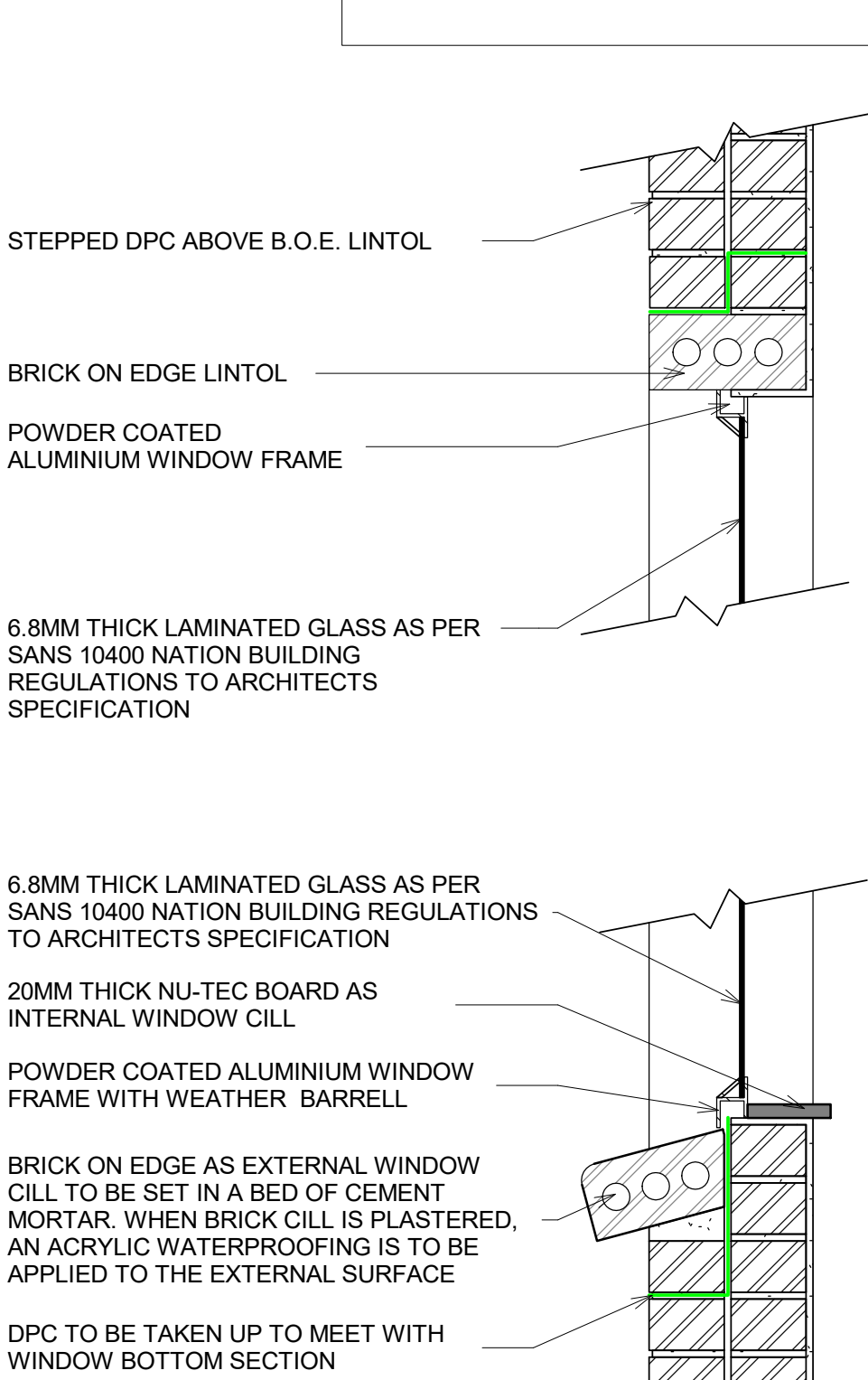
DOOR SCHEDULE									
No.	Count	Head Height	Height	Width	Door Frame	Door Frame Colour	Door Frame Finish	Door Panel	nonmongery
GS01	4	2064	2064	978	Frame to 17mm or similar approved to fit 17mm side panels.	White or to match steel window frames	Red oxide primer factory finish as supplied by manufacturer. Prepare and paint one coat named coat zinc chromate metal primer. 1 coat metal universal undercoat and 2 coats gloss enamel.	Hinges - 3 Plain 20mm diameter bullet hinges per hinge. Lockset - Vaal Lockset 400113 1/2 Lever Lockset with 200mm Kibbale width of Door and Door Flush 140B3 with Bush Chrome Springs Against Door.	
GS06	1	2125	2125	1600	50 x 50 x 2.5mm rectangular tubing sections mitre 45 degrees at corners before welded secured against wall with 50 x 50 x 5mm mild steel brackets welded to frame and bolted to wall with 10mmM10 rawbolts.	White or to match steel window frames	Red oxide primer factory finish as supplied by manufacturer. Prepare and paint one coat named coat zinc chromate metal primer. 1 coat metal universal undercoat and 2 coats gloss enamel.	Solid Core Flush door with concealed hardware edges and doors thick materials covering on both sides hung to steel frame.	
SA03	3	2064	2064	877	Standard 1.2mm thick pressed metal steel frame with double vertical complete with legs and base see as supplied by manufacturer suitable for 115mm wall.	To be specified.	Red oxide primer factory finish as supplied by manufacturer. Prepare and paint one coat named coat zinc chromate metal primer. 1 coat metal universal undercoat and 2 coats gloss enamel paint colour as per finishing schedule.	Hinges - 2 x 100mm MS butterfly hinges per door nail Lockset - "Solid Black" / Taper 400113 1/2 Lever Lockset with 200mm Kibbale width of Door and Door Flush 140B3 with Bush Chrome Springs Against Door.	
SA06	1	2064	2064	964	Purpose Made 1.2mm thick pressed metal steel frame with double vertical complete with legs and base see as supplied by manufacturer suitable for 115mm wall.	To be specified.	Red oxide primer factory finish as supplied by manufacturer. Prepare and paint one coat named coat zinc chromate metal primer. 1 coat metal universal undercoat and 2 coats gloss enamel paint colour as per finishing schedule.	Purpose Made Semi-solid Medium Duty Bush panel door set. 40mm thick frame suitable for painting and edges to match veneer.	
SA12	2	2064	2064	978	Purpose Made 1.2mm thick pressed metal steel frame with double vertical complete with legs and base see as supplied by manufacturer suitable for 115mm wall.	To be specified.	Red oxide primer factory finish as supplied by manufacturer. Prepare and paint one coat named coat zinc chromate metal primer. 1 coat metal universal undercoat and 2 coats gloss enamel paint colour as per finishing schedule.	Hinges - 3 x MS butterfly hinges per door and Lockset - "Solid Black" / Taper 400113 1/2 Lever Lockset with 200mm Kibbale width of Door and Door Flush 140B3 with Bush Chrome Springs Against Door.	

WINDOW SCHEDULE									
Constructive Type	Product Code	Count	Manufacture	Product Code	Height	Head Height	Width	Height	Height
W01	148-H	20	Down	148-H	1000	1000	2125	1271	
W02	NE1	9	Down	NE1	854	854	2125	1471	
W03	NG5	4	Down	NG5	533	533	2125	1766	



Door & Window Legend
1:50

General Specifications:									
Roof sheeting									
0.5mm 'Brownbutt Kip-Lak Light Industrial' galvanized troughed sheeting @ 9° pitch on insulation on 75 x 50mm SA Pine purlins @ 750mm centres on prefabricated timber trusses to eng's details and specification.									
Partials									
Steel lip-channel putties according to Engineers drawings & details. Finish as per Portal Frames.									
Portal Frames									
50 x 100x100x10mm MS square tubing sections according to Engineers drawings & details. Finish: 1 Coat red oxide primer + 1 Coat Universal undercoat + 2 Coats Pleson glass enamel paint all applied in strict accordance to manufacturers instructions and guarantees procedures. Glazing to match windows and door frames.									
Classroom Floor construction									
25mm high strength steel finished to comply with BSE category 'B' testing method, polished floor screed all done in accordance with the Cement & Concrete Institute method of construction on reinforced slab concrete slab on 200mm thick Green DPM on compacted hardcore fill, all as per Engineers specifications. Expansion joints in slab as per Engineers drawings & details where required.									
Walkway Floor construction									
15mm high strength steel finished to comply with BSE category 'B' testing method, polished floor screed all done in accordance with the Cement & Concrete Institute method of construction on reinforced slab concrete slab on 200mm thick Green DPM on compacted hardcore fill, all as per Engineers specifications. Expansion joints in slab as per Engineers drawings & details where required.									
Foundation Walls of Walkways									
Foundations walls will be 230mm thick reinforced concrete in stretcher bond. Brickwork exposed above natural ground level in Facbrick to match building, all with brickwork every four brick courses.									
Compact Filling									
With approved soil in layers not exceeding 150mm to a thickness of 95% MDOASH10 according to Engineers specification & approval.									
Classroom Foundations									
Min. 150mm thick reinforced concrete raft foundations/bases according to Engineers drawings, details & approval. Concrete strength edge treatment (finishing and brickwork) under wall to Engineers' details and specifications. Sides of Walkways to 1100 walls to outside.									
Walkway Foundations									
150x200mm Thick 150kg reinforced concrete foundations/bases according to Engineers drawings, details, specifications approval.									



SANITARYWARE
1:1

SANITARY SCHEDULE									
Type Mark	Count	Description							
S1	2	Franke Kitchen Systems (1/4 Citmettal) stainless steel model Curvine CVN611 inset sink and drainer size 860 x 435mm with single end bowl including cutting one tap hole (Code 310370) with 38mm PVC waste and plug with handle (302021).							
WC01	1	Protea Paraplegic Low Level Suite - 751610.							
WC02	4	Vaal Sanitaryware vitreous china "Protea Paraplegic" 90° outlet pan (code 750200) and matching 9 litre cistern (code 7116LP) complete with lid, fittings, and purpose-made C.P. side-flush lever (left or right) or a back inlet exposed flushvalve. Bottom inlet water supply must be on same side as flush lever. The suite is designed to flush effectively on 6 litres							
WHB01	1	Junior Low Level Suite - 751358.							
WHB02	3	Vaal Sanitaryware vitreous china "Junior" 104° outlet washdown pan (code 751300) and matching 6 litre cistern (code 7105SL) complete with lid and fittings, and Junior Jazz seat (code 8532Z000).							
		Vaal Sanitaryware 510 x 405mm Hibiscus White vitreous china lavatory basin (product code 7050) with two tapholes including integrated overflow and chainstay hole, bolted to wall with two 10mm bolts (product code 844820).							
		Cameo Vanity Basin - 702803.							
		Vaal Sanitaryware ceramic fireclay 595 x 455mm "Cameo" oval self-rimming vanity basin with three semipunctured tapholes, (i.e. available in zero, one, two or three taphole configurations), and chainstay hole through the centre semi-punctured taphole.							

ARCHITECTS NOTES:

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General Note

ALL WORK AND WORKMANSHIP TO COMPLY WITH N.B.R., S.A.B.S., SANS 10400 AND SANS 204 CODES.

General Note

1. All dimensions and levels to be checked in situ before any work commences.

2. All dimensions and levels to be checked in situ before any work commences.

3. All work to be carried out in accordance with local authority requirements.

4. All work to be carried out in accordance with local authority requirements.

5. All work to be carried out in accordance with local authority requirements.

6. All work to be carried out in accordance with local authority requirements.

7. All work to be carried out in accordance with local authority requirements.

8. All work to be carried out in accordance with local authority requirements.

9. All work to be carried out in accordance with local authority requirements.

10. All work to be carried out in accordance with local authority requirements.

Lighting and Ventilation

1. All lighting to be provided in accordance with SANS 10400 Part 1.

2. All lighting to be provided in accordance with SANS 10400 Part 1.

3. All lighting to be provided in accordance with SANS 10400 Part 1.

4. All lighting to be provided in accordance with SANS 10400 Part 1.

5. All lighting to be provided in accordance with SANS 10400 Part 1.

6. All lighting to be provided in accordance with SANS 10400 Part 1.

7. All lighting to be provided in accordance with SANS 10400 Part 1.

8. All lighting to be provided in accordance with SANS 10400 Part 1.

9. All lighting to be provided in accordance with SANS 10400 Part 1.

10. All lighting to be provided in accordance with SANS 10400 Part 1.

Storm water disposal

1. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

2. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

3. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

4. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

5. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

6. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

7. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

8. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

9. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

10. All storm water disposal to be provided in accordance with SANS 10400 Part 1.

Facilities for Disabled

1. All facilities for disabled to be provided in accordance with SANS 10400 Part 1.

2. All facilities for disabled to be provided in accordance with SANS 10400 Part 1.

3. All facilities for disabled to be provided in accordance with SANS 10400 Part 1.

4. All facilities for disabled to be provided in accordance with SANS 10400 Part 1.

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9. All facilities for disabled to be provided in accordance with SANS 10400 Part 1.

10. All facilities for disabled to be provided in accordance with SANS 10400 Part 1.

Waterproofing

1. All waterproofing to be provided in accordance with SANS 10400 Part 1.

2. All waterproofing to be provided in accordance with SANS 10400 Part 1.

3. All waterproofing to be provided in accordance with SANS 10400 Part 1.

4. All waterproofing to be provided in accordance with SANS 10400 Part 1.

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9. All waterproofing to be provided in accordance with SANS 10400 Part 1.

10. All waterproofing to be provided in accordance with SANS 10400 Part 1.

Glazing

1. All glazing to be provided in accordance with SANS 10400 Part 1.

2. All glazing to be provided in accordance with SANS 10400 Part 1.

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4. All glazing to be provided in accordance with SANS 10400 Part 1.

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9. All glazing to be provided in accordance with SANS 10400 Part 1.

10. All glazing to be provided in accordance with SANS 10400 Part 1.

Fire

1. All fire to be provided in accordance with SANS 10400 Part 1.

2. All fire to be provided in accordance with SANS 10400 Part 1.

3. All fire to be provided in accordance with SANS 10400 Part 1.

4. All fire to be provided in accordance with SANS 10400 Part 1.

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7. All fire to be provided in accordance with SANS 10400 Part 1.

8. All fire to be provided in accordance with SANS 10400 Part 1.

9. All fire to be provided in accordance with SANS 10400 Part 1.

10. All fire to be provided in accordance with SANS 10400 Part 1.

CONSULTANTS:

CIVIL AND STRUCTURAL ENGINEERS: ISIPHEPHO CONSULTING ENGINEERS

FIRE ENGINEER: T.B.A

ELECTRICAL ENGINEER: MVM AFRICA CONSULTING ELECTRICAL ENGINEERS

DEVELOPER:

CLIENT:

PROJECT MANAGER / QUANTITY SURVEYOR:

ARCHITECT:

Kouin Hinde
SACAP Membership Number: 6739
A3 Architects (PTY) Ltd - PA 2226

PROJECT:

ITD LIMPOPO SCHOOLS PROGRAMME
17-1152 Monala Primary

DRAWING TITLE:

GRADE R CLASSROOM PLANS

SCALE:
As indicated

DRAWING DATE:
2013-10-17

DRAWN:
JS

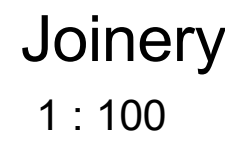
CHECKED:
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DRAWING #:
1152_GR2/02-00-01

REVISION #:
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PLOT DATE:
2021-04-16 12:46:56 PM

10mm IF PLOTTED TO SCALE



0 5 10
100mm IF PLOTTED TO SCALE



A 1	2020_62-2GR-101	A
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NOTES :

- 1) Weavers must comply with Standard Specification of materials and methods to be used - SHS 0400
- 2) The SHS 0400 must be at least 1200 mm above FFL
- 3) The SHS 0400 must be at least 900 mm in diameter
- 4) Cable products to be determined as per site prescribed overall clearance
- 5) SHS 0400 must be secured on all exposed houses (screw all SHS & other design components)
- 6) 6.50 mm mineral wool insulation to be installed where there are supports in buildings
- 7) 6.50 mm pest insulation with bit leading to be installed with wire staples in buildings
- 8) 7.1 wall cavity frames to have standardised aluminium busses from below eaves to top of 1200 mm
- 9) 8.1 trusses to be designed in accordance with SHS 0400 & approved by Design Engineers

SIGNATURE TABLE	
DISCIPLINE	DATE
CLIENT	SIGNATURE
PLAN EXAMINER	
FIRE CONTROL	
ENVIRONMENTAL OFFICER	
ROADS/STORMWATER	
WATER AND SANITATION	
ENVIRONMENTAL OFFICER	


REV NO	DATE :	DESCRIPTION :
REVISIONS		

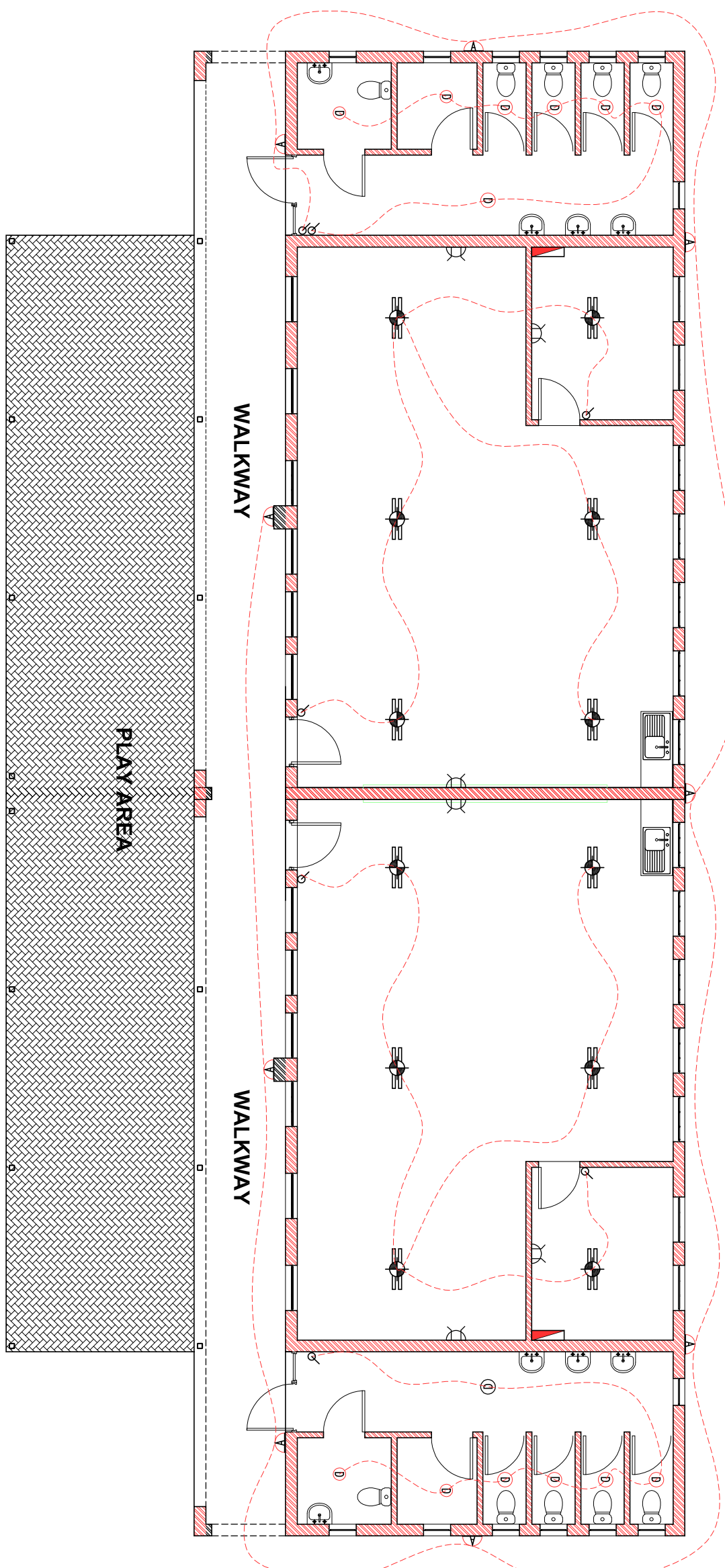
SIZE ON ORIGINAL DRAWING 100 mm

INSTITUTION	DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY
INSTITUTION EMS NUMBER	991104204
SECURITY	

NEW BUILDINGS & ALTERATIONS	CONTRACT • SECTION
DOCUMENTATION & PROCUREMENT	DISCIPLINE
ARCHITECTURAL	PROJECT STAGE
3	

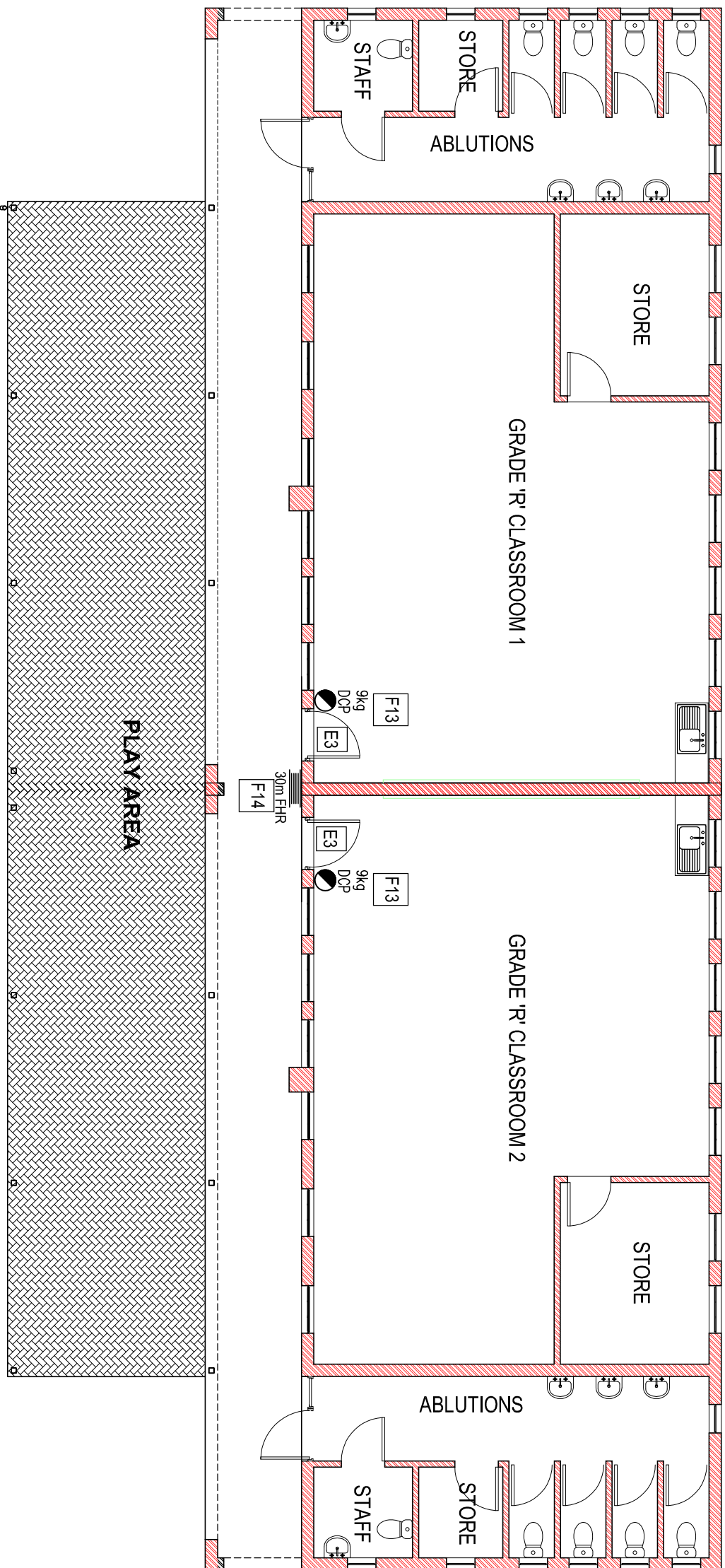
WORK RESERVATION - S&P DIVISION	
GRADE R 2X CLASSROOM	
DRAWING RESERVATION	
ELECTRICAL, LIGHTING & FIRE PLAN	
FILE NO.	ITEM NO.
DESIGN	DRAWING
SCALE	CHECKED
1:100	
RESPONSIBLE PROFESSIONAL	PR. NUMBER
NAME	SIGNATURE
DRAWING CO-ORDINATOR	

CONSULTANT :	 ruben reddy architects		
	6150 15th Ave. N. Suite 100 Minneapolis, MN 55412 Tel: 612.338.8800 Fax: 612.338.8801 Email: info@rubenreddy.com www.rubenreddy.com		
CONTRACTOR :			
	2007 SYSTEM S/C#	AUTO CAD DRAWING NUMBER	FILE NAME REVISION DATE
A 1		2020_62-2GR-102	A

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ELECTRICAL AND LIGHTING PLAN

SCALE 1 : 100



FIRE PLAN

DESIGN SCALE 1 : 100

DISSEMINATION HTJ OFFICES.

SCALE 1 : 100
SIGNIFICATION HTJ OFFICES.

2. PROVIDE MAY DAY PORTABLE FIRE EXTINGUISHERS WITHIN A WEATHER-PROOF CABINET.
3. FIRE PREVENTION REQUIREMENTS TO BE FINALIZED PRIOR TO OCCUPATION PROVIDE PORTABLE SYMBOLIC SIGNALS TO INDICATE POSITIONS OF EXTINGUISHERS
4. PROVIDE APPROVED SYMBOLIC SIGNALS TO INDICATE POSITIONS OF FIRE ESCAPE ROUTES. ALL WORK TO BE BE EXERCISED OUT TO THE LOCAL FIRE DEPT. APPROVAL.

[illegible]

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 ProTorr 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 hours in general, approved filling compacted to at least 93% MD, ASTM/D 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 hours. All filling to be approved by engineer (inspired filling to be minimum G5 or G7 material as per engineer's drawings). Compaction tests to be treated at a rate of one test per 250m³ filling under hours for each layer of 150mm compacted filling. Filling under hours to be provided at a rate of one test per 250m³ filling under hours 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 112/4. Concrete to be casted within 24 hours of application.

Contractor to provide live guarantee

B1. Surface pad - concrete mix as described on structural engineer's drawings but minimum 85mm thick on SANS Specification 1992 type c approved XPS Green 250 micron waterproofing membrane with taps sealed with pressure sensitive tape. Surface pad to be cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide seal. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick laminated 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)

D2. Surface beds on walkways – concrete mix as described on structural engineer's drawings but minimum 60mm thick on SNAIS. Specification 925 Type C approved UTS Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface bed set in alternative sections of maximum 20m² with expansion joints with joints filled with polyurethane seals. Provide 10mm thick blumien impregnated soft board between all walls and concrete and seal joint with polysulfide seals. Provide mesh net no. 193 as per structural engineer's drawings. Floated (1 per sloping or 1 per hatch).

B3. Screted and floor finish on walkways – Average 30mm thick, wood floated 1:4 granolithic (see sloping or 1 per hatch) all external door openings external surface beds must be level with granolithic threshold finish. Finish of edges of screted floor 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

- ✓ 100 x 75 mm timber slatting plugged to walls at 400mm c/c with 19mm minimum caulked head placed on. Sand down to a smooth finish. Stain with Polyseal Woodstain, stain with Plisson Woodcare Stain (W-stain) (colour needed), apply one coat.
- ✓ Plisson Woodcare Ultra Varnish (X-4), thinned with 1:3 mineral turpentine (AZ11) and apply two finishing coats Plisson Woodcare Ultra Varnish (X-4) sunde resistant to stainings
- ✓ Walls and structure
- ✓ D1: External walls - Corofix face bricks in steelrein bond with 10mm wide x 8mm deep square recessed joints
- ✓ D2: Bricks - blockwork 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 3 mm. Tubular section steel columns with 250 mm girth x 4.5 mm thick flat section U-shaped fixing bracket to 200 mm long, twice holed and welded to top, 200 x 200 x 10 mm 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 75 mm masonry anchor bolts. Degrease with Plascosol Degreaser (GR1), remove rust with Plascosol Rust Remover (RR1), prime with Plascosol Metal Primer (P1).

USC01) and apply two coats of Plascron Enamel Dred & Tins high gloss enamel paint - colour as per finish schedule. (500g/l) x 228mm laminated SA Pipe beam twice hotted to steel columns. Sand down to a smooth finish, spray with Polywax Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZ11), apply one coat Plascron Woodcare Stainproof (Amber - PNW22) (stucco varnish) thinned with 1:3 mineral turpentine (AZ11) and apply two finishing coats Plascron Woodcare Stainproof (Amber - PNW22) (stucco varnish).

D4. Lintel - Corobrick brick-on-edge face brick lintel over all window, door and clear openings with 10 x 8mm square recessed joints

UD-1, S-MMS, significant 902, type B approved 975 micron black dpc in walls at floor level and under all window sills (UD-1, S-MMS, significant 902, type B approved 975 micron black dpc in walls at floor level and under all window sills).

UD-2, Internal walls - approved stockbrick in stretcher bond above to receive one coat smooth 13 cement plaster finished with one coat Plaster Primer (UC56) and two coats Plaster Polim Walls & Ceilings (EP) PVA paint, Colour broken white (EP314) or French Chauxerie (S-D-23) as per Principal Agent

UD-3, Internal walls - face brick, plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 15 cement plaster finished with one coat Plaster Primer (UC56) and two coats Plaster Polim Walls & Ceilings (EP) PVA paint, Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Urochem ZU's polysulfide joint sealant after surfaces have been primed with Urochem 614 primer

Window Sills

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

Ceilings and cornices

[illegible]

G.I. Roof sheeting, 0.58mm Bituminous Kip-Dok roof sheeting with Globalcoat finish (colour: Tuff Green) on 50 x 76mm SNAF timber joists at maximum 1200mm centres on painted and approved pre-fabricated truss system. Roof sheeting to be done by ceiling batten and fitted flush in opening. Provide 18 x 50mm meantil surround with 38 x 36mm SA pine cross brander covered with ceiling boarder and fitted flush in opening.

Flooring, Trap door opening between russes to be formed with 39 x 114mm SA pine bearers, nailed to trusses ceiling and fascias

specialist installer providing a live year guarantee
G2. Ridge and hip flashings - 0.8mm galvanneal steel from standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green)
G3. Fascia boards - 10 x 300mm Everite Nulite-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 Polymix M15 & Cellings (EP1) PVA paint. Colour as per finishes schedule.

[illegible]

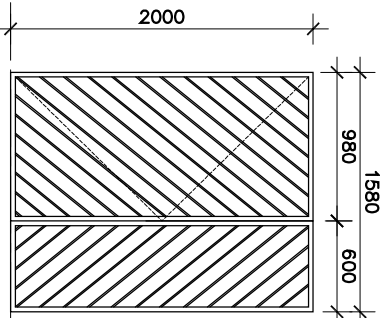
G5. Gutters - 100 x 100mm High gutters formed of 0.55mm galvanised sheet iron with Globacalcoat finish (colour Gembok Sand). All brackets, etc. to be pre-coated with Globacalcoat to match colour of gutters

Flashing	Colour	Material	Weight	Length	Width	Thickness	Volume	Area	Perimeter
50	Downpipes	100mm Diameter extruded, painted to match colour of downpipes	1.00m	100mm	100mm	100mm	0.001m ³	0.01m ²	0.63m
51	Sand	All holden's, brackets, etc. to be pre-cast to a smooth colour of downpipes	1.00m	100mm	100mm	100mm	0.001m ³	0.01m ²	0.63m
52	Barge flashing over barge boards at louvers	0.8mm galvanised steel from standard factory manufacturer FK13 barge or	1.00m	100mm	100mm	100mm	0.001m ³	0.01m ²	0.63m
53	gable flashing with Globalcoat finish (colour Traffic Green)	0.8mm galvanised steel from standard factory manufacturer FK8 headwall flashing and	1.00m	100mm	100mm	100mm	0.001m ³	0.01m ²	0.63m
54	GG Flashings at bottom of louvers	0.8mm galvanised steel from standard factory manufacturer FK8 headwall flashing and	1.00m	100mm	100mm	100mm	0.001m ³	0.01m ²	0.63m
55	FCU cover flashing with Globalcoat finish (Colour Traffic Green)	0.8mm galvanised steel from standard factory manufacturer FK8 headwall flashing and	1.00m	100mm	100mm	100mm	0.001m ³	0.01m ²	0.63m

[illegible]

11 9 mg OCP the extinguisher filled to 400, ~200 × 22mm thick, neutral background with clearmarked edges. Sand down to a fine smooth finish, stop with Polywet Ultraclean, apply one coat Pasonco Woodcare Ultra (x44) stucco varnish to back plate. Provide 150 × 150mm Union Al5068-E030ZNS aluminium the extinguisher sign and Union Al5068-E030ZNS aluminium red down arrow.

DOOR SCHEDULE									
TYPE D01		TYPE D02		TYPE D03					
POSITION:	ALL EXTERIOR DOORS	POSITION:	ALL INTERNAL DOORS:	POSITION:	TOILET CUBICLES				
DOOR TYPE :	813mm x 2032mm Framed, beveled, braced and battened timber door	DOOR TYPE :	813mm x 2032mm solid timber door	DOOR TYPE :	813mm x 2032mm solid timber door 150mm UNDERCUT				
DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish				
FRAME:	1,2mm double rebated frames suitable for 230mm wall to accommodate 813 x 2032 door leaf	FRAME:	1,2mm double rebated frames suitable for 110mm wall to accommodate 813 x 2032 door leaf	FRAME:	1,2mm double rebated frames suitable for 110mm wall to accommodate 813 x 2032 door leaf				
FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint				
DOOR:	Standard approved 'meantit' ledged and braced door	DOOR:	2032x813 solid flush panel door with hardwood both side and 2 concealed edges	DOOR:	2032x813 solid flush panel door with hardwood both side and 2 concealed edges				
FANLIGHT:	NONE	FANLIGHT:	NONE	FANLIGHT:	NONE				
IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved				

<p>TYPE G01</p>		 <p>TYPICAL T.O.C.</p>
POSITION:	ABUTMENTS GATE	
DOOR TYPE :	1580mm x 2000mm	
DOOR FINISH:	3 x coats clear varnish	
FRAME:	1,2mm double galvanized frames suitable for 230mm wall, to accommodate 958 x 2032 door leaf	
FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	
DOOR:	Painted mild steel gate consisting of 10x10mm mild steel bars placed at 100mm centres at a 45° angle, colour to architect's specification	
FANLIGHT:	NONE	
IRONMONGERY:	4 Lever security lockset and satin - chromed handles all approved	

[illegible]

CONSTRUCTION NOTES:

Foundations

concrete to be applied within a 1-hour time of placement. Contractors should provide this information to the specialist 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. ASTM/D density in bays 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 (improved filling to be minimum 45 or 60 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 220m² filling area under floors (as per engineer's drawings). Filling under floors to be treated with oil piston of the PZ2000 filling machine (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 10724. Concrete to be casted within 24 hours of application.

Contractor to provide two year guarantee

BT5 Surface tape - concrete mix as described on structural engineer's drawings but minimum 60mm thick on SANS Specification 952 Type C approved US Green 250 micron waterproofing membrane with tape sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide seal. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick aluminum impregnated steel board between all walls and concrete and seal joint with polysulfide sealant. Provide mesh net, no. 193 as per structural engineer's drawings.

Provide test cubes (1 per 50m² or 1 per batch)

Contractor to provide and conduct concrete's drawings but minimum 60mm thick on SANS Specification 952 Type C approved US Green 250 micron waterproofing membrane with tape sealed with pressure sensitive tape. Surface bed cast in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide seal. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick aluminum impregnated steel board between all walls and concrete and seal joint with polysulfide sealant. Provide mesh net, no. 193 as per structural engineer's drawings.

smooth with edging tool.

B3. Apron - 200mm 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 high (neel) edge excavated in natural or finished ground level.

[illegible][illegible]

joints
 D6, DPC - SANS Specification 992, Type B approved 375 micron black dip in walls at floor level and under all window sills
 D6, mineral walis - approved plaster Primer (UC56) in stretcher bond above to receive one coat smooth 1.3 cement plaster finished off with one coat Plasteron Plaster Primer (UC56) and two coats Plaston Poshin Wails & Ceilings (PA) paint, Colour broken white (EC134) to finish (Cheraneux (Y5-2023)) as per Principial Agent
 D7, mineral walis - place niche joint up to 500mm with approved plaster Primer (UC56) and two coats Plaston Poshin Wails & Ceilings (PA) paint, Colour broken white (EC134) as per finishing schedule
 D8, All covered expansion joints in walls and floors to be filled in with Urochem D20 polysulfide joint sealant after surfaces have been primed with Urochem G14 primer
 Expansion joints in walls and ceilings to be covered with 2 x 500mm Mirpa KR250/30 aluminium cover strips

Window sills
E1. Internal window sills - 15 x 150mm nutee-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 (EP1). PVA paint. Colour as per Paints Schedule
E2. External window sills - Middelwilt Fynbos Gaei face brick-on-edge sloping sill to match walls with 10 x 6mm square recessed joints
Internal cornices and cornices
E3. Internal cornice - 19 x 76mm Mercant cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish.

W1, Plastered ceiling as per finished schedule

E1. Roof sheeting - 0.59mm Brownish/Kip-look roof sheeting with Globalcoat finish (colour Traffic Grey) 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

F1. Ridge and hip flashings - 0.8mm galvanneal steel from standard factory manufactured FPK ridge or hip flashing with cold rolled steel nail flashings.

G1. Floor slabbing - 150mm concrete slab cast over 100mm compacted hardcore and 50mm compacted sand/cement bedding. The floor slabbing shall be formed with 38 x 114mm SA pine bearers, nailed to trusses

H1. Ceiling board and fitted flush in opening. Floorboard 18 x 50mm merchant surrente Truss door and surround to be painted as for ceiling board and fitted flush in opening.

I1. Truss door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses

J1. Roof and fascias

K1. Foot sheathing - 0.59mm Brownish/Kip-look roof sheeting with Globalcoat finish (colour Traffic Grey) 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

L1. Ridge and hip flashings - 0.8mm galvanneal steel from standard factory manufactured FPK ridge or hip flashing with cold rolled steel nail flashings.

G3 (Globalco) (mist) (orange traffic Green)
G3 (Globalco) (mist) (orange traffic Green)
50 x 100 mm Everite Muto-cement fascia boards screw fixed to ruses ends and corner battens with countersunk brass screws. Plange battens – 200 x 80 mm L-verte sokkelslætt bæger boards screw fixed to ruses' ends and corners with countersunk brass screws. Plange battens and batten boards with one coat Plaston Multi-Streep Primer (MSP-1) and joints off with two coats Plaston Polyn Wals & Collings (PWL) PVA paint. Colour as per system's schedule.
G4 Truss system - MITA or other approved panel type pre-fabricated trusses at maximum 1100mm centres with 20 degree pitch. 50 x 75mm SAP profiles at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carboliteum treated before fitting. Truss manufacturer to provide certificate and guarantees for design and erection of trusses as well as detailed drawings.

shop drawings. Submittals to be provided to the principal agent for approval before manufacturing. All sections in contact with trusses to be carbonium treated before fitting in position. Trusses to be secured to walls with 2.5mm diameter galvanneal steel wire lugs, built into the wall minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanneal steel wire. Wire wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanders primed. Seal knots with Parsons Knot Seal (PK2), prime with one coat Parsons Wood Primer (LUC2) and apply two coats Parsons Enamel Doors & Trims paint. Colour as per manufacturer's schedule.

G5. Girders - 100 x 100mm high girders formed of 0.35mm galvanneal steel with Globolcoat finish (colour Gernsack G5). All brackets, etc. to be pre-coated with Globolcoat to match colour of girders.

Gr. 500Mphs - 100m diameter wire, typically carried on 0.30mm galvanneal steel roll with galvanneal finish (Colour: Chemtreat Standard). All holdrums, brackets, etc. to be pre-coated to match colour of downpipes.
Gr. 6: Gauge flashing over large boards at bays. - 0.8mm galvanneal steel non standard factory manufactured FR13 large or gable flashing with Globalcoat finish (Colour: Traffic Green)
Gr. 7: Flashing at bottom of bay - 0.3mm galvanneal steel non standard factory manufactured FR6 headwall flashing and FR7 carrier flashing with Globalcoat finish (Colour: Traffic Green)
FR13S

[illegible]

1.9 kg) drop the extinguisher fitted to a 90 x 200 x 22mm thick meaty backplate with chamfered edges. Stand down to a 1 m fire. Stop with Polycol Woodfire; apply one coat Praxion Woodcare Ultra (X44) suetle varnish thinned with 1:3 mineral turpentine (AZ4H) & then apply two finishing coats Praxion Woodcare Ultra (X44) suetle varnish to back plate. Provide mineral turpentine (AZ4H) Ultra 50066-68025 aluminium fire extinguisher sign and Ultra 50066-68025 aluminium set down arrow sign above the extinguisher.


Stake the hose reel with 20m hose. Sturk 152 x 152 x 3mm, Lihco Al 5066-68A505 aluminium extended red fire hose reel.

hose reel sign & Union A15066-06/ASE08 aluminium engraved red down arrow sign above the hose reel. Water supply in the hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Placon Aquasolv Degreaser (GR1). Remove any dirt with Placon Rust Remover (SR1), prime with Plaston Metal Primer (UCS01) and apply two coats Plaston Interior Duro's tinted (G-Race) paint - colour Signallite (G7). Provide 150 x 150mm Union A15066-EB/2AS aluminium the sign & Union A15066-EB/2AS aluminium red down arrow sign above the hose reel.

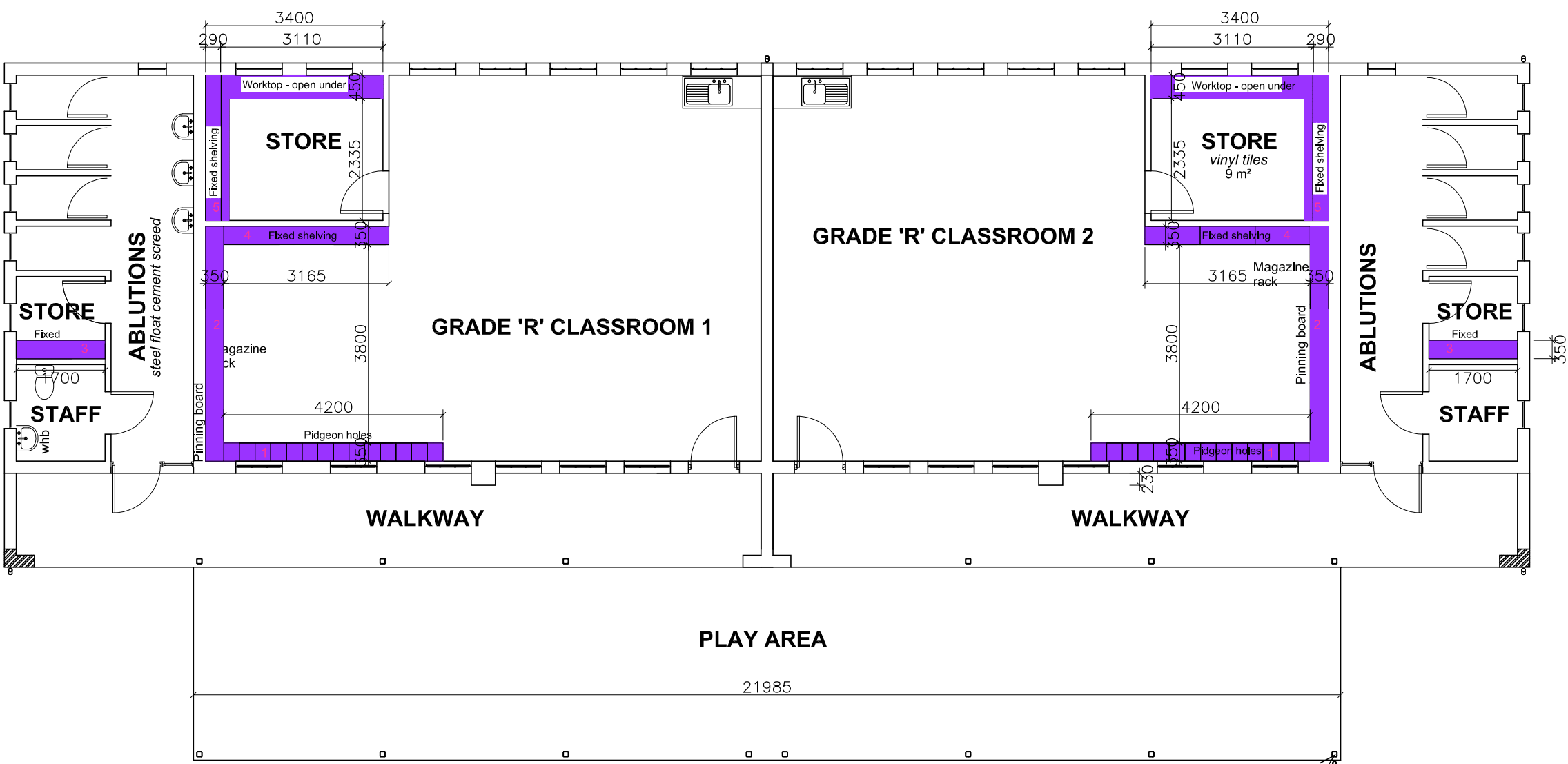
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FIRE CONTROL		
ENVIRONMENTAL OFFICER		
ROADS/STORMWATER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

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INSTITUTION	
DAVID SCARÀ (MODIMOLE RDP SETTLEMENT) PRIMARY	
991104204	
ISSUES:	INSTITUTION DRAWING NUMBER
NEW BUILDINGS & ALTERATIONS	
CONTRACT / SECTION	
DOCUMENTATION & PROCUREMENT	
DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	3
WORK DESCRIPTION, SITE DESIGN	
GRADE R 2X CLASSROOM	
DRAWING DESCRIPTION	
ELEVATIONS	
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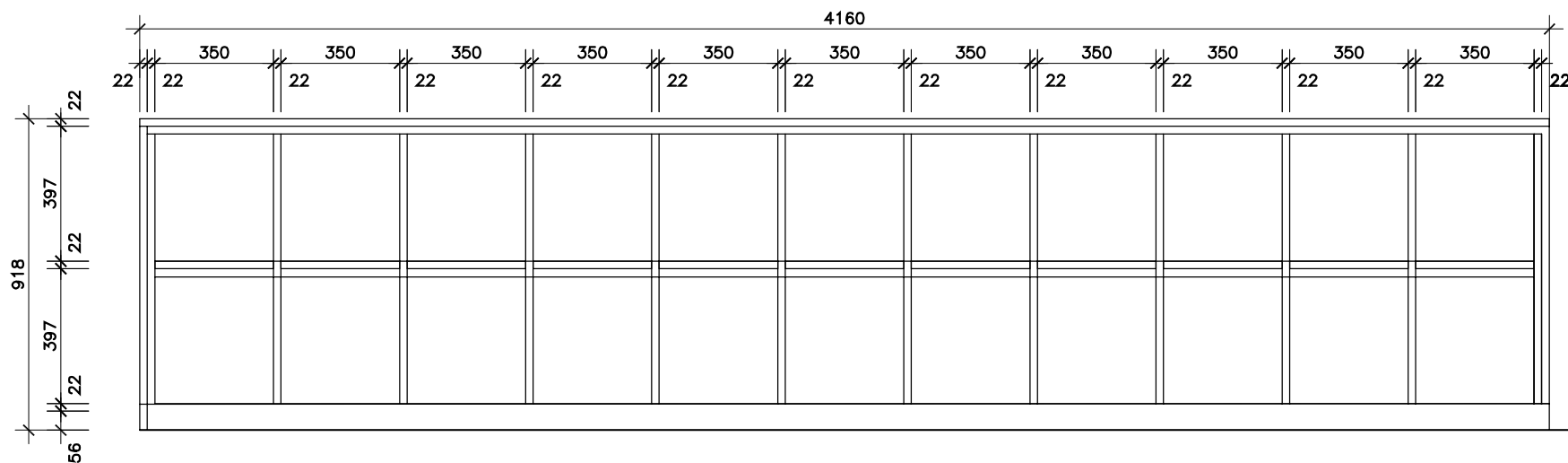
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JOINERY PLAN
SCALE 1 : 100

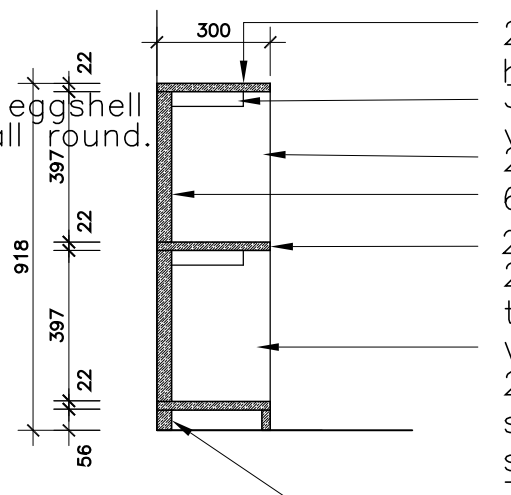
NOTES:

SHELVING
STORE ROOM (4 off per block)
4 Rows 300mm wide x 16mm thick melamine shelving on 1800 high wall bands and brackets at 600mm centres.

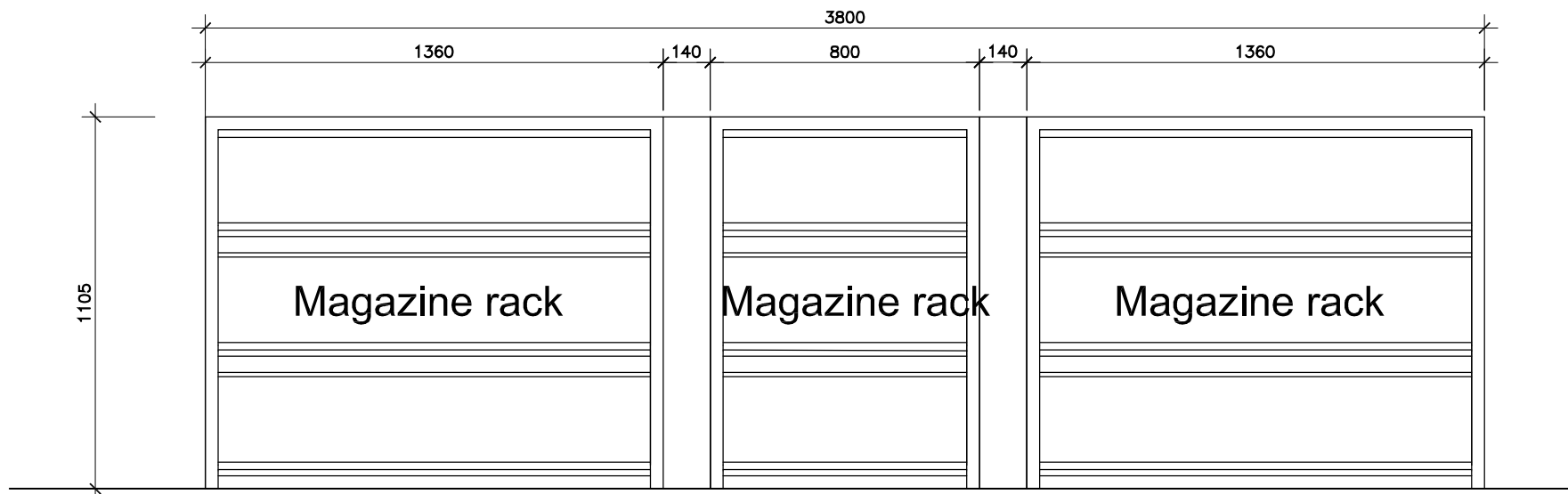


DETAIL 1 (PIGEON HOLE)
Scale 1:20

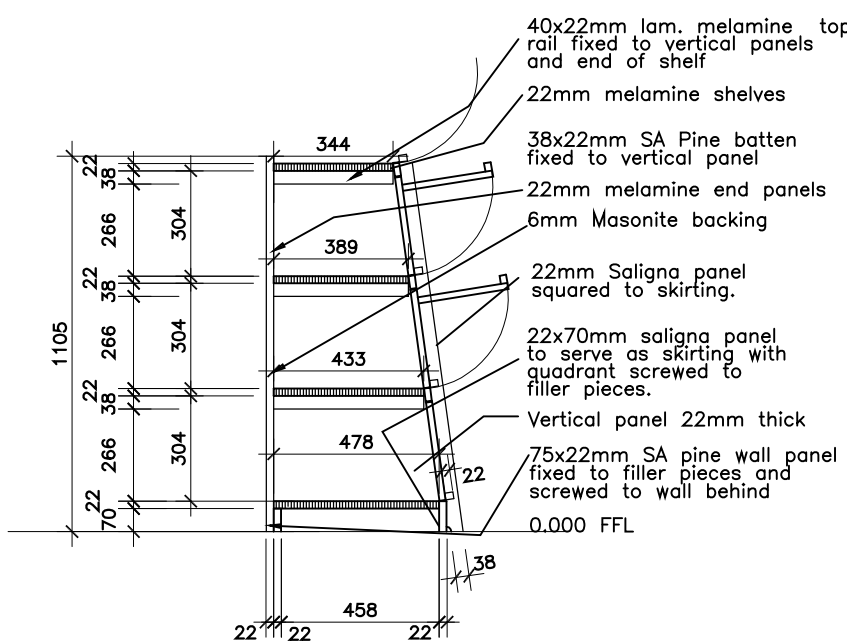
Finish with two coats eggshell polyurethane varnish all round.



TYPICAL SECTION
(PIGEON HOLE)
Scale 1:20



DETAIL 2 (MAGAZINE RACK)
Scale 1:20



TYPICAL SECTION
(MAGAZINE RACK)
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 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 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.
50 x 228mm Laminated SA Pine beam twice bolted to steel columns. Sand down to a smooth finish, stop with Polycell Woodfiller, provide one coat raw linseed oil thinned with 1:3 mineral turpentine (AZH1), apply one coat Plascon Woodcare Sunproof (Amber - PNW22) suede varnish thinned with 1:3 mineral turpentine (AZH1) and apply two finishing coats Plascon Woodcare Sunproof (Amber - PNW22) suede varnish
D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed joints
D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills
D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent
D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.
D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer
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 nuteo-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 Nuteo-fibre-cement boards nailed to 38 x 38mm SAP brandering at 400mm centres maximum with galvanised clout nails. Provide H-profile galvanised jointing strips. Jointing strips to be pre-painted. Prime ceilings with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour White (EPL30). Provide 100mm thick Aerolite insulation on top of ceilings
F3. Plastered ceiling as per finishes schedule

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

G1. Roof sheeting - 0.58mm Brownbilt 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 Nuteo-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 holdbrats, 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 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-E06/2AS aluminium fire extinguisher sign and Union AL5066-E08/2AS aluminium red down arrow sign above fire extinguisher

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union AL5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/2AS aluminium 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 100 mm Built in Bulustrade
- 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. Buttle plastic insulation with full backing to be installed with wire supports in all areas that do not have ceilings
- 7) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
- 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

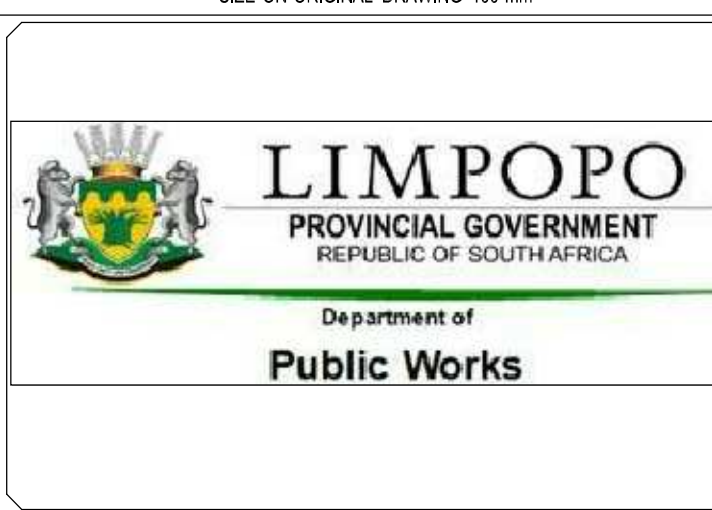
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ROADS / STORMWATER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

REV No	DATE	DESCRIPTION

REVISIONS

SIZE ON ORIGINAL DRAWING 100 mm



INSTITUTION
DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY
INSTITUTION EMIS NUMBER
991104204

SERVICE
NEW BUILDINGS & ALTERATIONS

CONTRACT - SECTION
DOCUMENTATION & PROCUREMENT

DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	3

WORK DESCRIPTION - SUB DIVISION
GRADE R 2X CLASSROOM

DRAWING DESCRIPTION
JOINERY AND DETAILS

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SCALE	1:100
DATE	RESPONSIBLE PROFESSIONAL
	NAM
	SIGNATURE
	PR NUMBER
	DRAWING CO-ORDINATED

CONSULTANT :
ruben redy architects
Suite 4 No 6 Isimisi Office Building, 6 Isimisi Street, Polokwane, 0959 South Africa Tel: +27 15 065 0645, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za

CONTRACTOR :

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ENVIRONMENTAL OFFICER	

REV No	DATE :	DESCRIPTION :



LIMPOPO
PROVINCIAL GOVERNMENT
 REPUBLIC OF SOUTH AFRICA

Department of
Public Works

DAVID SCARA (MODIMOLE RDP
SETTLEMENT) PRIMARY
INSTITUTION EMS NUMBER
991104204


CONTRACT - SECTION

NEW BUILDINGS & ALTERATIONS

DOCUMENTATION & PROCUREMENT	
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ARCHITECTURAL	3
WORKING TECHNOLOGICAL - CIVIL ENGINEERING	

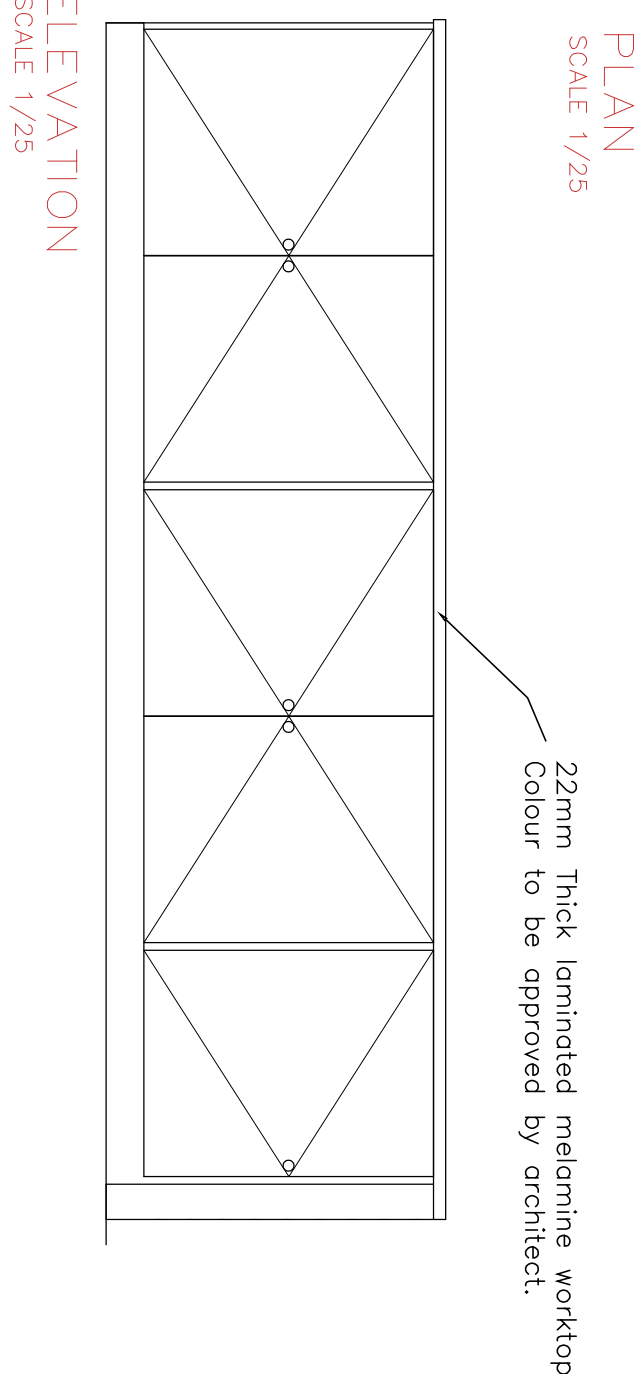
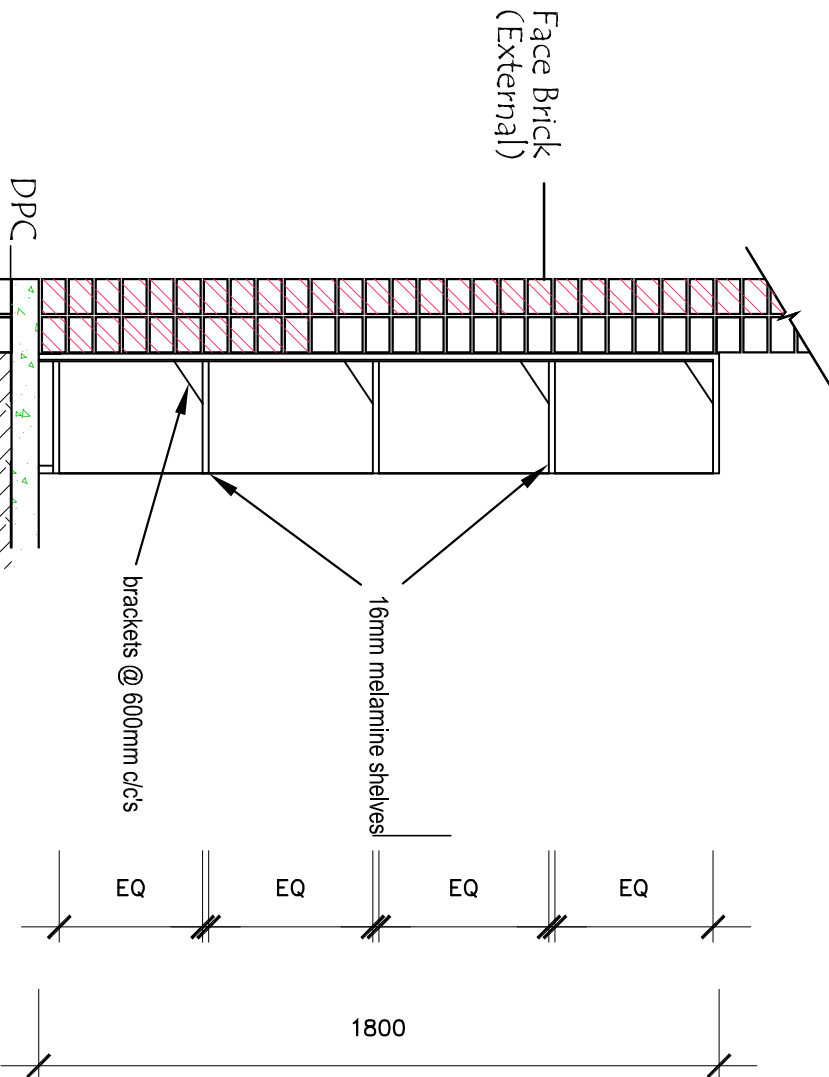
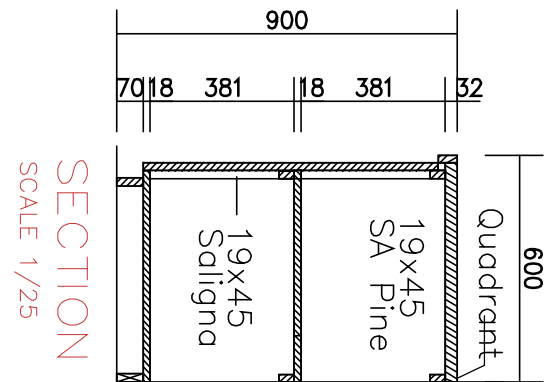
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 **ruben reddy architects**

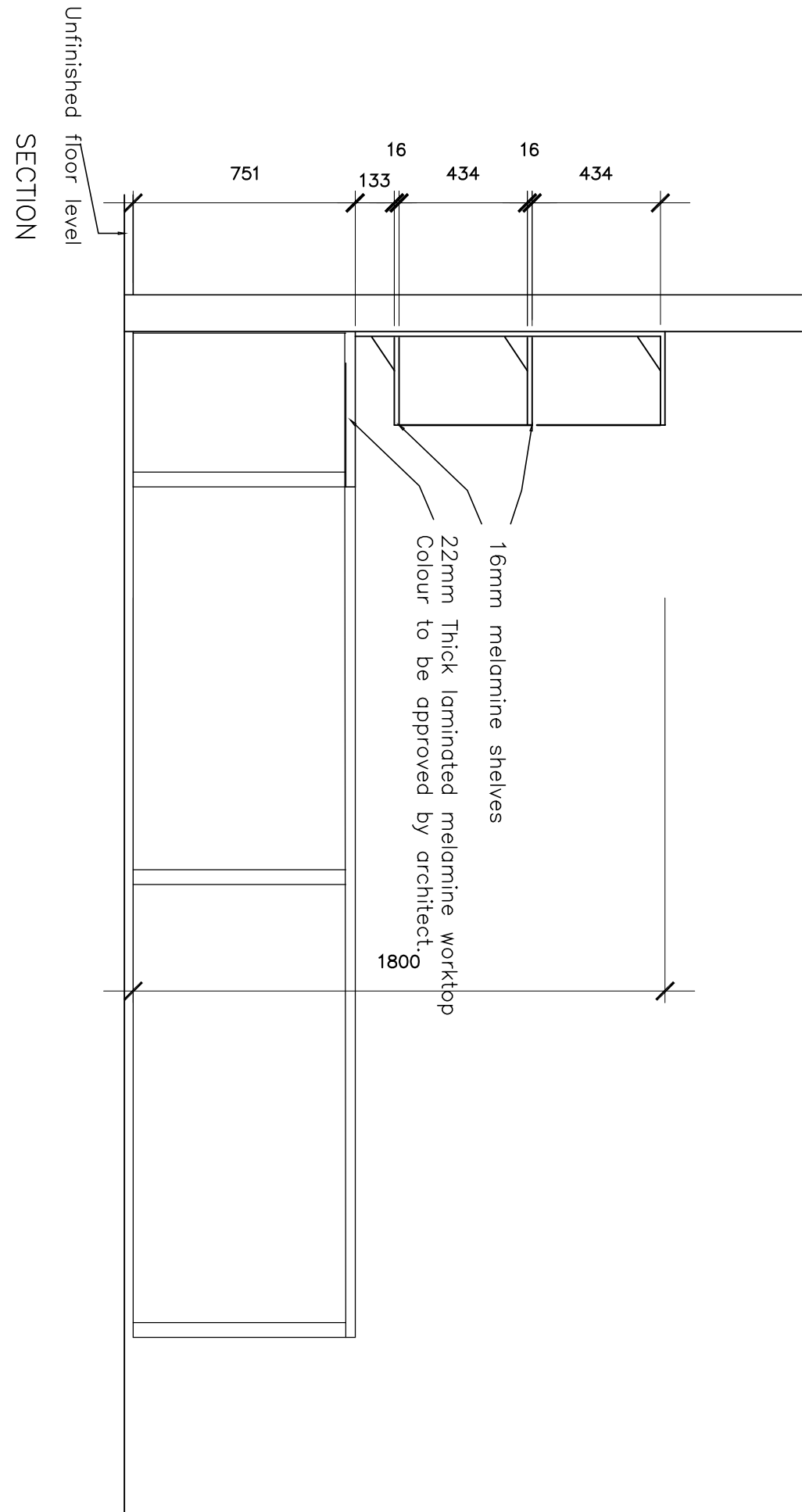
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CAD SYSTEM	AUTO CAD	FILE NAME
SIZE	DRAWING NUMBER	REVZ
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DETAIL 4 (FIXED SHELVES)

Scale 1:20



DETAIL 5 (STORE ROOM WORKTOP WITH SHELVES)

Scale 1:20

CONSTRUCTION NOTES

Foundations

[illegible]

Contractor to provide five year guarantee

14. Surface treat: concrete mix Green 250 micron waterproofing membrane with taps sealed with pressure sensitive tape. Sutroce 952 type 'c' capped UWB Green 250 micron waterproofing membrane with taps sealed with pressure sensitive tape. All saw cut bed joints in alternative sections of maximum 20m² with saw cut joints with joints filled up with polysulfide sealant. 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 ter. no. 193 as per structural engineer's drawings.

Provide test cubes (1 per 15m² or 1 per batch)

12. Silicate sealers (e.g., Coltène) are described in the literature as being suitable for minimum thicknesses of 0.5 mm. Specification 952, Type C approved USG Green 250 micron waterproof membrane with taps sealed with pressure sensitive tape. Surface bed seal in alternative sections of maximum 20m² with expansion joints with joints lined up with poly/sulfide seals. Provide 10mm thick concrete impregnated soft board between all walls and concrete and seal joint with poly/sulfide seals. Provide fresh test no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m² or 1 per half storey).

all external door openings
smooth with edging tool

external surface beds must be level with granolithic threshold finish. Finish of edges if scored

BE 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 : 100 fall away from building. Apron edge by 240mm wide x 115mm deep (incl) edge excavated in natural or finished ground level

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, step with Polycol Woodfiller, stain with Plascon Woodcare Stain (W-range)/colour meranti, apply one coat smooth finish, step with Polycol Woodfiller, stained with Plascon Woodcare Ultra Varnish (AZ11) and apply two finishing coats Plascon Woodcare Ultra (X44) suede varnish to skirtings

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

bottom. Columns to be fixed to top of brickwork below copings with four M10 x 75mm masonry anchor bolts. Degrease with Plaston Aquafixly Degreaser (GR1)" remove rust with "Plaston Rust Remover (RR1)" prime with Plaston Metal Primer

Woodfloor (varnish) - PNWZ2, suede varnish thinned with 1:3 mineral turpentine (AZ7H) and apply two finishing coats Plaston
Woodfloor Sumpfoor (varnish) - PNWZ2, suede varnish

05 DBC - SANS Specification 952 Type B approved joints

1) DC, internal walls - approved scratchcoats in stactcher bond above to receive one coat plaster (1:3 cement plaster) finished with one coat Plaster Primer (UC56) and two coats Plaston Polim Walls & Ceilings (EP) paint. Colour: 'chocolate' (brown) (EPI3/4) or French Chateauxes (Y5-ED2-3) as per Principal Agent

2) DC, internal walls - (face brick plinth up to 850mm with approved scratchcoats in stactcher bond above to receive one coat plaster (1:3 cement plaster) finished off with one coat Plaster Primer (UC56) and two coats Plaston Polim Walls & Ceilings (EP) PVA paint. Colour as per finishes schedule.

D9. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migula KF250/30 aluminium cover strips

E1. Internal window sills - 15 x 150mm rubber-cement window sills, bedded and set in 1:4 cement mortar. Prime with one coat Plaston Multi-surface Primer (WUP1) and apply two coats Plaston Polym Vials & Ceilings (EP), PVA paint. Colour as per finishes schedule.

E2. External window sills - Midekmit Fibros Geel face brick-on-edge slopping sill to match walls with 10 x 6mm square recessed joints.

Ceilings and cornices

F2. Internal coating: spray 70 mm mineral board (lined) to walls at 400 mm centres maximum with one coat of Ultra White Ultra (X44), thinned with 1:3 mineral boarders (AZ-17) and apply two finishing coats of Silestone Woodstone Ultra (X44).

F3. Ceilinging - firm Exterite Vulpic three-component boards nailed to 38 x 39 mm SAP brackening at 400 mm centres maximum with one coat of Ultra White Ultra (X44). Plasterboard joints are to be pre-painted, Prime ceilingings with one coat of Plascon Multi-Surface Primer (WUPF) and finish with two coats Plascon Polvin Walls & Ceilings (EP1), PVA paint, Colour White (EPJ30). Provide 100mm thick Acoustic insulation on top of ceilings

F4. Plastered ceiling as per finishes schedule

ceiling. Trap door opening between trusses to be formed with 38 x 114mm SA pine bearers, nailed to trusses

G2. Ridge and hip flashings - 0.8mm galvanised steel iron standard factory manufactured F43 ridge or hip flashing with specialist installer providing a five year guarantee

G3. Fascia boards - 10 x 300mm Everite Nitec-cement fascia boards screw fixed to truss ends and counter battens 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 Polyn Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.

degrees pitch, 50 x 76mm S&P pultruds at maximum 1200mm centres, 3.8 x 11.9mm S&P wall plate to be carbonless treated before gluing. 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 air trusses to be carbonlaminated before fitting in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire lugs, built into steel minimum 6 courses. Pultruds nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire. Wire wrapped around and tied around rafters and pultruds. All exposed parts of trusses, pultruds, to be sandblasted smooth, seal knots with Plaston Knot Seal (PK2), prime with one coat Plaston Wood Primer (UC2) and apply two coats Plaston Enamel Doors & Trims paint. Colour as per finishes schedule.

65 Downpipes - 100mm Diameter downpipes formed of a 55mm galvanised steel iron with Globalcoat finish (colour Gamshok Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters

Standard, All holdfasts, bars, etc. to be pre-coated to match colour of downpipes	10000
SG7, Barge flashing over barge boards at louvers - 0.8mm galvanised steel from standard factory manufacturer FK13 barge or	10000
gable flashing with Globalcoat finish (colour: Traffic Green)	10000
SG5, Flashings at bottom of louvers - 0.8mm galvanised steel from standard factory manufacturer FK8 headwall flashing and	10000
PK7 counter flashing with Globalcoat finish (Colour: Traffic Green)	10000
Flintings	10000

two wall mounted state boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium clisk rail

HZ. Vires System 200 (code 2317) light grey wall mounted painting board, size 2000 x 1200mm high (2 per classroom)

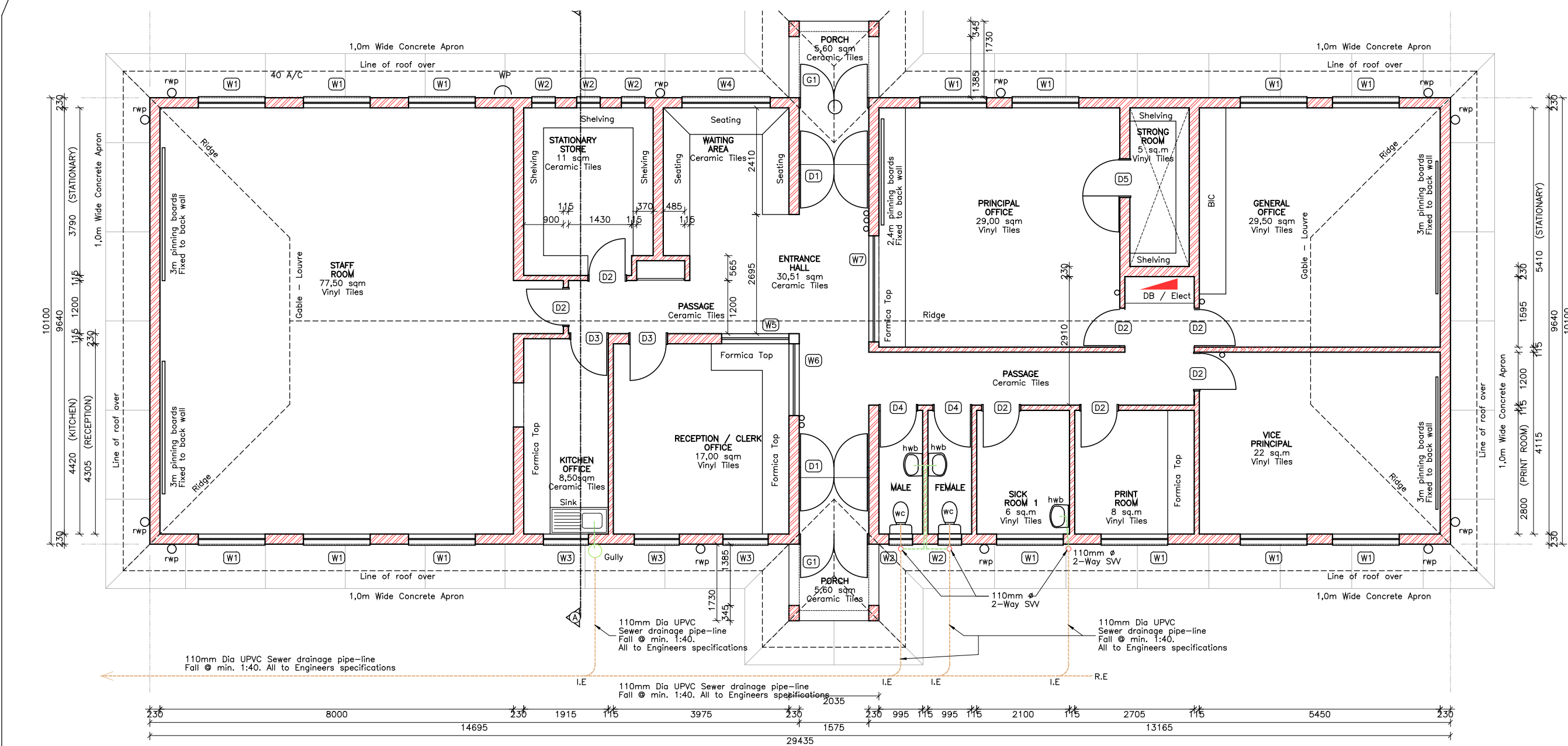
HZ. Greenleaf G25 double door steel cupboard with standard black enamelled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

Two pairs of 19mm thick laminated HZ. Pine shelving, 350mm wide, evenly spaced & fixed from underfloor to topovers with 25mm deep aluminium lip brackets. Brackets to be fixed to 25mm wide x 134mm long double sided joists at 800mm centres.

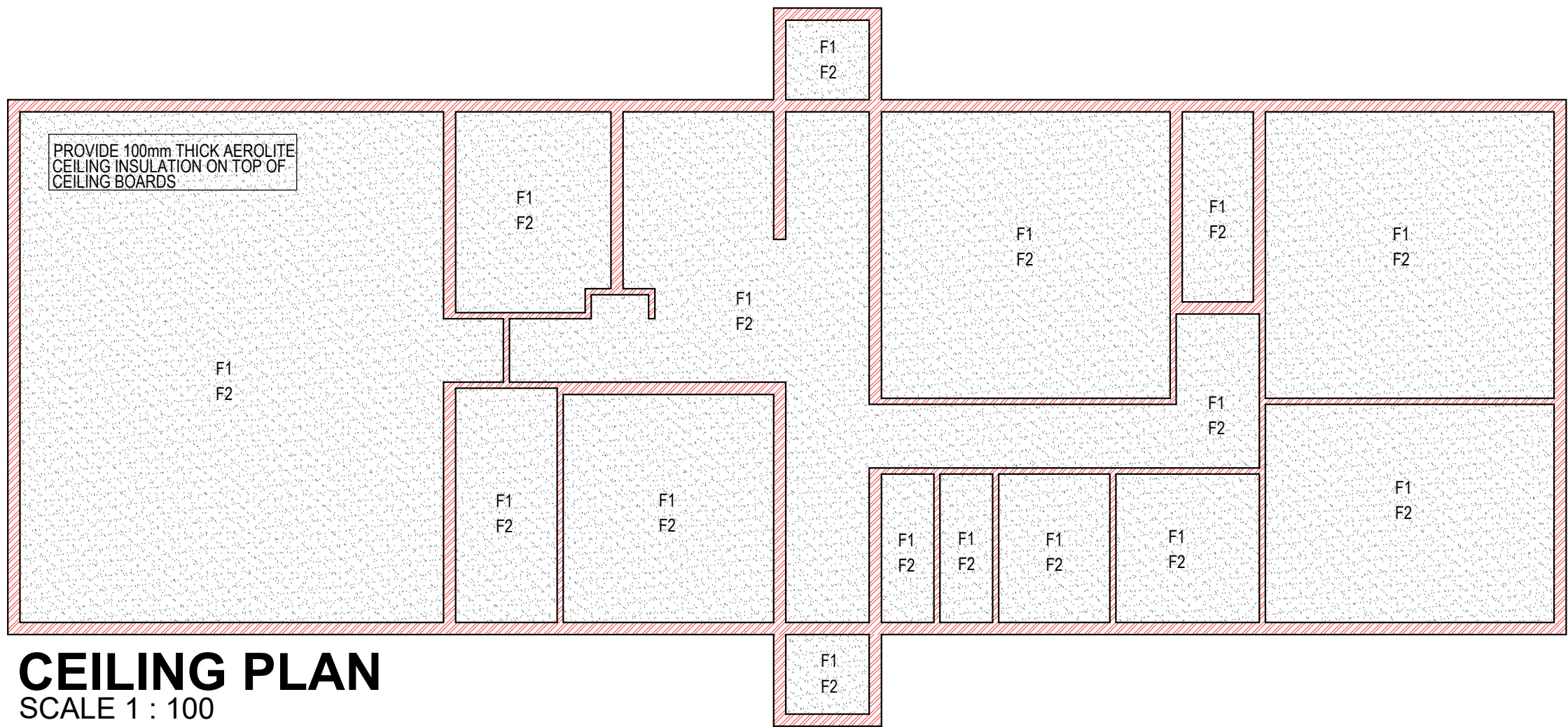
wood floor type one F16 wall panels, Woodcraft Ultra Varnish (X44) tinted down to a smooth finish, stop with Polyurethane coat. Shifter, apply one F16 wall panels, Woodcraft Ultra Varnish (X44) tinted with a 1:3 mineral turpentine (AZH1) then apply two finishing coats Plastron Woodcraft Clear Ultra (X44) suede varnish to shelves

Miscellaneous

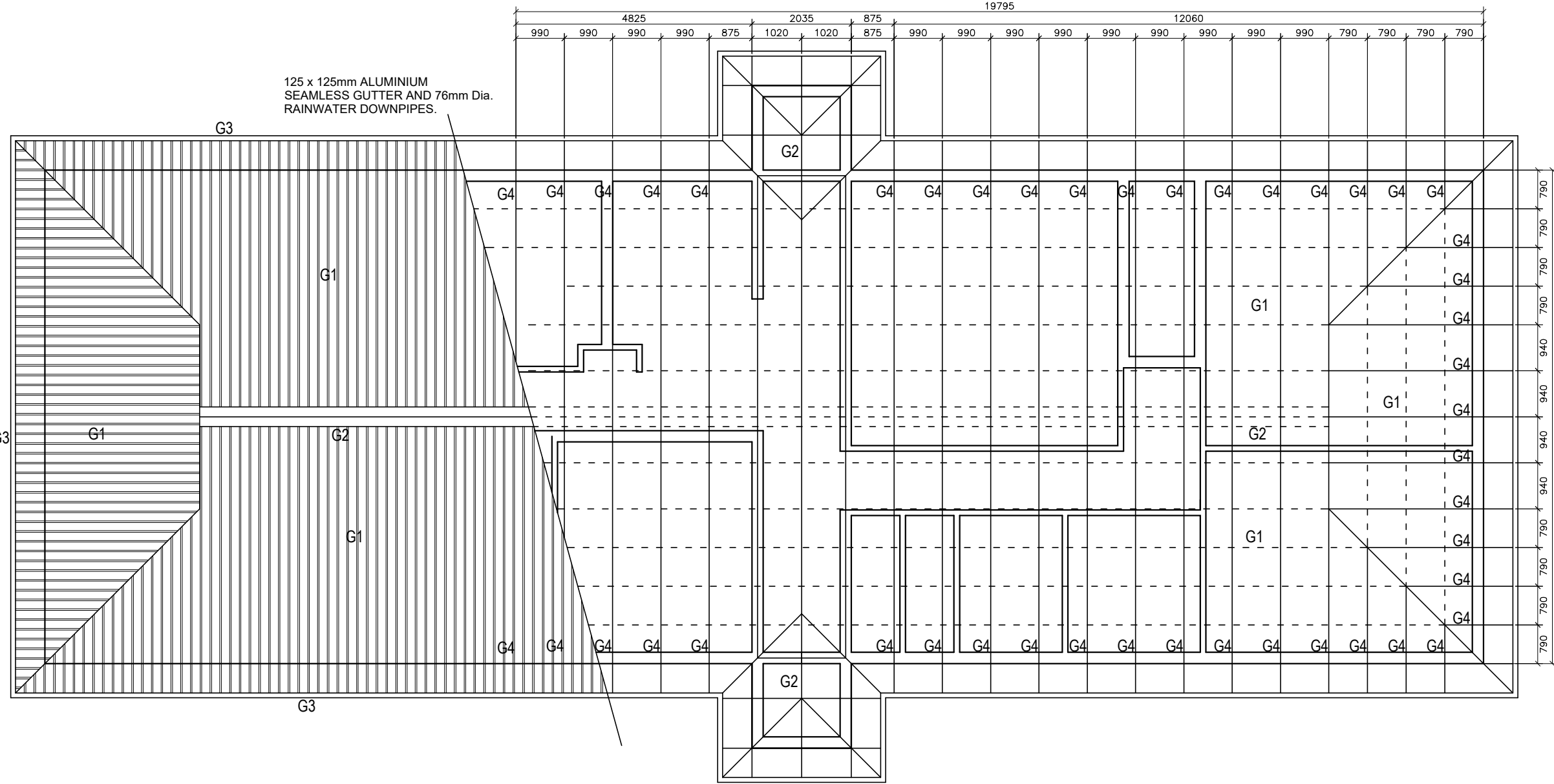
12 Sixteen knee reels with 30m hose, Supply 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452, 1454, 1456, 1458, 1460, 1462, 1464, 1466, 1468, 1470, 1472, 1474, 1476, 1478, 1480, 1482, 1484, 1486, 1488, 1490, 1492, 1494, 1496, 1498, 1500, 1502, 1504, 1506, 1508, 1510, 1512, 1514, 1516, 1518, 1520, 1522, 1524, 1526, 1528, 1530, 1532, 1534, 1536, 1538, 1540, 1542, 1544, 1546, 1548, 1550, 1552, 1554, 1556, 1558, 1560, 1562, 1564, 1566, 1568, 1570, 1572, 1574, 1576, 1578, 1580, 1582, 1584, 1586, 1588, 1590, 1592, 1594, 1596, 1598, 1600, 1602, 1604, 1606, 1608, 1610, 1612, 1614, 1616, 1618, 1620, 1622, 1624, 1626, 1628, 1630, 1632, 1634, 1636, 1638, 1640, 1642, 1644, 1646, 1648, 1650, 16



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 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 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. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed joints

D5. DPC - SANS Specification 952 Type B approved 375 micron black dpc in walls at floor level and under all window sills

D6. Internal walls - approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour broken white (EPL314) or French Chartreuse (Y5-D2-3) as per Principal Agent

D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer

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 - Middelitwit Fyntbos 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 boards nailed to 38 x 38mm SAP brander 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. 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 Nute-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 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) & 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 Aqualolv Degreaser (GR1), remove 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 thr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

NOTES :

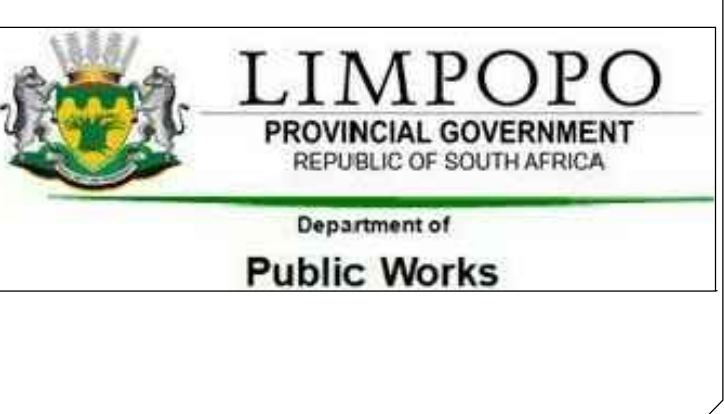
- 1) Workmanship to comply with Standard Specification of materials and methods - to be used - SABS 0400
- 2) Light Switch in Disabled toilet to be at 1200 mm above FFL
- 3) If Step over 900 mm Build in Balustrade
- 4) Gully positions to be determined as per site prescribed overall drainage design
- 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) West Facing Facades to have standardised aluminium louvers from below
- 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

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



INSTITUTION

DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY

INSTITUTION EMIS NUMBER

991104204

SERVICE

NEW BUILDINGS & ALTERATIONS

CONTRACT - SECTION

DOCUMENTATION & PROCUREMENT

DISCIPLINE PROJECT STAGE

ARCHITECTURAL 3

WORK DESCRIPTION - SUB DIVISION

MEDIUM ADMINISTRATION

DRAWING DESCRIPTION

FLOOR, CEILING AND ROOF PLAN

FILE No.

DESIGN

SCALE 1:100

RESPONSIBLE PROFESSIONAL SIGNATURE PR NUMBER

DATE NAME

DRAWING CO-ORDINATED

CONSULTANT :



CONTRACTOR :

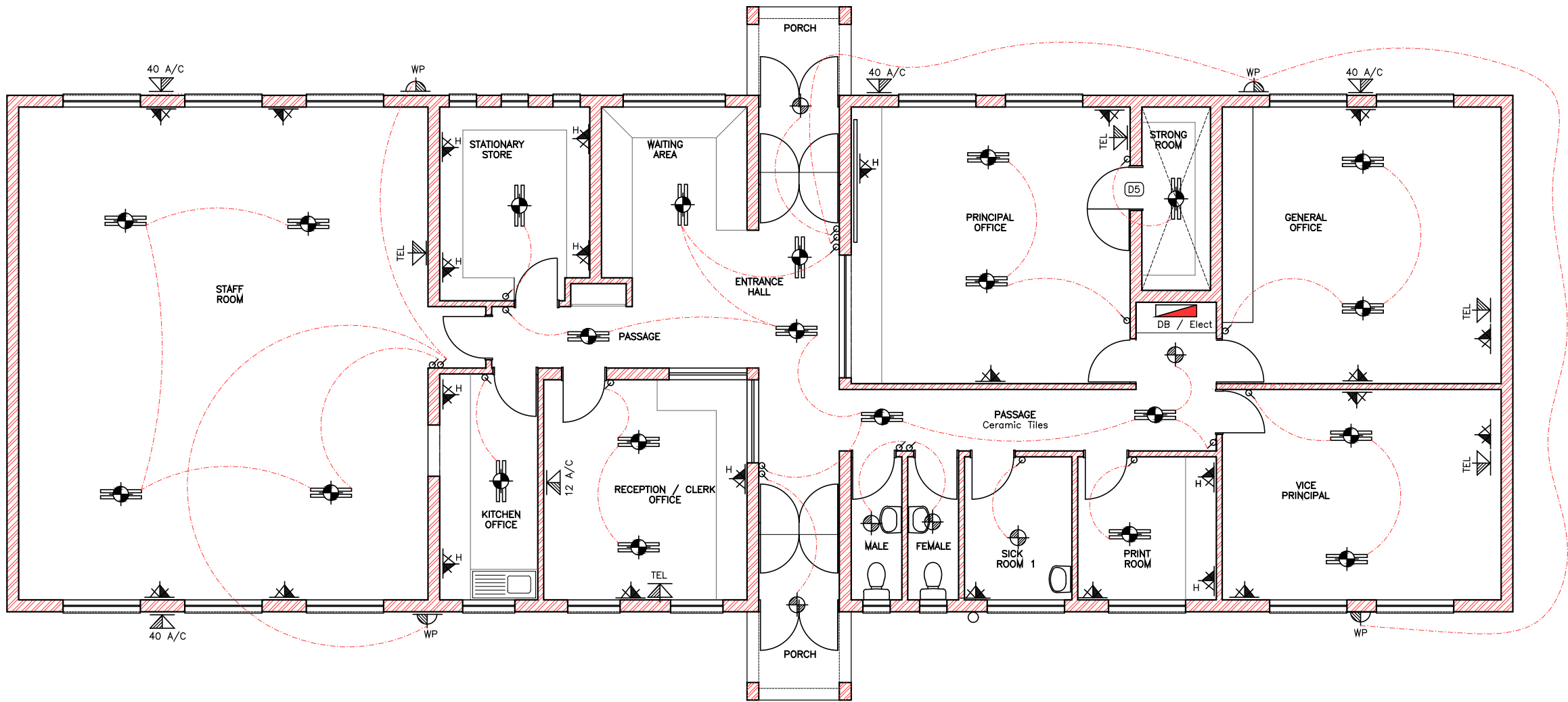
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DRAWING NUMBER

FILE NAME

SIZE

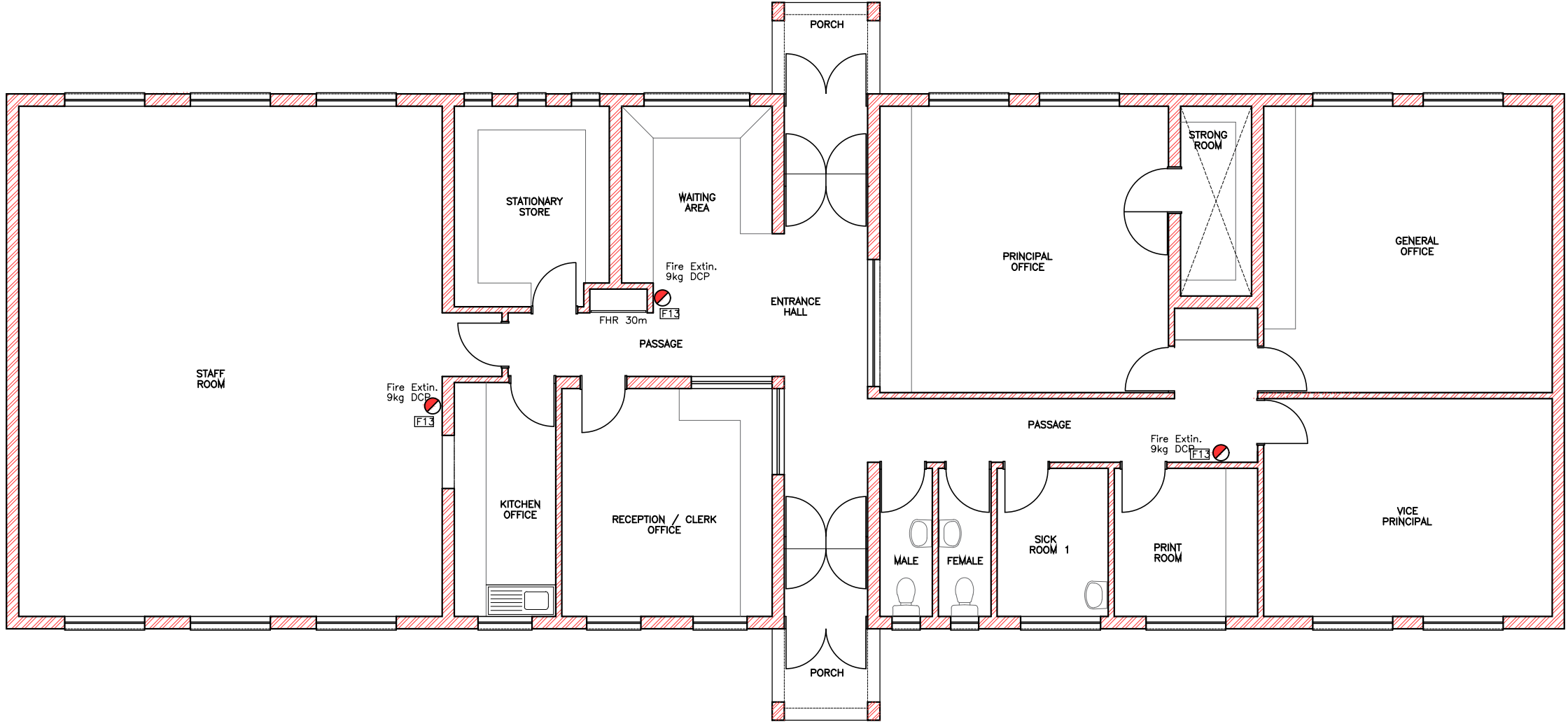
A 1 2020_62-MAD-100 A



ELECTRICAL AND LIGHTING PLAN

SCALE 1 : 100

ELECTRICAL LEGEND			
	CEILING LIGHT FITTING		15 AMP DOUBLE PLUG BUILT IN 340mm ABOVE FFL
	DECORATIVE WALL LIGHT FITTING		15 AMP DOUBLE PLUG POINT BUILT IN 1000mm ABOVE FFL
	DECORATIVE WATERPROOF EXTERNAL WALL MOUNTED LIGHT FITTING		TELEPHONE POINT
	DOUBLE TUBE FLUSH FITTING FLUORESCENT LIGHT COMPLETE WITH DIFFUSERS		12 Amp ISOLATOR FOR A/C UNIT MOUNTED 150mm BELOW CEILING
	D/B DISTRIBUTION BOARD & PRE PAID METERBOX		40 Amp ISOLATOR FOR A/C UNIT MOUNTED 500mm BELOW ROOF'S EAVE
			LIGHT SWITCH



FIRE PLAN

SCALE 1 : 100

FIRE NOTES:

- (CLASSIFICATION H1) OFFICES.
- PROVIDE 9kg DCP PORTABLE FIRE EXTINGUISHERS WITHIN A WEATHER-PROOF CABINET.
- FIRE PREVENTION REQUIREMENTS TO BE FINALISED PRIOR TO OCCUPATION. PROVIDE APPROVED SYMBOLIC SIGNAGE TO INDICATE POSITIONS OF EXTINGUISHERS.
- PROVIDE APPROVED SYMBOLIC SIGNAGE TO INDICATE POSITIONS OF FIRE ESCAPE ROUTES. ALL WORK TO BE CARRIED OUT TO THE LOCAL FIRE DEPT. APPROVAL.

E1	F4	F13
E2	F5	F14
E3	F6	F15
EE1	F7	F16
EE2	F8	F17
EE3	F9	F18
F1	F10	F19
F2	F11	F20
F3	F12	F21

200x200mm

MINIMUM OCCUPANCY

MAXIMUM 1250mm

FFL

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 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 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, 2000mm 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 Aqualsoy Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.

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

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed 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 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

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 Nute-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)

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 Aqualsoy 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 thr 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) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

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		



INSTITUTION
DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY
INSTITUTION EMIS NUMBER
991104204

SERVICE
NEW BUILDINGS & ALTERATIONS

CONTRACT - SECTION
DOCUMENTATION & PROCUREMENT

DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	3

WORK DESCRIPTION - SUB DIVISION
MEDIUM ADMINISTRATION

DRAWING DESCRIPTION
ELECTRICAL,LIGHTING & FIRE PLAN

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

RESPONSIBLE	PROFESSIONAL
DATE	SIGNATURE
NAME	PR NUMBER

DRAWING CO-ORDINATED

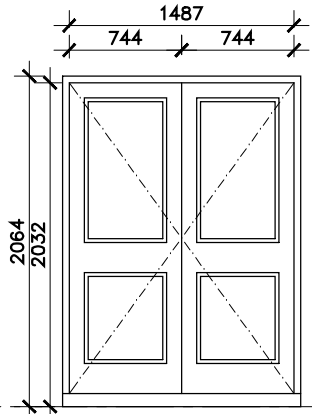
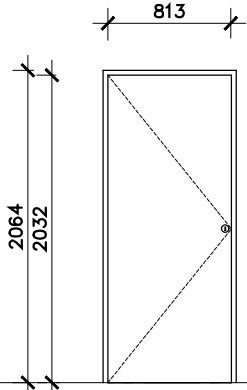
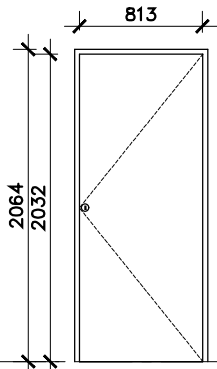
CONSULTANT :
Suite 4 No 6 Isipingo Office Building 6 Isipingo Street, Isipingo, Durban, 4001 South Africa Tel: +27 15 085 0845, Fax: +27 11 475 8364, Email: info@rubenreddyarch.co.za Web: www.rubenreddyarch.co.za

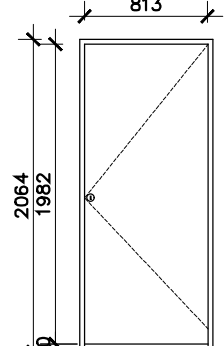
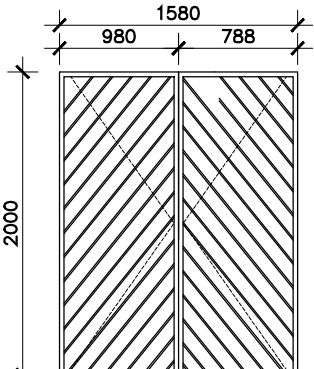
CONTRACTOR :

CADD SYSTEM	AUTO CADD	FILE NAME
SIZE	DRAWING NUMBER	REV
A 1	2020_62- MAD- 101	A



[illegible]

 TYPICAL T.O.C.		 TYPICAL T.O.C.		 TYPICAL T.O.C.	
TYPE D01		TYPE D02		TYPE D03	
POSITION:	ALL EXTERIOR DOORS	POSITION:	ALL INTERNAL DOORS:	POSITION:	ALL INTERNAL DOORS:
DOOR TYPE :	1487mm x 2032mm Framed, ledged, braced and battened timber door	DOOR TYPE :	813mm x 2032mm Framed, ledged, braced and battened timber door	DOOR TYPE :	813mm x 2032mm solid timber door
DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish
FRAME:	1.2mm double rebated frames suitable for 230mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 230mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 110mm wall, to accommodate 813 x 2032 door leaf
FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint
DOOR:	Standard approved 'meranti' ledged and braced door	DOOR:	Standard approved 'meranti' ledged and braced door	DOOR:	2032x813x40mm solid flush panel door with hardboard both side and 2 concealed edges
FANLIGHT:	NONE	FANLIGHT:	NONE	FANLIGHT:	NONE

 TYPICAL T.O.C.		 TYPICAL T.O.C.	
TYPE D04		TYPE G01	
POSITION:	TOILET CUBICLES	POSITION:	ENTRANCE
DOOR TYPE :	813mm x 2032mm solid timber door 150mm UNDERCUT	DOOR TYPE :	1580mm x 2000mm
DOOR FINISH:	3 x coats clear varnish	DOOR FINISH:	3 x coats clear varnish
FRAME:	1.2mm double rebated frames suitable for 110mm wall, to accommodate 813 x 2032 door leaf	FRAME:	1.2mm double rebated frames suitable for 230mm wall, to accommodate 936 x 2032 door leaf
FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint	FRAME FINISH:	1 X coat Zinc Chromate primer 2 x coat approved enamel paint
DOOR:	2032x813x40mm solid flush panel door with hardboard both side and 2 concealed edges	DOOR:	painted mild steel gate consisting of 10x10mm mild steel bars placed at 100mm centres at a 45° angle, colour to architect's specification
FANLIGHT:	NONE	FANLIGHT:	NONE

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 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 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 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. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed joints

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

D7. Internal walls - face brick plinth up to 850mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 1:5 cement plaster finished off with one coat Plascon Plaster Primer (UC56) and two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule.

D8. All exposed expansion joints in walls and floors to be filled in with Urochem 205 polysulfide joint sealant after surfaces have been primed with Urochem 614 primer

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

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

Roof and fascias

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

G2. Ridge and hip flashings - 0.8mm galvanised sheet iron standard factory manufactured FK3 ridge or hip flashing with Globalcoat finish (colour Traffic Green)

G3. Fascia boards - 10 x 300mm Everite Nutek-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule

G4. Truss system - MITek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch, 50 x 76mm SAP purlins at maximum 1200mm centres, 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule.

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

G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes

G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green)

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

Fittings

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

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

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



Miscellaneous

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

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union AL5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon 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 thr 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) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
- 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

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		
		
INSTITUTION		
DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY		
INSTITUTION EMIS NUMBER		
991104204		
SERVICE		
NEW BUILDINGS & ALTERATIONS		
CONTRACT - SECTION		
DOCUMENTATION & PROCUREMENT		
DISCIPLINE	PROJECT STAGE	
ARCHITECTURAL	3	
WORK DESCRIPTION - SUB DIVISION		
MEDIUM ADMINISTRATION		
DRAWING DESCRIPTION		
DOOR SCHEDULE		
FILE No.		ITEM No.
DESIGN		DRAWN
SCALE	1:100	CHECKED
DATE	RESPONSIBLE NAME	PROFESSIONAL SIGNATURE
		PR NUMBER
DRAWING CO-ORDINATED		
CONSULTANT :		
		
CONTRACTOR :		
CADD SYSTEM	AUTO CAD	FILE NAME
SIZE	DRAWING NUMBER	REV
A 1	2020_62- MAD- 104	A

WINDOW SCHEDULE											
TOC (Top of Concrete)											
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 5/8, 1511mm x 1168mm high	WINDOW	Standard horizontal pivot type steel school window type 5/8, 533mm x 900mm high	WINDOW	Standard horizontal pivot type steel school window type 5/8, 1022mm x 900mm high	WINDOW	Standard horizontal pivot type steel school window type 5/8, 2000mm x 1168mm high	WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH	WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH
GLASS	6.38mm Laminated clear safety glass	GLASS	6.38mm Laminated clear safety glass	GLASS	6.38mm Laminated clear safety glass	GLASS	6.38mm Laminated clear safety glass	GLASS	6mm CLEAR SAFETY GLASS	GLASS	6mm CLEAR 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	W07
TYPE	N/A
AREA	ADMINISTRATION RECEPTION
WINDOW	PURPOSE MADE ALUMINIUM TO SUIT SLIDING SASH
GLASS	6mm CLEAR SAFETY GLASS
FITTINGS	N/A
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 Aqualsovl Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.

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

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed 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 - Middelitwit 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 Nutek fibre-cement boards nailed to 38 x 38mm SAP brander 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 Nutek-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 painted timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch, 50 x 76mm SAP purlins at maximum 1200mm centres, 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule.

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

G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes

G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green)

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

Fittings

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

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

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

Miscellaneous

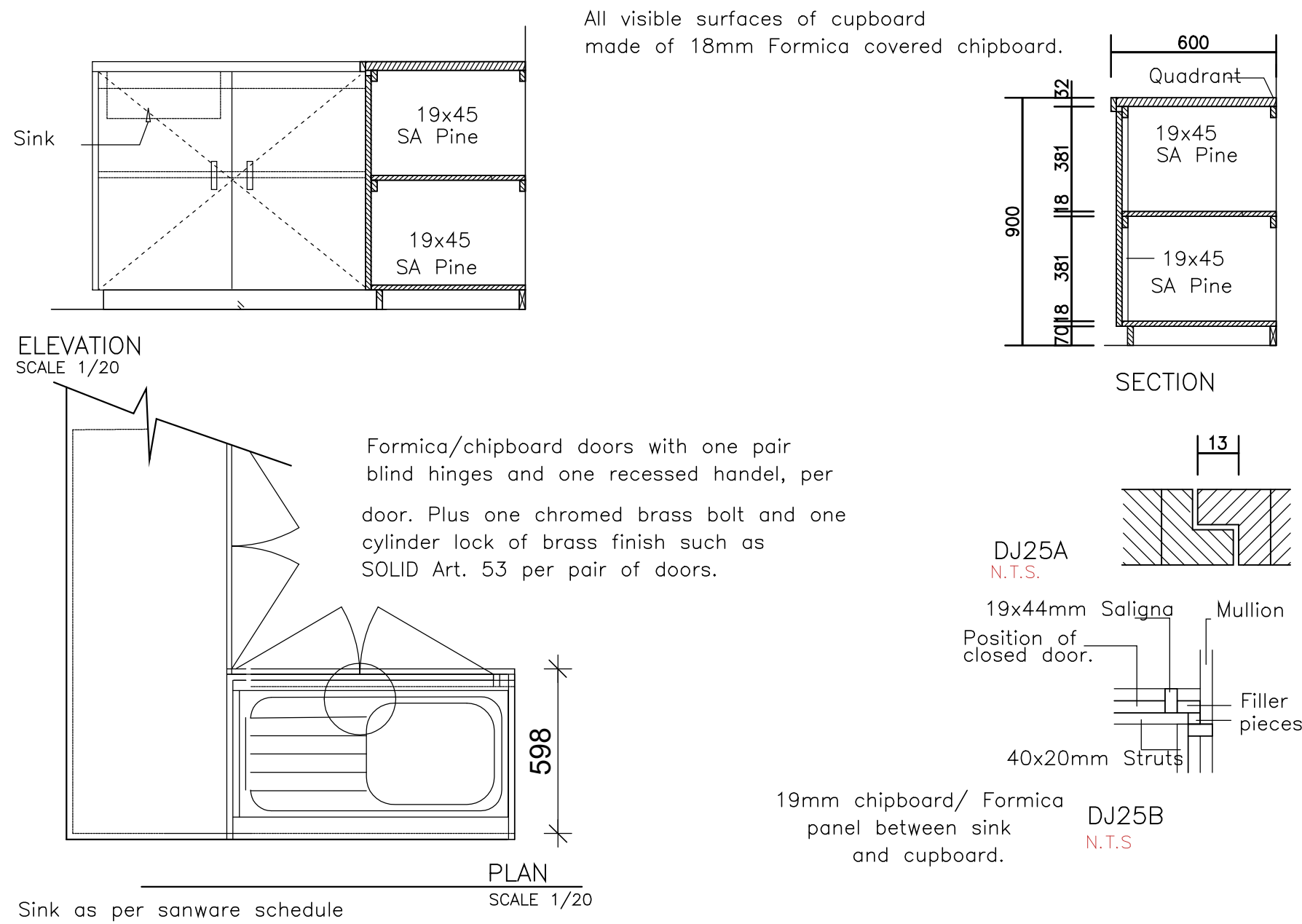
I1 9 Kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a smooth finish, stop with Polycell Woodfiller, apply one coat Plascon Woodcare Ultra (X44) suede varnish thinned with 1:3 mineral turpentine (AZH1) & then apply two finishing coats Plascon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

I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union AL5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aqualsovl 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 thr sign & Union AL5066-E08/2AS aluminium red down arrow sign above fire hose reel.

NOTES :

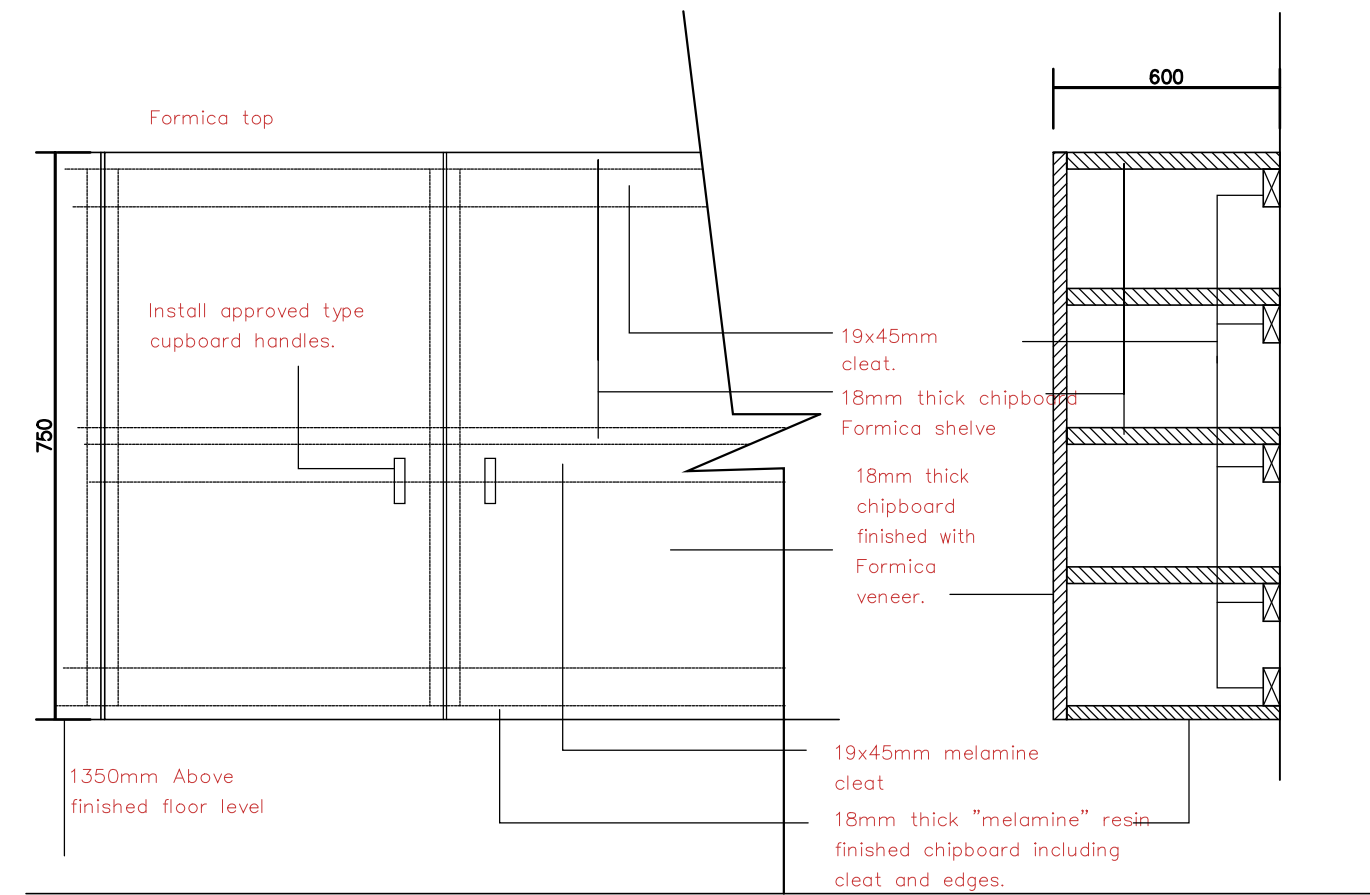
- 1) Workmanship to comply with Standard Specification of materials and methods - to be used - SABS 0400
- 2) Light Switch in Disabled toilet to be at 1200 mm above FFL
- 3) If Step over 900 mm Build in Balustrade
- 4) Gully positions to be determined as per site prescribed overall drainage design
- 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) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

SIGNATURE TABLE		
DISCIPLINE	SIGNATURE	DATE
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FILE No.		ITEM No.
DESIGN		DRAWN
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DRAWING CO-ORDINATED		
CONSULTANT :		
CONTRACTOR :		
CADD SYSTEM	AUTO CAD	FILE NAME
SHEET	DRAWING NUMBER	REVZ
A 1	2020_62- MAD- 105	A



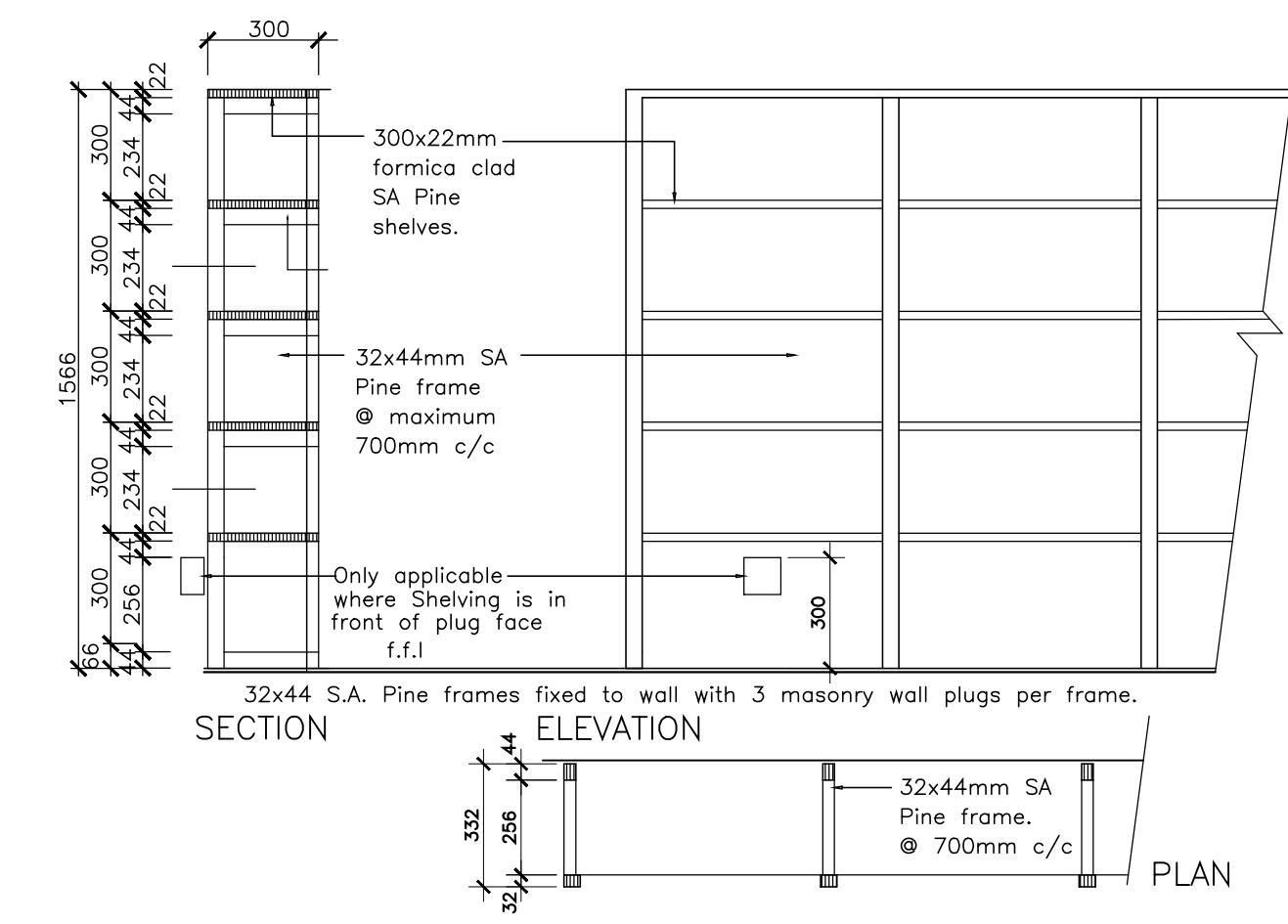
DETAIL 3 Kitchen Cupboards

Section Scale 1:20



DETAIL 6 - Office BIC

Section Scale 1:20



DETAIL 5 (STRONGROOM SHELVES)

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 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 125m³ 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 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 Aqualsoy Degreaser (GR1)", remove rust with "Plascon Rust Remover (RR1)", prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Door & Trims high gloss enamel paint - colour as per finishes schedule.

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

D4. Lintol - Corobrik brick-on-edge face brick lintol over all window, door and clear openings with 10 x 6mm square recessed 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 - Middelitwit 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 boards nailed to 38 x 38mm SAP brander 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 Nute-cement fascia boards screw fixed to truss ends and counter batten with countersunk brass screws. Barge boards - 200 x 80mm Everite socketless barge boards screw fixed to trusses or purlins with countersunk brass screws. Prime fascias and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EPL) PVA paint. Colour as per finishes schedule

G4. Truss system - MITek or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 degrees pitch, 50 x 76mm SAP purlins at maximum 1200mm centres, 38 x 114mm SAP wall plate to be carbolineum treated before fixing. Truss manufacturer to provide certificate and guarantee for design and erection of trusses as well as detailed shop drawings. Shop drawings to be provided to the Principal Agent for approval before manufacturing. All sections in contact with wet trades to be carbolineum treated before fixing in position. Trusses to be secured to walls with 2.5mm diameter galvanised steel wire ties, built into walls minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5mm diameter galvanised steel wire, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, etc. to be sanded smooth, seal knots with Plascon Knot Seal (PK2), prime with one coat Plascon Wood Primer (UC2) and apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule.

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

G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanised sheet iron with Globalcoat finish (colour Gemsbok Sand). All holderbats, brackets, etc. to be pre-coated to match colour of downpipes

G7. Barge flashing over barge boards at louvres - 0.8mm galvanised sheet iron standard factory manufactured FK13 barge or gable flashing with Globalcoat finish (colour Traffic Green)

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

Fittings

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

H2. Vitrex System 2000 (code 2317) light grey wall mounted pinning board, size 2000 x 1200mm high (2 per classroom)

H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

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

Miscellaneous

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

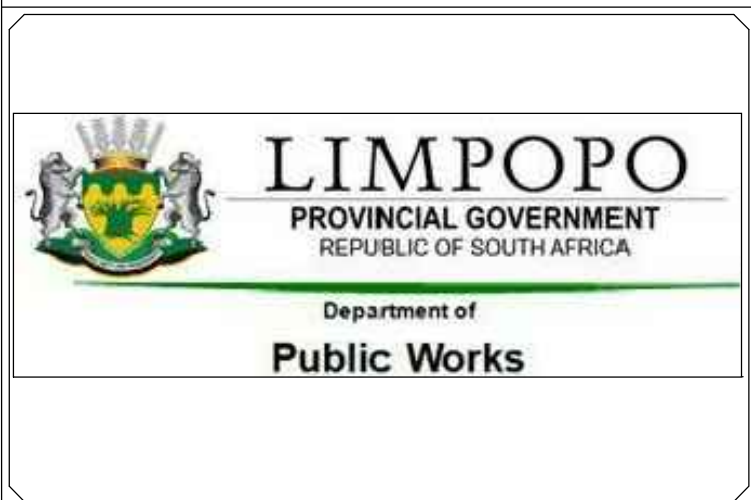
I2 Safex fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire hose reel sign & Union AL5066-06ASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aqualsoy 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 thr 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) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

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		



INSTITUTION		
DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY		
INSTITUTION EMIS NUMBER		
991104204		
SERVICE		
NEW BUILDINGS & ALTERATIONS		
CONTRACT - SECTION		
DOCUMENTATION & PROCUREMENT		
DISCIPLINE	PROJECT STAGE	
ARCHITECTURAL	3	
WORK DESCRIPTION - SUB DIVISION		
MEDIUM ADMINISTRATION		
DRAWING DESCRIPTION		
JOINERY DETAILS		
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DESIGN		DRAWN
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RESPONSIBLE	PROFESSIONAL	
DATE	NAME	SIGNATURE
		PR NUMBER
DRAWING CO-ORDINATED		
CONSULTANT :		
ruben reddy architects		
CONTRACTOR :		
CADD SYSTEM	AUTO CADD	FILE NAME
SIZE	DRAWING NUMBER	REV
A 1	2020_62- MAD- 107	A

ZCS
TCS


- (1) Owners/states to comply with Standard Specification of materials and methods to be used - SABS Q40
- (2) Owners/states to be held at least at 1200 mm above FFL
- (3) Railways to be installed where there are no other overhead power lines
- (4) Safety positions to be determined as per site prescribed annual drawings
- (5) Design to be approved by the relevant authority
- (6) 12.2 coats sealant on all exposed surfaces (sand all SABS & other types)
- (7) 50 mm mineral wool insulation to be installed where there are openings in walls or roof
- (8) Insulation with full bedding to be installed where there are clippings from aluminium busbars from overhead contact system
- (9) Trusses to be designed in accordance with SABS Q400 & approved by the relevant authority
- (10) Engines

SIGNATURE TABLE		
DISCIPLINE	SIGNATURE	DATE
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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

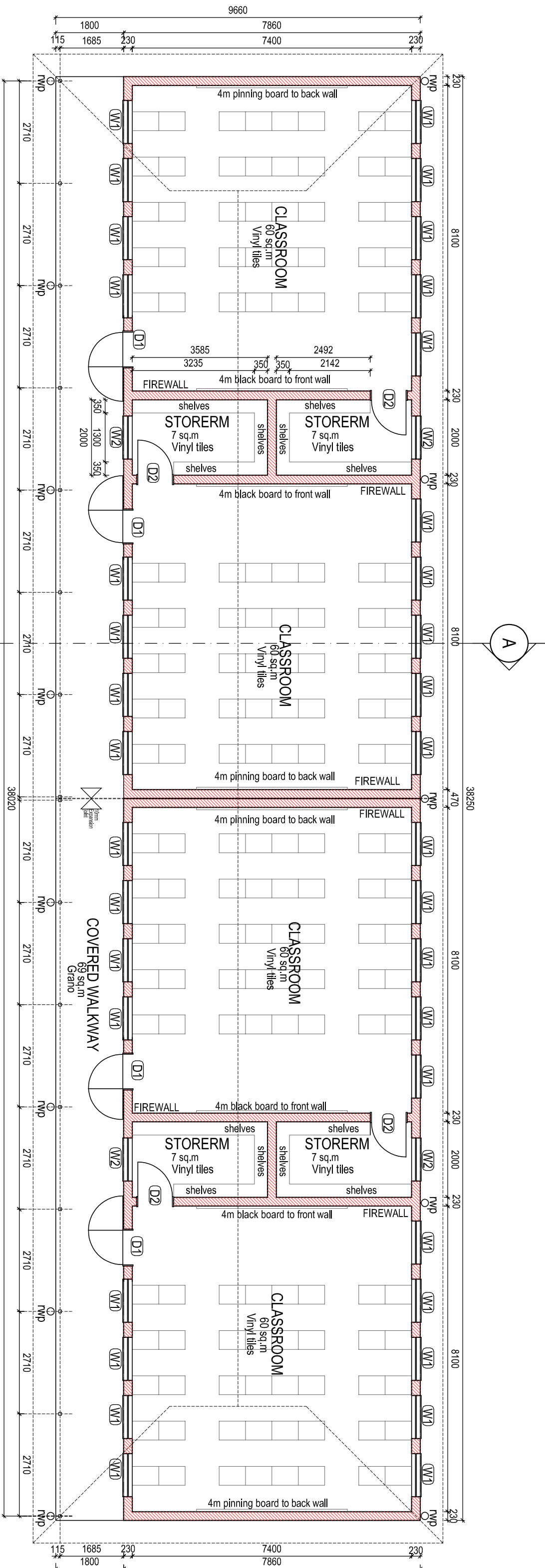
 REPUBLIC OF SOUTH AFRICA

 Department of

Public Works

DAVID SCARA (MIDMOJOLE RDP SETTLEMENT) PRIMARY					
INSTITUTION NAME					
991104204					
SERVICE					
NEW BUILDINGS & ALTERATIONS					
CONTRACT SECTION					
DOCUMENTATION & PROCUREMENT					
DISCIPLINE		PROJECT STAGE			
ARCHITECTURAL		3			
WORK DESCRIPTION : SUB DIVISION					
4 CLASSROOM WITH STORES BLOCK					
DRAWING DESCRIPTION					
FLOOR, CEILING AND ROOF PLAN					
TITLE NO.					TITLE NO.
DESIGN					DRAWN
SCALE	1:100				CHECKED
DATE	REVISIONS / REVISION NUMBER				PR. NUMBER
	SCALE				
DRAWING CO-ORDINATOR					

2020	AUTO CAD			
2020	DRAWING NUMBER			
2020_62-4CIS-100				
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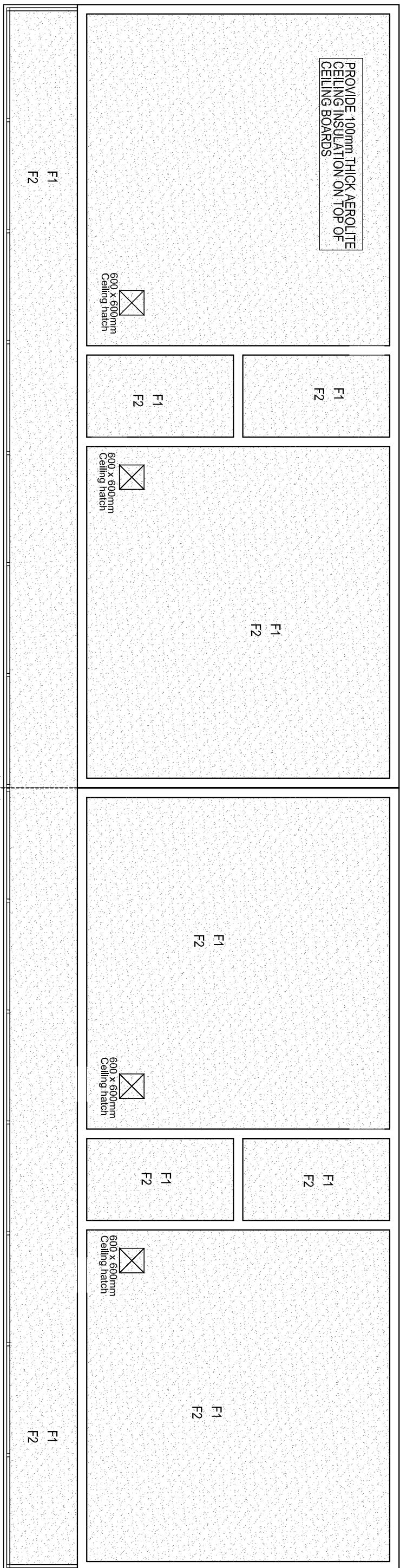
FLOOR PLAN

SCALE 1 : 100

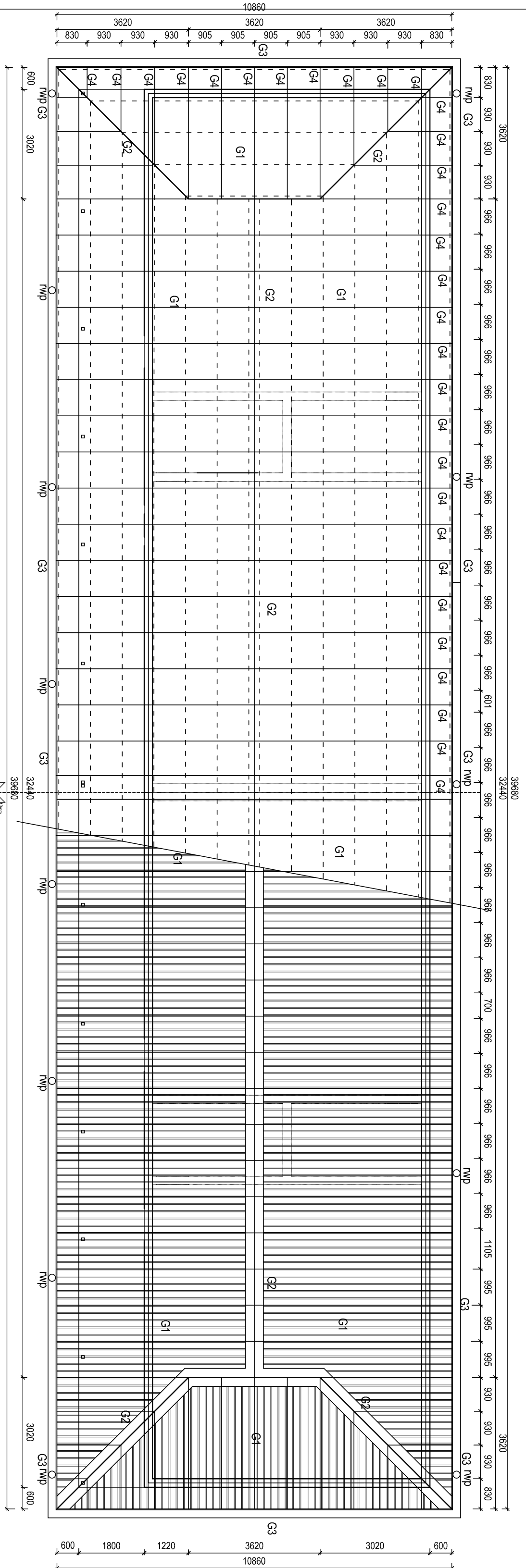
NOTES:

SHELVING
STORE ROOM (4 off per block)

4 Rows 300mm wide x 16mm thick melamine shelving on 1800 high
wall bands and brackets at 600mm centres.

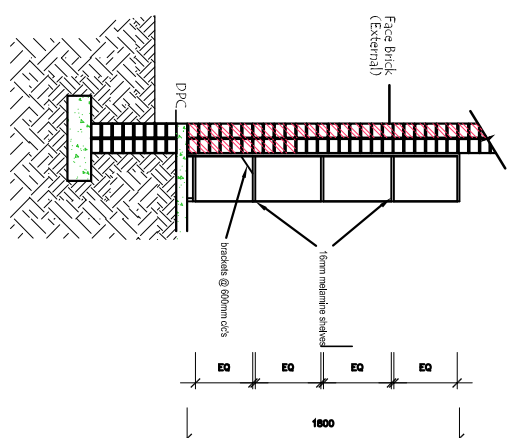


CEILING PLAN
SCALE 1 : 100



ROOF PLAN

SCALE 1 : 100



JOINERY DETAIL
scale 1:50

CONSTRUCTION NOTES

Foundations

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.

42. Backfilling and in general approved filling compacted to at least 93% MD ASTM90 density in layers of maximum 150mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170mm filling must 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 120m² filling area under floors per each layer of 150mm compacted filling. Filling under floors to be treated with an oil sealer for 20m² 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 1174. Concrete to be cast within 24 hours of application.

Surface beads and floors

B1. Surface bead - concrete mix as described on structural engineer's drawings but minimum 68mm thick on SANS Specification 992 type C approved USB Green 250 micron waterproofing membrane with glass sealed with pressure sensitive tape. Surface joints to be 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 or chiseling of concrete. Provide 10mm thick aluminum impregnated steel board between all walls and concrete and seal joint with polysulfide sealer. Provide mesh vel. no. 193 as per structural engineer's drawings. Provide test cubes (1 per 15m² or 1 per batch)

BS, standard BS-60000, 1500 mm wide, 150 mm thick, as shown in Figure 1. The concrete apron was 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 to natural or finished ground level.

CI. 1, 97, 67mm thick polystyrene plugged to walls at 400mm c/c with 19mm mineral coloured bead placed on. Sand down to a 10mm deep square recessed joint.

Plisson Woodcare Ultra (Ux4) stained with 13 mineral turpentine (AZH1) and apply two finishing coats Plisson Woodcare Ultra (Ux4) suede varnish to skirtings

Walls and structure

BD. External walls - Corinthe face bricks in stretcher bond with 10mm wide x 8mm deep square recessed joints

BD. External walls - Blockwork to 115 and 220mm foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below

200 mm long, wires heated and welded to the 20, 200 \times 20 mm thick flat section baseplate, four times folded and welded to bottom. Coatings to be fixed to top of brickwork below copings with hot M10 \times 25 mm masonry anchor bolts. Degrease with Plaston Aquasol Degreaser (GR1), Enamel Dust with Plaston Fast Remover (FR1), prime with Plaston Adhesive Primer (UC501) and apply two coats Plaston Eternat Guard + Times high gloss enamel paint - colour as per finishes schedule. 50 \times 228 mm laminated SA Pine beam twice bolted to steel copings. Sand down to a smooth finish, coat with Polywell Woolfiller, provide one coat bare linseed oil thinned with 1:3 mineral turpentine (NZH1), apply one coat Plaston Woodcare Super Primer (Amber - PNW22) suited varnish thinned with 1:3 mineral turpentine (NZH1) and apply two finishing coats Plaston Woodcare Super Primer (Amber - PNW22) suited varnish thinned with 1:3 mineral turpentine (NZH1).

DLs: DPC + SANS Specification 982 Type B approved 375 micron black spc in walls at floor level and under all window sills.

DLs: Internal walls – approved stockbrick walls in stretcher bond above to receive one coat smooth 15 cement plaster finished broken white (EL314) or French Chauxes (Y5C202) as per Principal Agent.

DLs: External walls – face brick finished up to 860mm with approved stockbrick walls in stretcher bond above to receive one coat smooth 15 cement plaster finished off with one coat Plastron Plaster Primer (UD56) and two coats Plastron Polym Malls & Colings (EL314).

DLs: Internal walls – face brick finished off with one coat Plastron Plaster Primer (UD56) and two coats Plastron Polym Malls & Colings (EL314).

DLs: PVA paint: colour as per finishes schedule.

DLs: Plaster: 15 cement plaster and hours to be filled in with Urochem 205 polyacrylic joint sealant after surface have been primed with Urochem 514 primer.

Exterior joinings - Expansion joints in walls and ceilings to be covered with 2 x 30mm Angkor PC200-50 aluminium cover strips

Window sills - External window sills - 15 x 150mm rubber-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plaston Multi-surface Primer (WUP1) and apply two coats Plaston Polym Walls & Ceilings (EPV) PVAc paint. Colour as per finishes schedule

E2. External window sills - Midelwint Fynbos Gael face brick-on-edge slopping sill to match walls with 10 x 6mm square recessed joints

F1. Internal corners x 76mm Megalux cornice installed to walls at 400mm centres maximum. Sand down to a smooth finish.
FLP with Polycoke Woodfiller[®], stain with Plascon Woodcotex Stain (W-Range) colour (earl grey), apply one coat Plascon Woodcotex Ultra (U-Range) colour (earl grey), thin with 1:3 mineral turpentine (Z-H1) and apply two finishing coats Plascon Woodcotex Ultra (X-44).
 Under varnish (varnish to contrast)
S2. Ceiling boards on Edge Line. Niche: Battenboard ceiling boards nailed to 38 x 39mm S&P battenclad at 400mm centres maximum with 10mm gaps between boards. Apply three coats Plascon Multi-Surface Primer (VWP1) and finish with two coats Plascon Polvin Vails & Ceilings (EP-1). PVA paint Colour White (EPJ-30). Provide 100mm thick Acoustic insulation on top of ceilings
W3. Plastered ceiling as per finishes schedule

ceiling board and fitting into opening. Provide 18 x 50mm meatl surround. Trap door and surround to be painted as for ceiling. Trap door opening between trusses to be formed with 38 x 114mm S.A. pine bearers, nailed to trusses.

Roof and fascias

GT1. Roof sheathing - 0.50mm Brownbilit Kip-bok -rod sheathing with Globalcoat finish (colour Traffic Green) on 50 x 70mm S&P timber battens. Trusses to be spaced at maximum 1200mm centres on patient and approved pre-fabricated truss system. Roof sheathing to be done by

82. Ridge and hip (slats): 0.8 mm galvanneal steel from standard factory manufacturer FK3 ridge or hip flashing with Globalcoat finish (colour: Green)
83. Fascia boards: 10 × 30 mm Events
84. Countersunk brass screws: Bange boards: 20 × 80 mm Events
85. Nutec-centring fascia boards screw fixed to truss ends and counter-batten with countersunk brass screws
86. Prime facials and barge boards with one coat Resicon Multi-Stage Primer (WDP1) and finish with Resicon Multi-Stage Primer (WDP2)
87. Truss system: MT-4 or other approved batten. Truss system at maximum 110 mm centres with 20 mm overlap

Figure 10.30 shows S&P joints at maximum 1200mm centres, 38 x 114mm S&P wall plate to be carbolium treated before being fitted. Truss manufacturer to provide certificate and guarantee for 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 air frames to be carbolium treated before fitting in position. Trusses to be secured to walls with 25mm diameter galvanised steel wire ties, built up with minimum 6 courses. Purlins nailed to trusses must also be secured with 25mm diameter galvanised steel wire ties, twice wrapped around and tied around rafters and purlins. All exposed parts of trusses, purlins, and rafters to be painted smooth, seal knots with Parson Cold Seal (PK2), prime with one coat Parson Wood Primer (UD2), and apply two coats Parson Enamel Doors & Trims paint, Colour as per finishes schedule.

67. Barge flashing over barge boards at louver: 0.2mm galvanised steel (not standard factory manufactured) FK13 barge or galv flashing with Globalcoat finish (colour Traffic Green)

FK7 counter flashing with Globalcoat finish (Colour Traffic Green)

H2. Greenflex System 2000 (cote 2317) light grey wall mounted painted board, size 2000 x 1600mm high (2 per classroom)
H3. Vitreosil G25 double door steel cupboard with standard clear enamelled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)
H4. Five rows of 19mm Thich laminated SA. Pine shelving, 350mm wide, evenly spaced & fixed from understore to 305mm wide slats.
H5. Two rows of 19mm Thich laminated SA. Pine shelving, 350mm wide, evenly spaced & fixed from understore to 305mm wide slats.
H6. Wallpaper, type one cast Plascow, Woodcrete Ultra Varistis (X44) tinted with 1:3 mineral turpentine (AZH1) then apply two coats Shifley, type one cast Plascow, Woodcrete Ultra Varistis (X44) tinted with 1:3 mineral turpentine (AZH1), then apply two coats Shifley, type one cast Plascow, Woodcrete Ultra Varistis (X44) tinted with 1:3 mineral turpentine (AZH1).
Finishing coats Plascow Woodcrete Clear Ultra (X44) suede varnish to shelves
Furniture
Miscellaneous

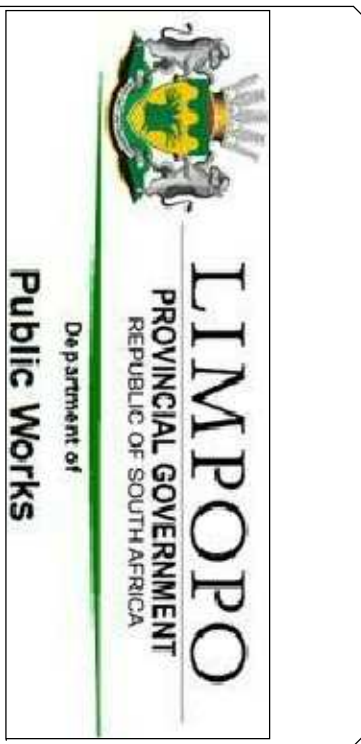
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NOTES :

- | | | | |
|----|---|-----|---|
| 11 | Whenever it is required to comply with Standard Specification of materials and methods to be used - SABS Q400 | 21 | Stainless steel in basket shall be at 1200 mm above FFL |
| 12 | At least 1000 mm | 22 | At least 1000 mm |
| 13 | At least 1000 mm | 23 | At least 1000 mm |
| 14 | At least 1000 mm | 24 | At least 1000 mm |
| 15 | At least 1000 mm | 25 | At least 1000 mm |
| 16 | At least 1000 mm | 26 | At least 1000 mm |
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| 90 | At least 1000 mm | 100 | At |

SIGNATURE TABLE		
DISCIPLINE	SIGNATURE	DATE
CLIENT		
PLANT EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL OFFICER		
ROADS / STORMWATER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

REV NO	DATE :	DESCRIPTION :
REVISIONS		
SIZE ON ORIGINAL DRAWING : 100 mm		



INSTITUTION	DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY
INSTITUTION ENIS NUMBER	001106204

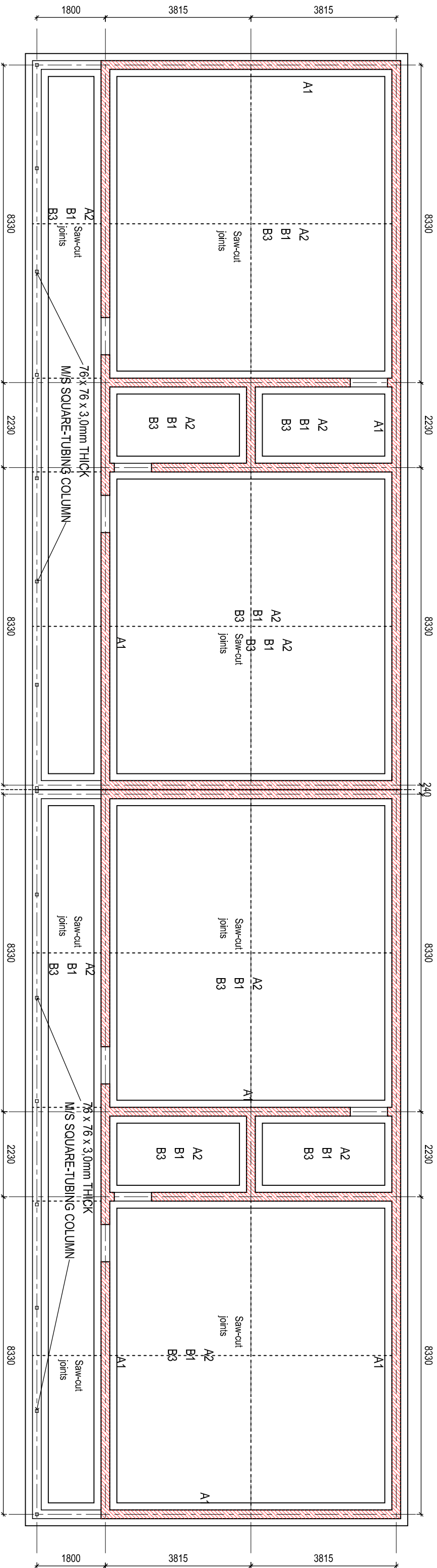
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 DOCUMENTATION & PROCUREMENT
 DISCIPLINE PROJECT CHASE

ANNUAL GENERAL	3
WORK DESCRIPTION - SUB DIVISION	
4 CLASSROOM WITH STORES BLOCK	
DRAWING DESCRIPTION	
FOUNDATIONS PLAIN SECTION & DETAIL	

FOUNDATION PLAN, SECTION & DETAIL			
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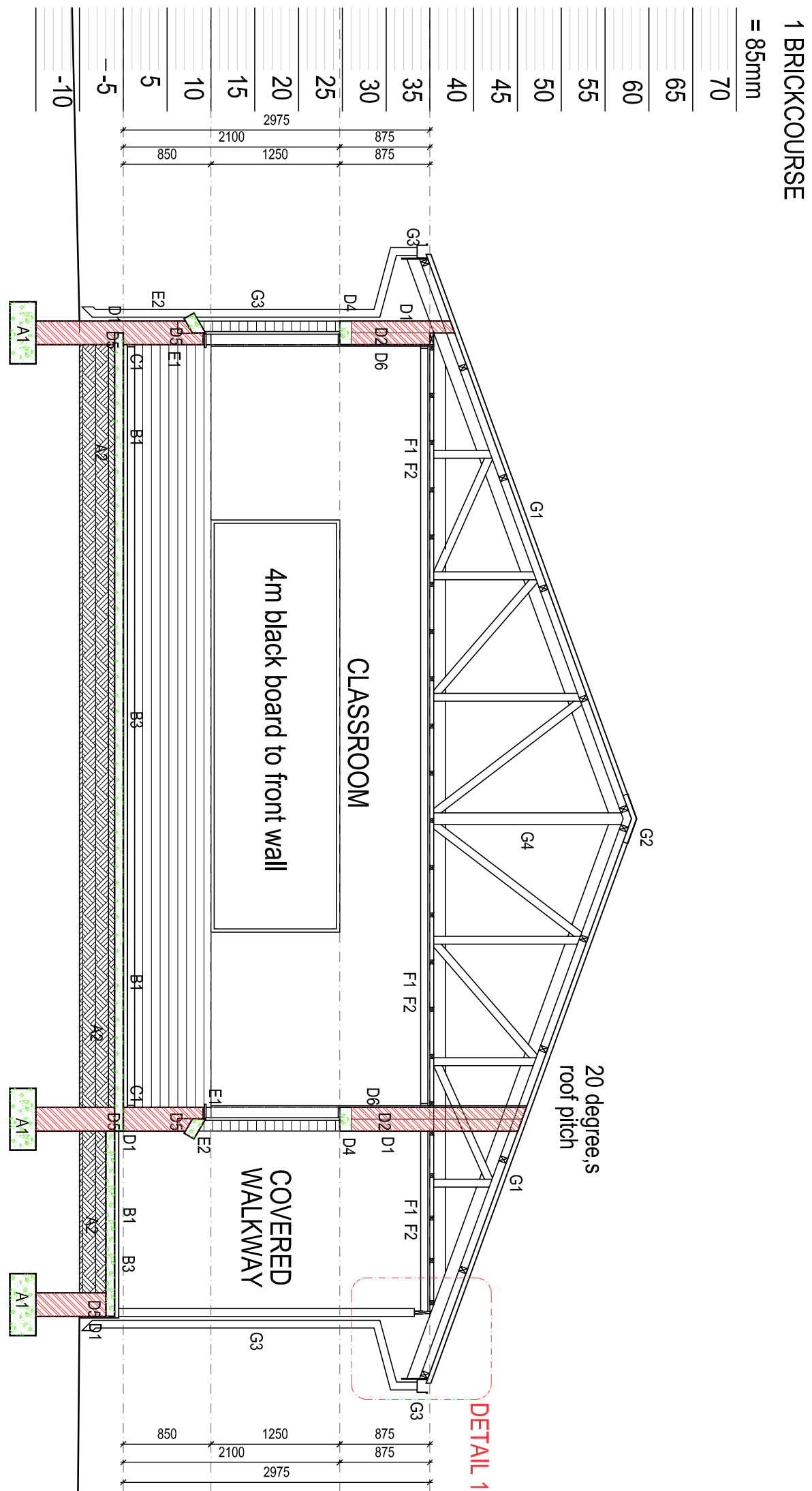


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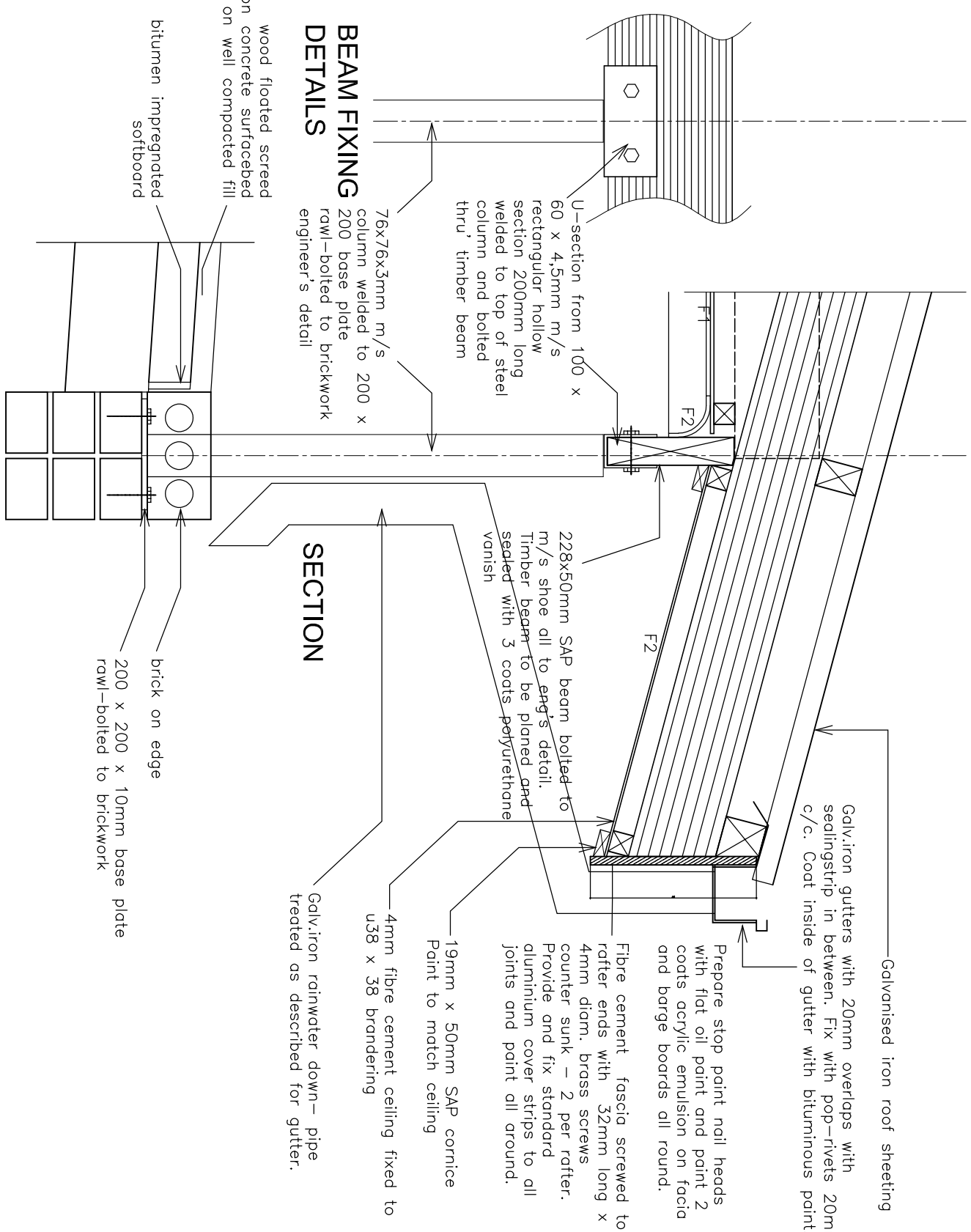
FOUNDATION PLAN

SCALE 1 : 100



SECTION A-A

SCALE 1:50



DETAIL 1
SCALE 1:10

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 ProTorr 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.

12. Backfilling and filling under hours in general, approved filling compacted to at least 93% ρ_{std} . ASTM density in bays of maximum 150 mm - refer to engineer's drawings for detail in case of poor soil conditions. Minimum of 70 mm filling to be provided above natural or compacted ground level under hours. All filling to be approved by engineer. 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 220 m² filling area under hours (filling compacted by 150 mm compacting filling). Filling under hours to be treated with all posson of the PZHR series under hours. 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 112/4. Concrete to be casted within 24 hours of application.

Slab Surface beads and floors: Surface beads and floors shall be constructed in accordance with the following:

- 1. Surface bead - concrete mix as described on structural engineer's drawings but minimum 65mm thick on SANS Specification 552 Type 2 approved USB Green 250 micron waterproofing membrane with joints sealed with pressure sensitive tape. Surface bead cast in alternative sections of maximum 20m² with saw cut joints with tops filled up with polyisulthane seal. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick nitrogen impregnated soft board between all walls and concrete and seal joint with polyisulthane sealer. Provide mesh free, no 193 as per structural engineer's drawings.

[illegible]

C1: 19 x 76mm fibre-reinforced slugging plugged to walls at 400mm c/c with 19mm meranti (colour: cedar meranti), sand down to a smooth finish.
 C2: 19 x 76mm fibre-reinforced slugging plugged to walls at 400mm c/c with 19mm meranti (colour: cedar meranti), apply one coat of Plisson Woodcare Ultra Varnish (X4), thinned with 1:3 mineral turpentine (AZH11) and apply two finishing coats Plisson Woodcare Ultra Varnish (X4).
 D1: External walls - concrete face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints.
 D2: External walls - concrete face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints.
 D3: Brickwork - hollowcore to 115 and 230mm foundation walls - every 2nd course. Superstructure walls - every 6th course, over openings formed in brickwork as per table above.

[illegible]

DPC - SANS Specification 852 Type B approved 75% mineral black grit in walls at floor level and under all window sills. Internal walls - approved smooth walls in stretcher bond above to receive one coat smooth (P15 cement plaster finished with EC1314) or French Chauxes (Y50202) as per Principal Agent.

DBD Internal walls - face brick plinth up to 860mm with approved smooth plaster (UD56) and two coats Plaston Pinalis & Smith. 15 cement plaster finished off with one coat Plaston Plaster Primer (UD56) and two coats Plaston Pinalis & Smith.

BD All exposed excavation joints in walls and floors to be filled in with Urochem 205 polyurethane joint sealant after surfaces have been primed with Urochem P14 primer.

Internal window sills – Prime with one coat Plascon Multi-surface Primer (WUP1) and apply two coats Plascon Polvin Walls & Ceilings (EPV). Paint, Colour as per finishes schedule.

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

F3. Internal corner (19.76mm) Meranti cornice nailed to walls at 400mm centres maximum. Sand down to a smooth finish. Top with Polycoat Woodcote[®] stain with Plascron Woodcote[®] stain (Warrange Colour meanat), apply one coat Plascron Woodcote Ultra Varnish (X-44), thinned with 1:3 mineral Turpentine (XZH1) and apply two finishing coats Plascron Woodcote Ultra (X-44) under varnish to corners.

F2. Ceilings – 3mm Exotic Mosaic fibre-cement boards nailed to 38 x 38mm S4P brackerling at 400mm centres maximum with 12mm wide 100mm long battens. Plasterboard to be installed over the battens.

F3. Plasterboard – Multi-Surface Plaster (WVU1) and finish of with two coats Plascron Polvin Vails 6 ceilings (EP1). VVA paint Colour White (EP1.30). Provide 100mm thick Acroline insulation on top of ceilings.

F3. Plastered ceiling as per finishes schedule

[illegible]

G4. Tussis system – Mitec or other approved patent pre-fabricated tussis system as per supplier's schedule. 110mm centres with 20 degrees pitch. 50 x 76mm SAP panels at maximum 1200mm centres. 38 x 114mm SAP wall plate to be carboliumed and detailed to match. Tussis manufacturer to provide certificate and quantities for design and erection of tussis as well as sealed and certified fitting.

with well treated or acrolein-treated before being in position. Trusses to be secured to walls with 2.5 mm diameter galvanneal steel wire pins, built two walks minimum 6 courses. Purlins nailed to trusses must also be secured with 2.5 mm diameter galvanneal steel wire, two walks minimum around and tied around rafters and trusses, purlins, and diaphragm bracing. Seal coats (Kwik Seal (KCS), primer with one coat Plaston Wood Primer (UC2), and apply two coats Plaston Flame Doors & Trims paint, Color Seal (CS), finish with one coat Plaston Wood Primer (UC2), and apply two coats Plaston Flame Doors & Trims paint. Color Seal (CS) finish schedule.

55. Gutters - 100 x 200 mm high gutters formed of 0.25 mm galvanised steel from with Globalcoat finish (colour: cementsook Sand). All brackets, etc. to be pre-coated with Globalcoat to match colour of gutters

56. Downpipes - 100 mm Diameter downpipes formed of 0.25 mm galvanised steel from with Globalcoat finish (colour: cementsook Sand). All holdfasts, brackets, etc. to be pre-coated to match colour of downpipes

57. Gutter flashing over parapet boards at louvers - 0.8 mm galvanised steel from standard factory manufactured FTK13 large or large flange with Chemalloy metal coating. Traffic Guard

58. Gutter flashing with Chemalloy metal coating. Traffic Guard

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

high, two wall mounted side boards each 1000 x 1200mm high & two swing leaves each 1000 x 1200mm high with permanent aluminium chalk rail

H3. Greenfield 525 double door steel cupboard with standard baked enamelled finish, 760 x 610 x 1700mm high with four shelves (2 per classroom)

coated Shetlo type F-16 wall bands, plugged to walls at maximum 600mm c/c. Sand down to a smooth finish, stop with Polyceal Woodfiller, apply one coat Plascon Woodcare Ultra Varnish (X44) thinned with 1:3 mineral turpentine (AZT1) then apply two finishing coats Plascon Woodcare Clear Ultra (X44) suede varnish to shelves

11 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

AL5066-E08/ZAS aluminum fire extinguisher sign above fire hose reel with 30m hose. Supply 152 x 152 x 3mm thick Union AL5066-06/SASE05 aluminium engraved red fire hose reel sign & Union AL5066-06/SASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in hose reel sign & Union AL5066-06/SASE08 aluminium engraved red down arrow sign above fire hose reel. Water supply in

buildings to fire hose reel to be 25mm galvanised mild steel. Degrease exposed parts of pipes with Plascon Aquasolv Degreaser (GR1), remove any rust with Plascon Rust Remover (RR1), prime with Plascon Metal Primer (UC501) and apply two coats Plascon Enamel Doors & Trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E05/ZAS

[illegible]

NOTES

- [illegible]

SIGNATURE TABLE		
DISCIPLINE	SIGNATURE	DATE
CLIENT		
PLAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL OFFICER		
ROADS/STORMWATER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

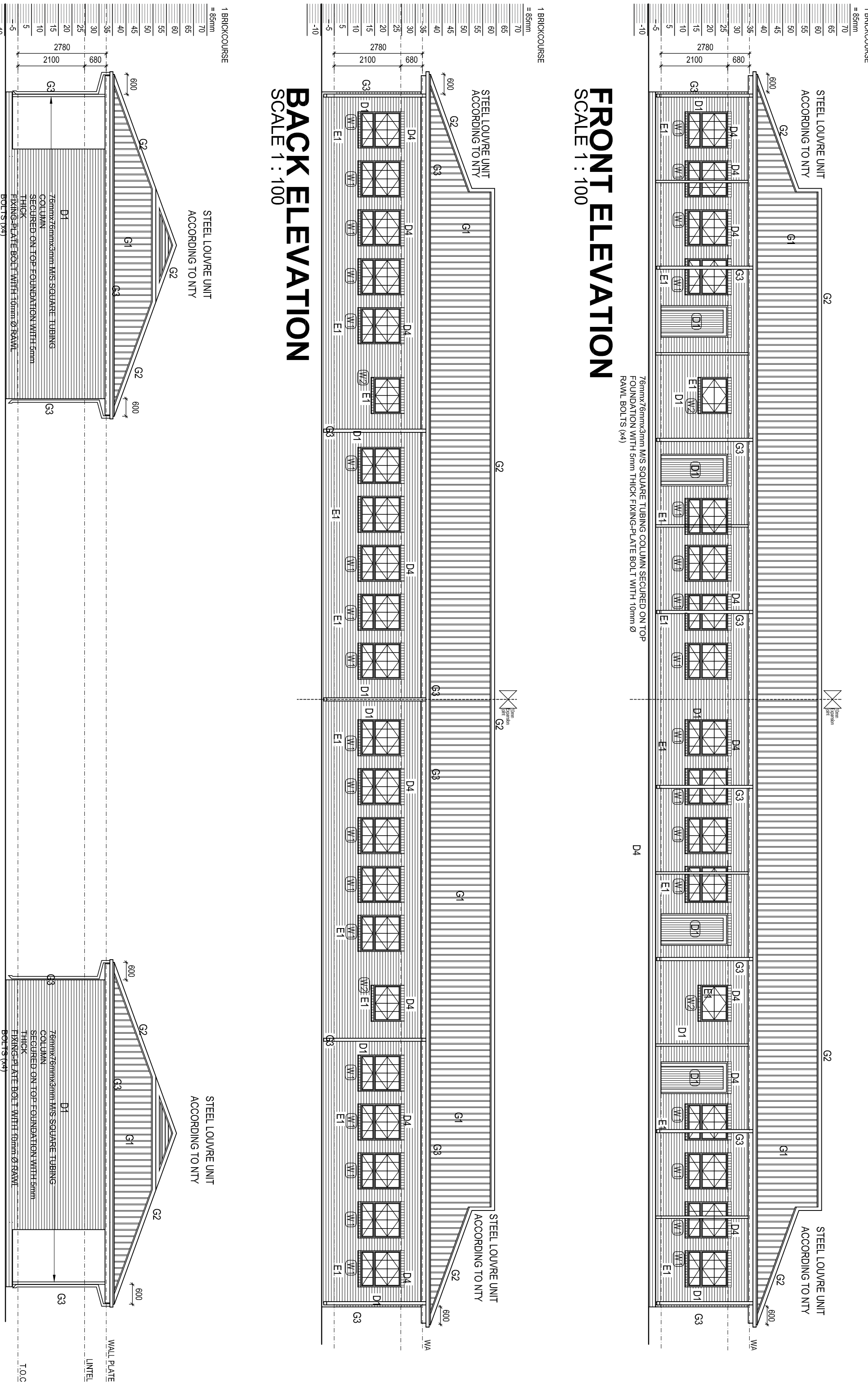
REV No	DATE :	DESCRIPTION:

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INSTITUTION NAME NUMBER	
991104204	
SERVICE	
NEW BUILDINGS & ALTERATIONS	
CONTACT / SECTION	
DOCUMENTATION & PROCUREMENT	
DISCIPLINE	
ARCHITECTURAL	
PROJECT STAGE	
3	
TOTAL RESERVATION - \$85 DIVISION	
4 CLASSROOM WITH STORES BLOCK	
DRAWING DESCRIPTION	
ELEVATIONS	
FILE NO.	ITEM NO.
DESIGN	DRAWN
SCALE	1:100
RESPONSIBLE PROFESSIONAL	CHECKED
DATE	VALUE
VALUE	SOLUTION
PR. NUMBER	
DRAWING CO-ORDINATED	

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CAD SYSTEM	AUTO CAD	FILE NAME	
SIZE	DRAWING NUMBER	REVZ	
A 1	2020 62-4CLS-103	A	



WINDOW SCHEDULE			
<p>NUMBER</p> <p>W01</p>	<p>TYPE</p> <p>AREA</p>	<p>W02</p> <p>TYPE</p> <p>AREA</p>	<p>TOC (Top of Concrete)</p>
<p>FINISH</p> <p>STANDARD BRASS FITTINGS</p> <p>1.2, 2mm lead and top rail are treated to the up vertical and horizontal section of window</p> <p>Door & 1mm glass enamel paint - colour Drye (R02-C0-5)</p>	<p>GLASS</p> <p>6.38mm Laminated clear safety glass in bottom lead section and 3.8mm laminated clear safety glass in top opening section</p>	<p>FINISH</p> <p>STANDARD BRASS FITTINGS</p> <p>1.2, 2mm lead and top rail are treated to the up vertical and horizontal section of window</p> <p>Door & 1mm glass enamel paint - colour Drye (R02-C0-2)</p>	<p>GLASS</p> <p>6.38mm Laminated clear safety glass</p>
<p>NOTES</p> <p>HEAVY STEEL SECTION</p>	<p>NOTES</p> <p>HEAVY STEEL SECTION</p>		

<p>TYPE D01</p>	<p>POSITION:</p>	<p>ALL EXTERIOR DOORS</p>	<p>TYPE D02</p>	<p>POSITION:</p>	<p>ALL INTERNAL DOORS:</p>
	<p>DOOR TYPE :</p>	<p>813mm x 2032mm Fanned, ledged, braced and battened timber door</p>		<p>DOOR TYPE :</p>	<p>813mm x 2032mm solid timber door</p>
	<p>DOOR FINISH:</p>	<p>3 x coats clear varnish</p>		<p>DOOR FINISH:</p>	<p>3 x coats clear varnish</p>
	<p>FRAME:</p>	<p>1,2mm double rebated frames suitable for 220mm wall, to accommodate 813 x 2032 door leaf</p>		<p>FRAME:</p>	<p>1,2mm double rebated frames suitable for 110mm wall, to accommodate 813 x 2032 door leaf</p>
	<p>FRAME FINISH:</p>	<p>1 X coat Zinc Chromate primer 2 x coat approved enamel paint</p>		<p>FRAME FINISH:</p>	<p>1 X coat Zinc Chromate primer 2 x coat approved enamel paint</p>
<p>DOOR:</p>	<p>Standard approved 'meranti' ledged and braced door</p>		<p>DOOR:</p>	<p>2032x813x40mm solid flush panel door with hardwood both side and 2 concealed edges</p>	
<p>FANLIGHT:</p>	<p>NONE</p>		<p>FANLIGHT:</p>	<p>NONE</p>	
<p>IRONMONGERY:</p>	<p>4 Lever security lockset and satin - chromed handles all approved</p>		<p>IRONMONGERY:</p>	<p>4 Lever security lockset and satin - chromed handles all approved</p>	

CONSTRUCTION NOTES

Foundations

Foundations

A1. Concrete founded on - s - concrete mix type and with steel reinforcement according to structural engineers' 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 oil poison of the Prothon 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. *to be noted within 24 hours of completion. Contractors to provide this work instruction.*

A2. Backfilling and filling under floors: In general, approved filling compacted to at least 93% MDD, ASTM density, in layers not more than 150 mm (6 in.) thick, is required. The filling must be placed in layers not more than 150 mm (6 in.) thick, and must be of maximum 150-mm (6-in.) layer to engineer's drawings for detail in case of poor soil conditions. Minimum of 170-mm filling to be provided above natural or compacted ground level under floors. All filling to be approved by engineer (improved filling to be minimum 65 or 67 material as per engineer's drawings). Compaction tests to be provided at a rate of one test per 220 m² (filling area under floors for each size of 150 mm compacted filling). Filling under floors to be treated with an jobson of the 120 mm SCS or other approved type applied at a rate of not less than 5 l/area of solution per m² by a firm of specialists in accordance with SANS specification 11 and SANS Code of Practice 0174. Concrete to be casted within 24 hours of application.

Contractor to provide live year guarantee

B1 Surface dead - concrete mix as described on structural engineer's drawings but minimum 88mm thick on SANS Specification 952 Type C approved US Green 250 micron waterproofing membrane with laps sealed with pressure sensitive tape. Surface dead cast in alternative sections of maximum 20cm³ with saw cut joints filled with joints filled with polyisobutyl sealant. All saw cut joints to be done within 24 hours after casting of concrete. Provide 10mm thick lithium 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 seal on walkways - concrete curb as described on structural engineer's drawings but minimum 50mm thick on SVA.

B3. External door openings external surface boards must be level with finished threshold finish. Finish off edges of screed smooth with edging tool.

B4. Apron - 1200mm wide /150NPa 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.

B5. Screened door openings external surface boards must be level with finished threshold finish. Finish off edges of screed smooth with edging tool.

Stratifications
 D1: 15 x 45 mm Metal-shaping plugged in walls at 40 cm deep, with 10 mm narrow quadrat head placed on. Sand down to a 10 mm depth.
 D2: 15 x 45 mm Metal-shaping plugged in walls at 10 cm deep, with 10 mm narrow quadrat head placed on. Sand down to a 10 mm depth.
 Plaston Woodcare Ultra Varnish (X44), thinned with 1:3 mineral turpentine (AZ11) and apply two finishing coats Plaston Woodcare Ultra Varnish (X44) sanded straight to stratifications.
Walls and structure
 D1: External walls - Corobik face bricks in stretcher bond with 10 mm wide x 6 mm deep square recessed joints.
 D2: Brickwork - Brickwork to 0.15 and 0.30 m foundation walls - every 2nd course. Superstructure walls - every 6th course. Over openings formed in brickwork as per table below.

Sunproof (Amlite) + PMW22 suede against timber with 1:3 mineral Turpentine (AZH1) and apply two finishing coats Plaston Woodcare Sunproof (Amber - PMW22) suede against varnish

D4. Lintel – Corroble brick-on-edge type brick lintel over all window, door and clear openings with 10 x 6mm square recessed joints

D5. Plank – SANS Specification 952 Type B approved 37.5 micron black PVC in walls at floor level and under window sills

D6. Internal wall – approved stockbrick walls in stretcher bond above to receive one coat smooth, 1:3 cement plaster finished with 1:1 sand/cement render

D7. Internal wall – approved stockbrick walls in stretcher bond above to receive one coat smooth, 1:3 cement plaster finished with 1:1 sand/cement render

D8. External wall – Face Brick Class 2 or better (SABS 201-3) as Practical Axiom Walls (ETL) PVA joint. Colour to be selected by Architect

D9. External wall – Face Brick Class 2 or better (SABS 201-3) as Practical Axiom Walls (ETL) PVA joint. Colour to be selected by Architect

D10. Internal wall – French chisel finish up to 500mm with approved stockbrick walls in stretcher bond above to receive one coat smooth, 1:3 cement plaster finished off with one coat Plasterboard Primer (U256) and two coats Plason Polynix Walls & Ceilings (EPD) PVA joint. Colour as per finishes schedule.

D11. All exposed expansion joints in walls and floors to be filled in with Uroclonem 205 polysulfide joint sealant after surfaces have been primed with Uroclonem 614 primer

D3. Expansion joints in walls and ceilings to be covered with 2 x 50mm Migra KF-250/30 aluminium cover strips

D4. Window sills

E1. Internal window sills - 15 x 150mm nucel-cement window sills, bedded and set flat in 1:4 cement mortar. Prime with one coat Plaston Multi-surface Primer (WUP1) and apply two coats Plaston Polkin Walls & Ceilings (EP1) PVA paint. Colour as per finishes schedule

E2. External window sills - Midcemat Fynbos Gaei face brick-on-edge sloping sill to match walls with 10 x 60mm square recessed joints

F1. Ceilings and cornices - 9 x 76mm Mercat cornice nailed to wall at 400mm centres maximum. Sand down to a smooth finish. Undercoat with Poly Urethane stain with Plaston Woodcare Stain (WV-nucel) (Polish optional). Apply one coat Plaston Woodcare Ultra Varnish (X44) thinned with 1:3 mixture Turpentine (AZH) and apply two finishing coats Plaston Woodcare Ultra (X44) sanded against to cornice

F2. Ceilings - 9mm Everite Nucel fibre-cement boards nailed at 38 x 38mm SAP bracketing at 400mm centres maximum with galvanised cold nails. Provide Hoppals galvanised joining strips. Joining strips to be pre-painted. Prime ceilings with one coat Plaston Multi-surface Primer (WUP1) and finish off with two coats Plaston Polkin Walls & Ceilings (EP1) PVA paint. Colour White (EP130). Provide 100mm thick Aeroflex insulation on top of ceilings

W3. Plastered ceiling as per finishes schedule

Roof and fascias – 0.58mm Brownbult Kilo-pak roof sheeting with Globalcoat finish (colour Traffic Green) on 50 x 76mm SAP joists at maximum 1200mm centres on patent and approved pre-fabricated truss system. Roof sheeting to be done by ceiling board and fitted in situ in opening. Provide 18 x 50mm membrane around '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.

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 albalcoat finish (colour Traffic Green)

G3. Fascia boards - 10 x 300mm Everite Nulec-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

44 Truss system - MITTEK or other approved patent timber pre-fabricated truss system at maximum 1100mm centres with 20 countersunk brass screws. Prime (asclad) and barge boards with one coat Plascon Multi-Surface Primer (WUP1) and finish off with two coats Plascon Polvin Walls & Ceilings (EP/L) PVA paint. Colour as per finishes schedule.

degrees pitch, 50 x 76mm SAP purflits 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 carbolinum 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 galvanised steel wire ties.

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

G5. Gutters - 100 x 100mm High gutters formed of 0.55mm galvanised sheet iron with Globalcoat finish (colour Gernsbok apply two coats Plascon Enamel Doors & Trims paint. Colour as per finishes schedule. Sanded All brackets etc. to be pre-coated with Globalcoat to match colour of gutters.

G6. Downpipes - 100mm Diameter downpipes formed of 0.58mm galvanized steel iron with Globalcoat finish (colour Gemstop Sand). All holderbrats, brackets, etc. to be pre-coated to match colour of downpipes

G7. Gable 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)

Over the course of the project, the researchers found that the use of the counter flashing with Globalcoat finish (Colour Traffic Green) was the most effective in reducing the risk of water infiltration.

H1. Vitrex Model 2400 (code 2404) enamelled 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

H3. Greenfield G25 double door steel cupboard with standard baked enameled finish, 760 x 610 x 1700mm high with four

H4. Five rows of 19mm Thick laminated SA Pine shelving, 350mm wide, evenly spaced & fixed from underside to 305mm wide shelves (2 per classroom)

coated Shetco 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

19 kg DCP fire extinguisher fitted to 400 x 200 x 22mm thick meranti backplate with chamfered edges. Sand down to a fine finish. Finish with 2 coats of Plascon Woodcare Clear Ultra (x44) suede varnish to shelves and 1 coat of Plascon Woodcare Clear Ultra (x44) suede varnish to the backplate.

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

2 Safe fire hose reel with 30m hose Supply 152 x 152 x 3mm thick Union AL5066-06ASE05 aluminium engraved red fire sign above fire extinguisher

hose reel sign & Union A15066-06A5E08 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

coats Plascan Enamel Doors & trims (G-Range) paint - colour Signal Red (G7). Provide 150 x 150mm Union AL5066-E052AS aluminium fin sign & Union AL5066-E082AS aluminium fin arrow sign above fire hose reel.

[illegible]

SIGNATURE TABLE		
DISCIPLINE	SIGNATURE	DATE
CLERK		
MAN EXAMINER		
FIRE CONTROL		
ENVIRONMENTAL OFFICER		
POLICE STORWARTER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

REV/NO	DATE :	DESCRIPTION :


LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Department of
Public Works

INSTITUTION

DAVID SCARA (MODIMOLE RDP SETTLEMENT) PRIMARY


NEW BUILDINGS & ALTERATIONS

CONTRACT - SECTION

ARCHITECTURAL	4
WORK DESCRIPTION - SUB DIVISION	
4 CUBICLE WATERBORNE ABLUTION BLOCK	

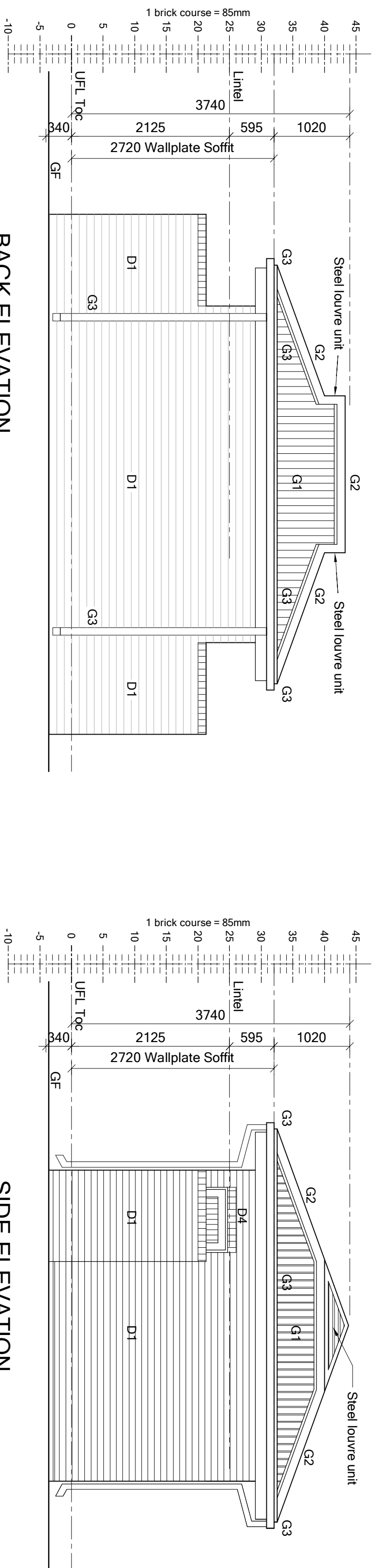
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SECTION AND ELEVATION			
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RESPONSIBLE PROFESSIONAL			
DRAWING CO-ORDINATED			

CONSULTANT :

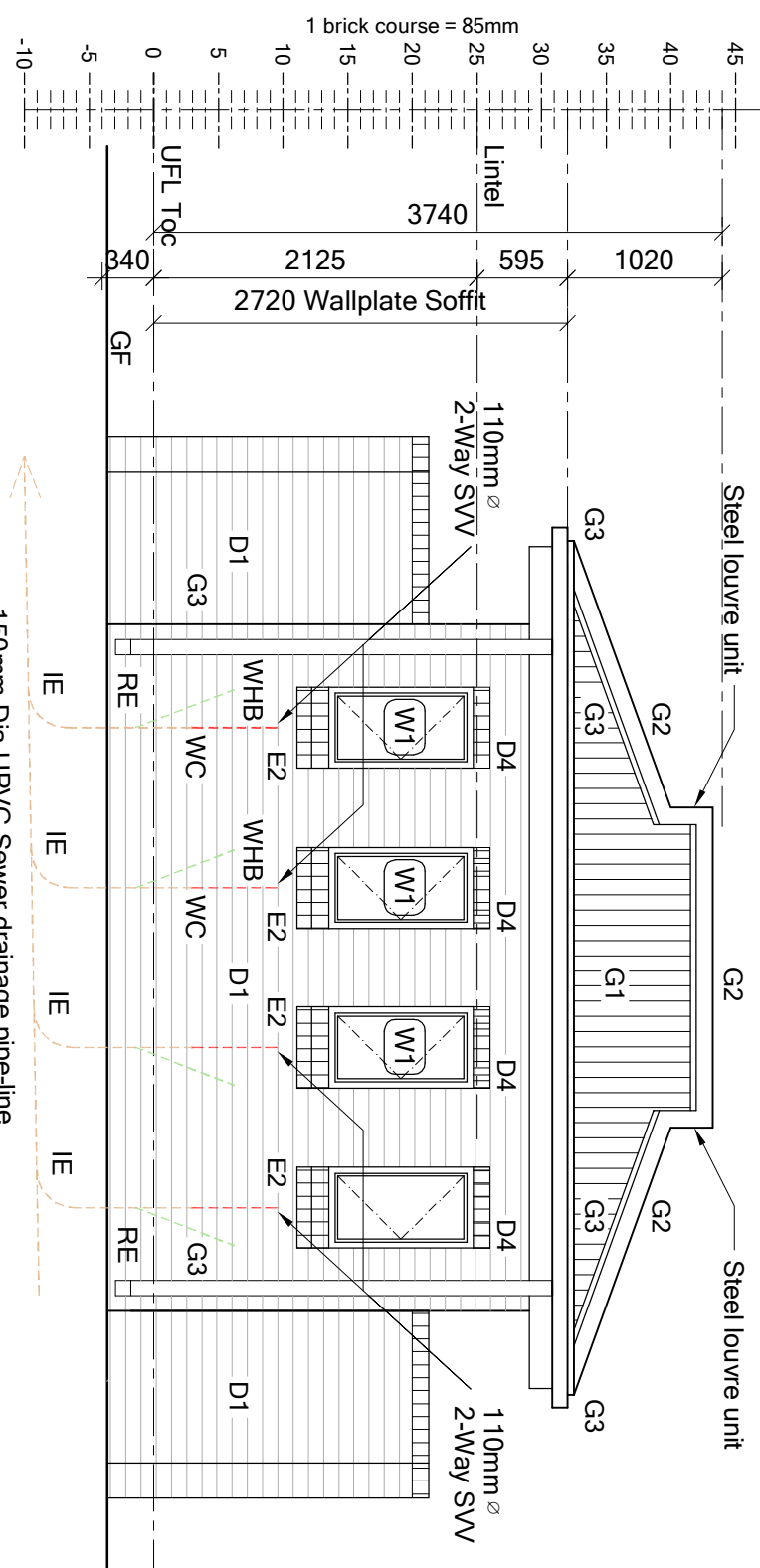
 **ruben reddy architects**

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Tel: +27 18 258 4555, 258 4556
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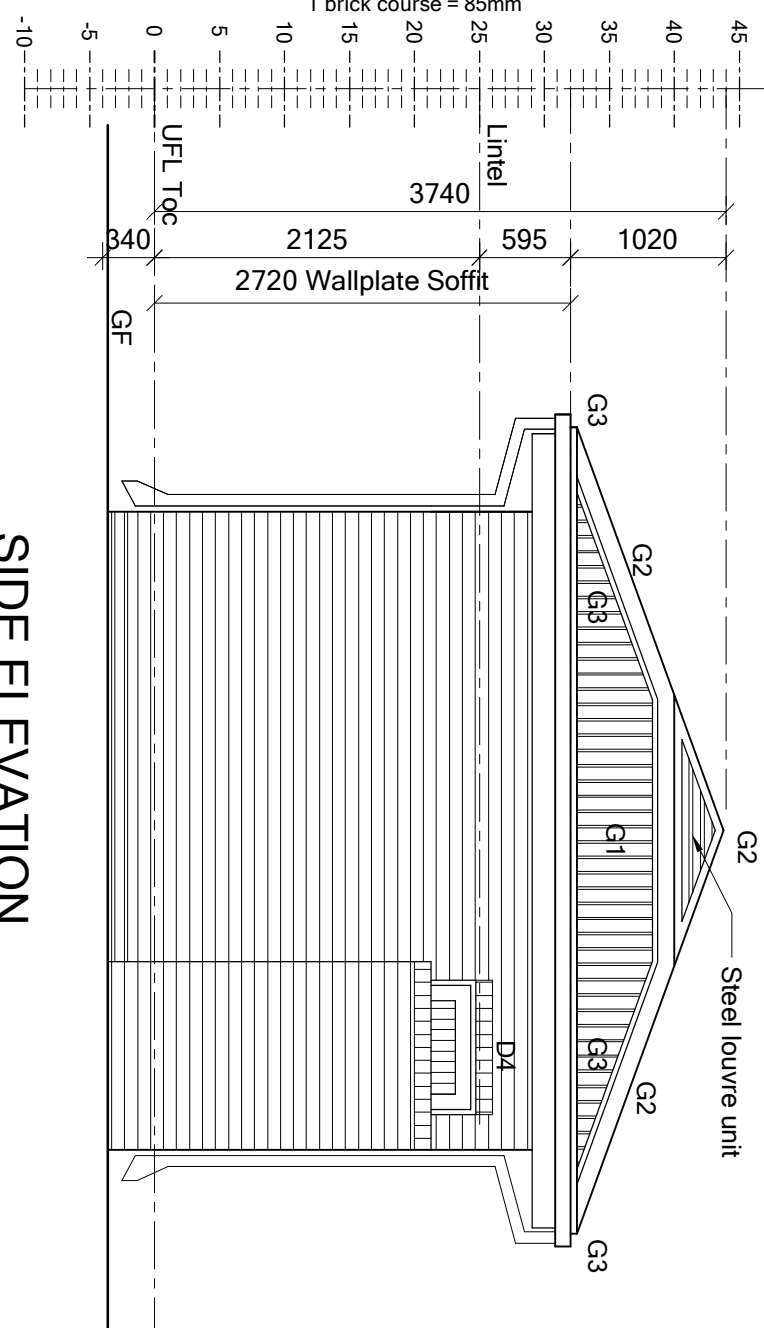
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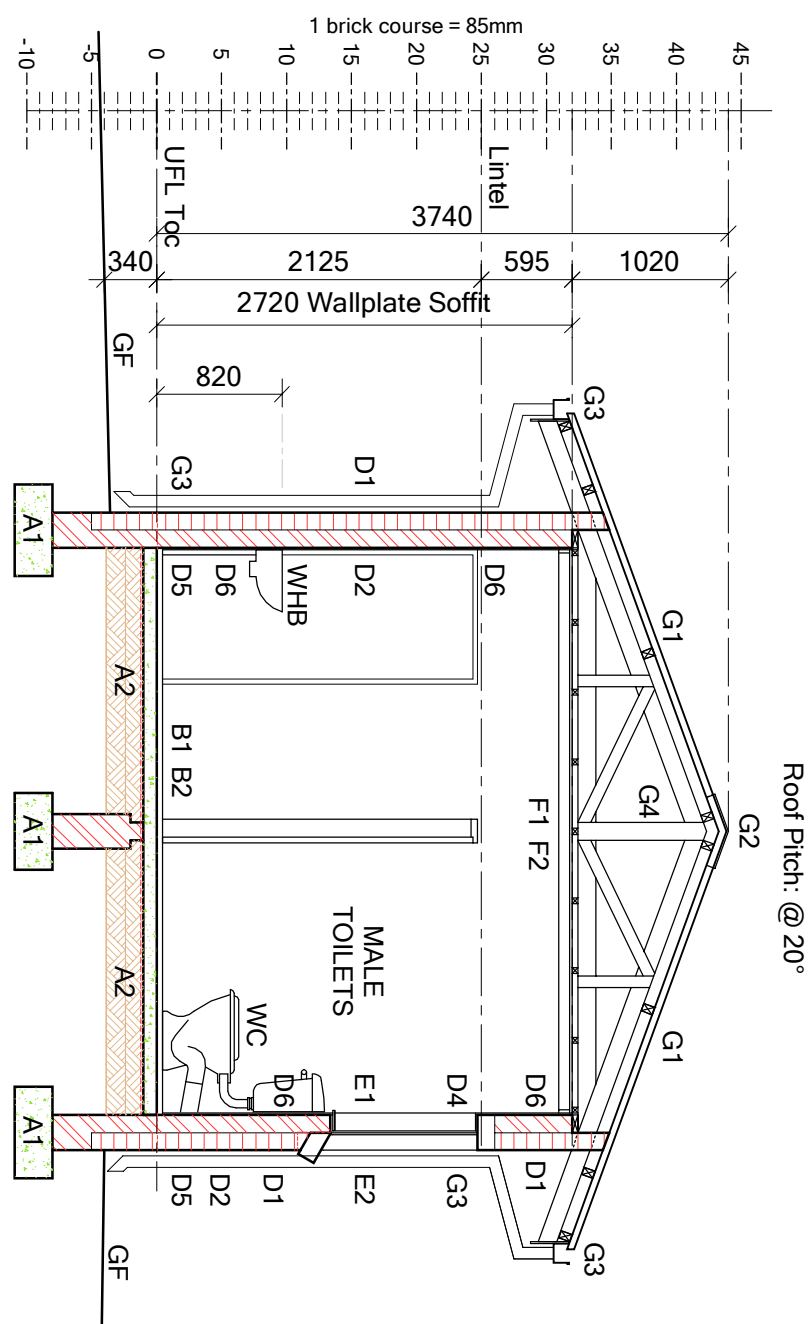
BACK ELEVATION
Scale 1:50



FRONT ELEVATION
Scale 1:50



SIDE ELEVATION
Scale 1:50



SECTION A-A
Scale 1:50

CONSTRUCTION NOTES

[illegible][illegible]

Walls and joints – Concoat face bricks in stretcher bond with 10mm wide x 6mm deep square recessed joints

[illegible]

D5. Internal walls - approved cast in situ concrete walls in stretcher bond above to receive one coat Rascon Plaster Primer (UC56) and two coats Rascon Plaster Mastic & Colours (EP) PVA paint. Colour chosen with ECI 141 or Farrow Chameleon (P5:22:3) as per Principal Agent.

D7. Internal walls - face brick piling up to 500mm with approved stock bricks in stretcher bond above to receive one coat spooft - 15 cement plaster finished off with one coat Rascon Plaster (UC56) and two coats Rascon Plaster Mastic & Colours (EP) PVA paint. Colour as per finishes schedule.

D8. Exposed expansion joints in walls and floors to be filled in with Uconorm 2500 (15% solidifier) per section after surfaces have been primed with Uconorm 614 primer.

Window sills
 E1. Thermal window sills - 15 x 150mm mulec-cement window sills, bedded and set in 1:4 cement mortar. Prime with one coat Plascon Multi-surface Primer (MUP) and apply two coats Plascon Pain Wals & Ceilings (EP), PVA paint. Colour as per finishes schedule
 E2. External window sills - Midewilt Fynbos Gelface breeze brick-on-edge sloping sill to match walls with 10 x 10mm square recessed joints

FD-1 Internal orange (19 × 10 mm) clear plastic, orange related to wets at 400 nm centres maximum. Sand down to a smooth finish. Stop with P3000/Woodgilder, spray with P3000/Woodgilder (colour neutral), apply to wets at 400 nm centres maximum. Woodgilder Ultra (M4) sealant, to connect.

FD-2 Orange, 10 mm. Evere white (the clear centres related to 38 × 38 mm SD) Parading at 400 nm centres maximum with turquoise cloud (slats). Provide H-profile galvanised steel slats. Joining slats to be one piece. Prime coatings with white coat P3000/Slat/Surface Primer (WDP1) and finish off with two coats P3000/Plain/Vials & Cellings (EP 1000). Coat white (EP-10). Provide 100 mm thick insulation on top of cellings.

[illegible]

56. Gullies - 100 x 100 mm High-lites formed of 0.50mm galvanized steel from Galvalume finish (colour Gensink Steel). All paravents, etc. to be pre-coated with Galvalume to match colour of gullies

57. Downpipes - 100mm Diameter downpipes formed of 0.50mm galvanized steel from Galvalume finish (colour Gensink Steel). All downpipes, etc. to be pre-coated to match colour of downpipes

58. Eave flashing over eave boards at louvers - 0.8mm galvanized steel not standard factory manufactured Fx3.3 eave or gable flashing with Galvalume finish (colour Traffic Yellow)

59. Eave flashing of louvers - 0.8mm aluminium plate from standard factory, matt finished R8.8 exposed finish and R7.2 colour finish with Galvalume finish (Colour Traffic Yellow)

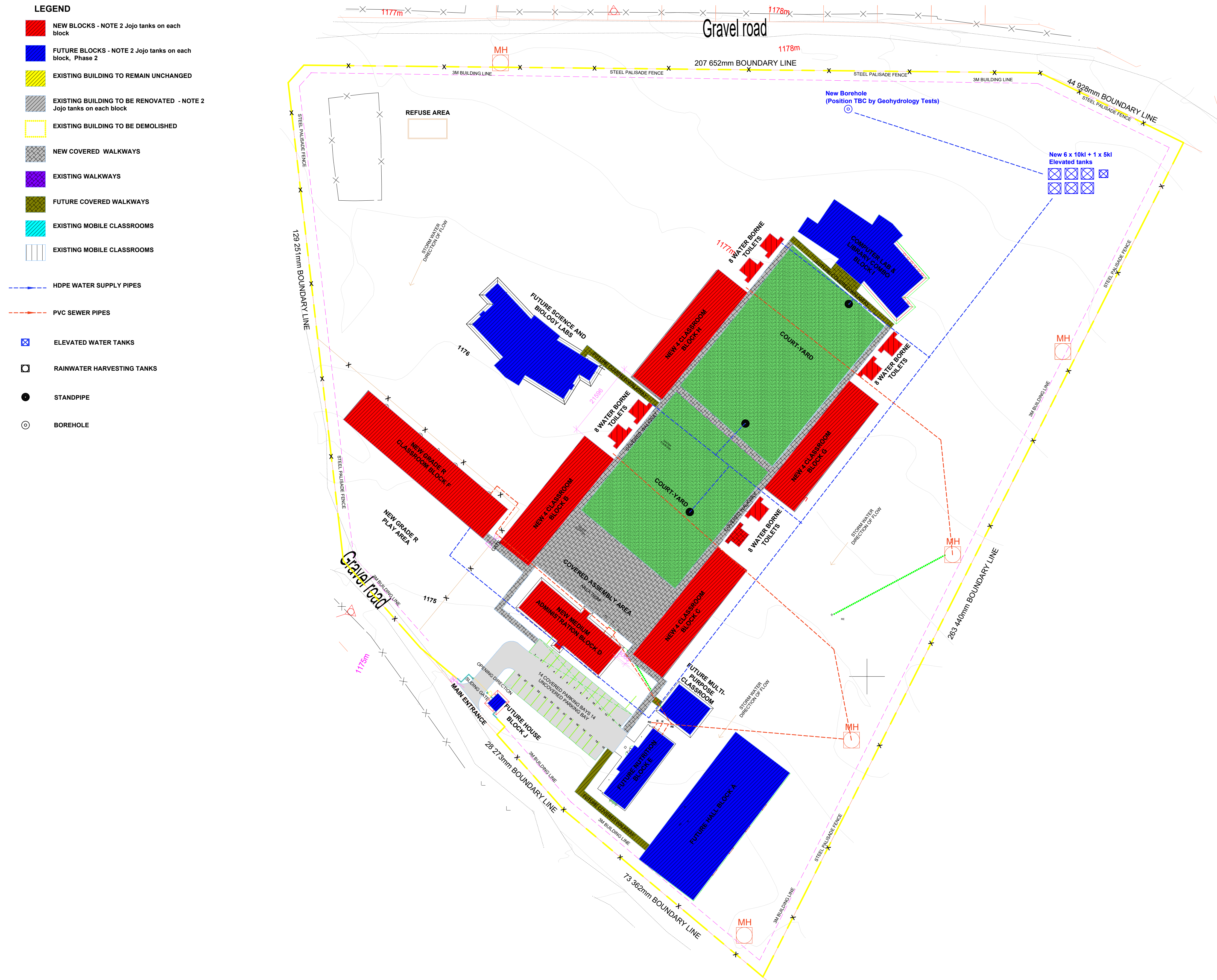
Fittings
HT: Wera Mola 2400 (code 2404) enamelled green bidding type writing board with wall mounted centre board 2000 x 1200mm high; two wall mounted side boards each 1000 x 1200mm high & two swing leashes each 1000 x 1200mm high with permanent aluminium track rail
Green Sien 2200 (code 2317) light grey wall gey wall mounted pinning board 2000 x 600 mm high (2 per classroom)
Green Sien 2200 (code 2318) light grey wall mounted drawing board 2000 x 600 mm high (2 per classroom)
Green Sien 2200 double top stud unit with standard board sized 2000 x 1200 x 10 mm high with four shelves (2 per classroom)
Green Sien 2200 double top stud unit with standard board sized 2000 x 1200 x 10 mm high with four shelves (2 per classroom)

to be fixed to 25mm wide, 2 x 13mm long double sided epoxy powder coated Stenofo type T-FG wall bands. Plugged to walls at maximum 600mm c/c. Sand down to a smooth finish step with Polygel Woolfiller, apply one coat Rascon Woodcote Ultra Varnish (X44) thinned with 1:3 mineral Turpentine (A2H+) then apply two finishing coats Rascon Woodcote Clear Ultra (X44) sanded varnish to staves

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REPUBLIC OF SOUTH AFRICA
**LIMPOPO DEPARTMENT OF PUBLIC WORKS &
INFRASTRUCTURE**
DAVID SCARA KUTUMELA PRIMARY SCHOOL
LDPWRI-B/20102

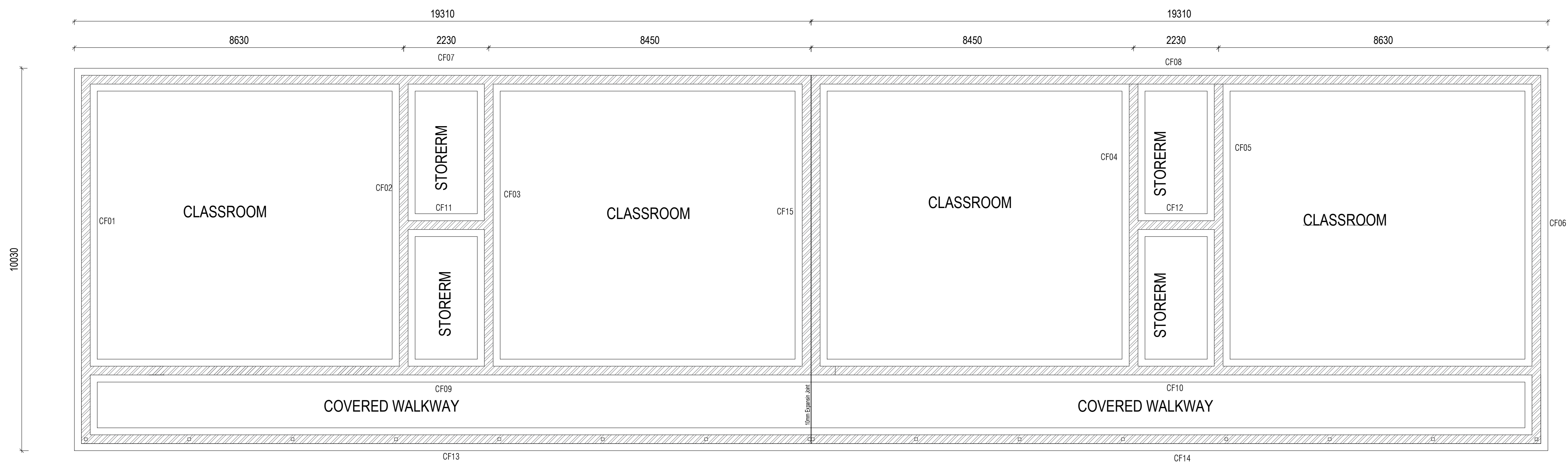
CIVIL WORKS DRAWINGS



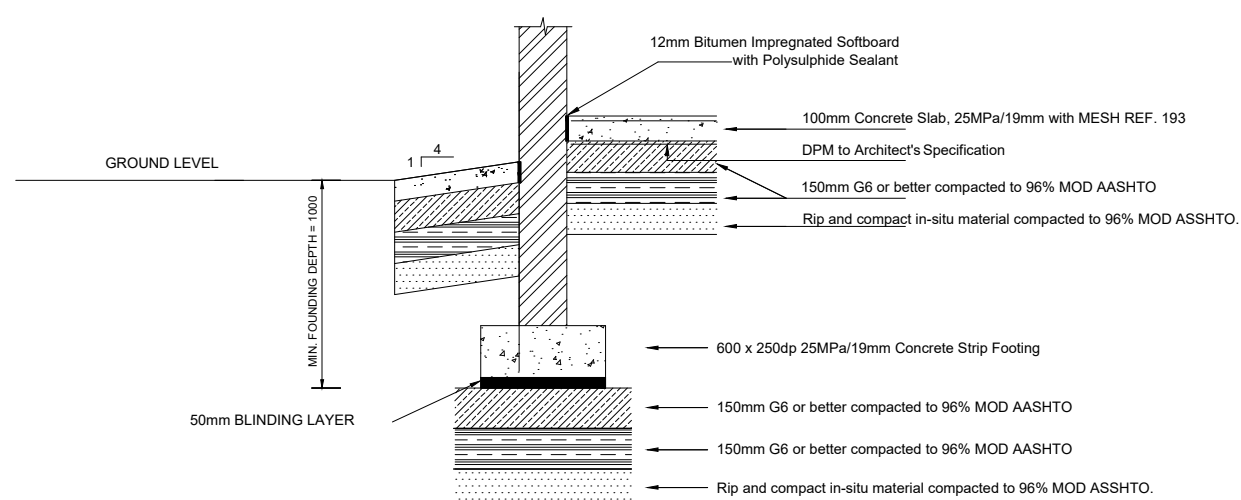
NO.	Description	Unit	QUANTITY
01	New Borehole	No.	1
02	New 10kl PVC Tank on 4.5m Elevated Steel Stand	No.	6
03	New 5kl PVC Tank on 4.5m Elevated Steel Stand	No.	1
04	Ø75mm HDPE Pipe	m	100
05	Ø50mm HDPE Pipe	m	380
06	Ø25mm HDPE Pipe	m	40
07	New Standpipes	No.	4

NO.	Description	Unit	QUANTITY
01	8 x 4 seat Waterborne	No.	1
02	Ø110mm PVC Pipe to Septic Tank	m	358
03			
04			
05			
06			
07			

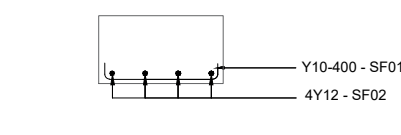
					CLIENT	MUTEO CONSULTING	39 GROBLER STREET POLOKWANE 0699 P.O. BOX 6196 POLOKWANE NORTH 0750 TEL : (015) 291 4065 FAX : (015) 291 4043 website: www.muteo.co.za	PROJECT APPR. DESIGNED CHECKED DRAWN PROJECT MNG. APPROVED CLIENT	DATE 02 July 2021 02 July 2021 02 July 2021 	BY V.M E.M V.M 	SIGNATURE	SCALE DO NOT SCALE IF IN DOUBT ASK. PROJECT No. LDPWRI-PROF/16003B DRG SIZE A1	TITLE RENOVATION AND ADDITIONS TO STORM DAMAGED SCHOOL - CLUSTER B DAVID SCARA PRIMARY SCHOOL WATER AND SEWER LAYOUT DRAWING No. LDPWRI SCHOOLS/B/D.SCARA/01
REV 0	DATE	CHK	APP		<div><p>LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE</p></div> <div><p>MUTEO CONSULTING</p></div>								
DESCRIPTION													



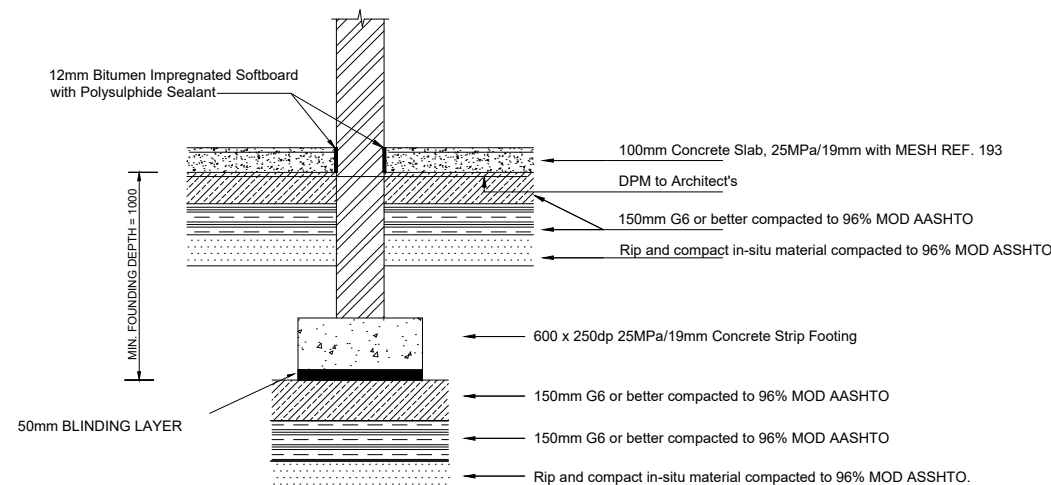
FOUNDATION LAYOUT – PLAN



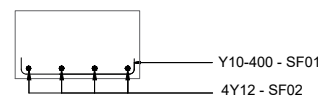
SECTION THROUGH
STRIP FOUNDATION - 600 x 250 Dp Base
230 WALLS EXTERNAL WALLS



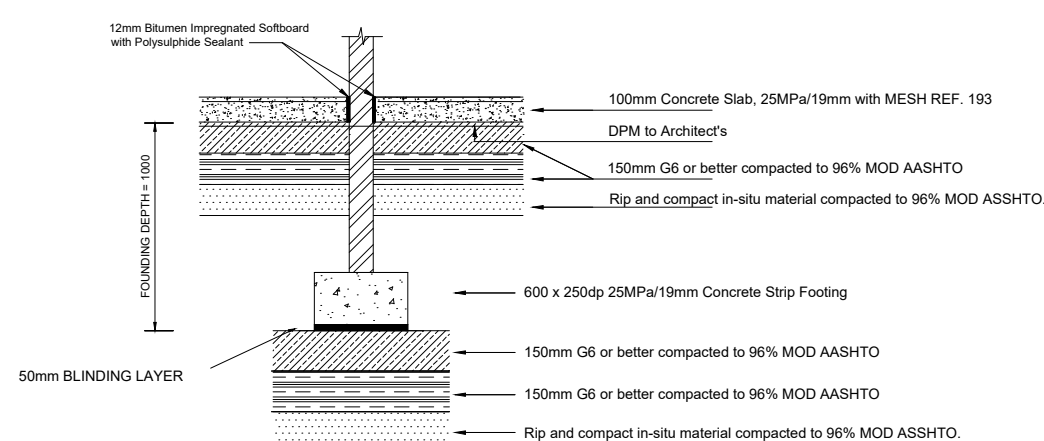
BASE REINFORCEMENT
See Bending Schedule for Details



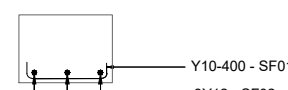
SECTION THROUGH
STRIP FOUNDATION - 600 x 250 Dp Base
230 WALLS INTERNAL WALLS



BASE REINFORCEMENT
See Bending Schedule for Details



TYPICAL SECTION THROUGH
STRIP FOUNDATION - 450 x 250 Deep Base
115 INTERNAL WALLS



BASE REINFORCEMENT
See Bending Schedule for Details

1. GENERAL NOTES

- 1.1. All work to be done in accordance with the National Building Regulations and the relevant SABS Specifications.
- 1.2. All drawings to be read in conjunction with Architect's drawings and any discrepancies must be reported to the Engineer prior to any setting out of work.
- 1.3. No structural alterations are to be made without amended drawings.
- 1.4. All drawings must be checked by the Contractor and any discrepancies should be reported to the Engineer before any work commences
- 1.5. All waterproofing and drainage to be to Architect's details and instructions.
- 1.6. Contractor to ensure that stability of banks and excavations are continuously maintained throughout the construction period

2. R.C. CONSTRUCTION

- 2.1. No concrete is to be poured before the Engineer has inspected and approved the fixing of the reinforcement. 48 hours notice is required.
- 2.2. Breaks in concrete and construction joints are to be made only with Engineer's approval.
- 2.3. Shuttering and propping may be struck only after the lapse of the following times (in days):
- | | |
|--|----|
| Beam sides, walls and unloaded columns | 2 |
| Slab soffits without removal of slab props | 4 |
| Beam soffits without removal of beam props | 7 |
| Props unloaded slabs | 10 |
| Props unloaded beams | 14 |
- 2.4. Minimum concrete cover to reinforcement (in mm)
- | | | | |
|--------------|----|--------------------------------|----|
| piles | 50 | beams | 30 |
| pile caps | 50 | slabs | 20 |
| ground beams | 50 | retaining walls (earth face) | 30 |
| columns | 30 | retaining walls (exposed face) | 30 |

- 2.5. Concrete cube strength at 28 days in (MPa)
- | | | | |
|-----------------|----|-------|----|
| blinding | 15 | beams | 25 |
| Mortar(Class A) | 15 | slabs | 25 |
| columns | 30 | walls | 25 |
- 2.6. Concrete cover to reinforcing to be maintained by the use of either nylon spacers or precast concrete blocks with binding wires cast in.
- 2.7. All floor levels, unless otherwise indicated , are structural slab levels.

3. FOUNDING

- 3.1. Foundations are subject to alterations as excavations proceed.
- 3.2. No foundations are to be cast or reinforcement fixed in bases until excavations have been approved by an Engineer.
- 3.3. All backfill material under foundations and floors to be as follows:
- G6 Material or better
 - PI < 6
 - Compacted to 96% MOD AASHTO in layers of 150mm
 - Non-cohesive and free draining

4. ADDITIONAL NOTES

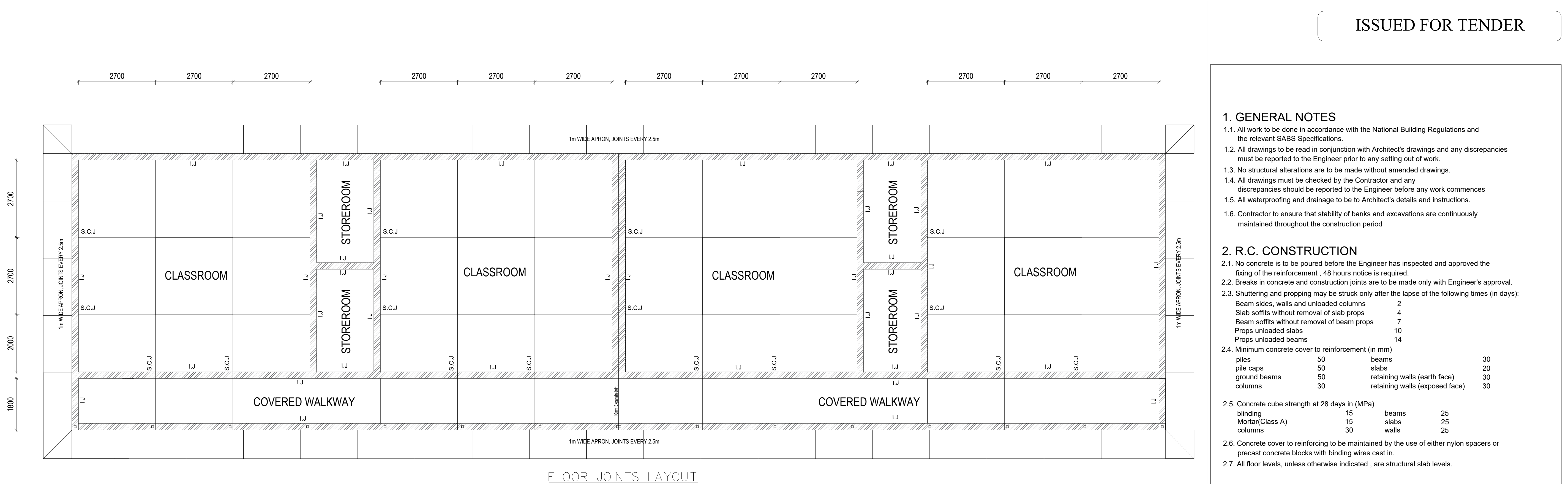
- 4.1. All exposed concrete slabs and beams bearing on brickwork to have a slip joint made up of 2 sheets of masonite with smooth faces abutting each other at top of brick-concrete interface. Joint to extend through plaster.
- 4.2. Special attention to be given to curing of concrete. Exact details to be discussed with Engineer on site prior to pouring of any concrete.
- 4.3. Two lintels plus five courses of brickwork to be built over all openings
- reinforced every course with brickforce.
- 4.4. All brickwork to have a minimum compressive strength of 15MPa.
- 4.5. A construction joint sealed with suitable flexible sealant is to be formed at all junctions between new brickwork and existing brickwork.
- 4.6. No brickwork is to be built onto suspended slabs or beams until slabs/beams have attained their full strength and have been depropped
- 4.7. All deviations from architect's drawing to be confirmed by architect prior to construction.
- 4.8. All work to be carried out in accordance with the National Building Regulations, Environmental and Occupational Health and Safety Act, (latest revision) and the Construction Regulations.
- 4.9. The main contractor is to ensure that a competent person, approved by the South African Qualification Authority supervises and approves all aspects of the requirements of the Occupational Health and Safety Act, latest revision.
- 4.10. All temporary works to be designed, detailed, supervised and certified by a competent person or professional engineer as defined in the OHS Act.
- 4.11. The works will be inspected from time to time by the consulting engineer to ascertain that the contractor is carrying out the work in general conformity with the engineering drawings and documents. Such inspections are not carried out for the benefit of the contractor, and do not relieve him of the responsibility for the proper construction of the works in accordance with the engineering drawings, documents & good building practice.

5. COMPLETION CERTIFICATE

- 5.1. No completion certificate shall be issued if all material and compaction test results are not submitted to the Engineer

[illegible]

ISSUED FOR TENDER



1. GENERAL NOTES

1. All work to be done in accordance with the National Building Regulations and the relevant SABS Specifications.
2. All drawings to be read in conjunction with Architect's drawings and any discrepancies must be reported to the Engineer prior to any setting out of work.
3. No structural alterations are to be made without amended drawings.
4. All drawings must be checked by the Contractor and any discrepancies should be reported to the Engineer before any work commences
5. All waterproofing and drainage to be to Architect's details and instructions.
6. Contractor to ensure that stability of banks and excavations are continuously maintained throughout the construction period

2. R.C. CONSTRUCTION

- 2.1. No concrete is to be poured before the Engineer has inspected and approved the fixing of the reinforcement , 48 hours notice is required.
- 2.2. Breaks in concrete and construction joints are to be made only with Engineer's approval.
- 2.3. Shuttering and propping may be struck only after the lapse of the following times (in days):

Beam sides, walls and unloaded columns	2
Slab soffits without removal of slab props	4
Beam soffits without removal of beam props	7
Props unloaded slabs	10
Props unloaded beams	14

- | | | | |
|--|----|--------------------------------|----|
| 2.4. Minimum concrete cover to reinforcement (in mm) | | | |
| piles | 50 | beams | 30 |
| pile caps | 50 | slabs | 20 |
| ground beams | 50 | retaining walls (earth face) | 30 |
| columns | 30 | retaining walls (exposed face) | 30 |

- | | | | |
|---|----|-------|----|
| 2.5. Concrete cube strength at 28 days in (MPa) | | | |
| blinding | 15 | beams | 25 |
| Mortar(Class A) | 15 | slabs | 25 |
| columns | 30 | walls | 25 |

- 2.6. Concrete cover to reinforcing to be maintained by the use of either nylon spacers or precast concrete blocks with binding wires cast in.

- 2.7. All floor levels, unless otherwise indicated , are structural slab levels.

- ### 3. FOUNDING

- 3.1. Foundations are subject to alterations as excavations proceed.
- 3.2. No foundations are to be cast or reinforcement fixed in bases until excavations have been approved by an Engineer.
- 3.3. All backfill material under foundations and floors to be as follows:
 - G6 Material or better
 - $P_i < 6$
 - Compacted to 96% MOD AASHTO in layers of 150mm
 - Non-cohesive and free draining

4. ADDITIONAL NOTES

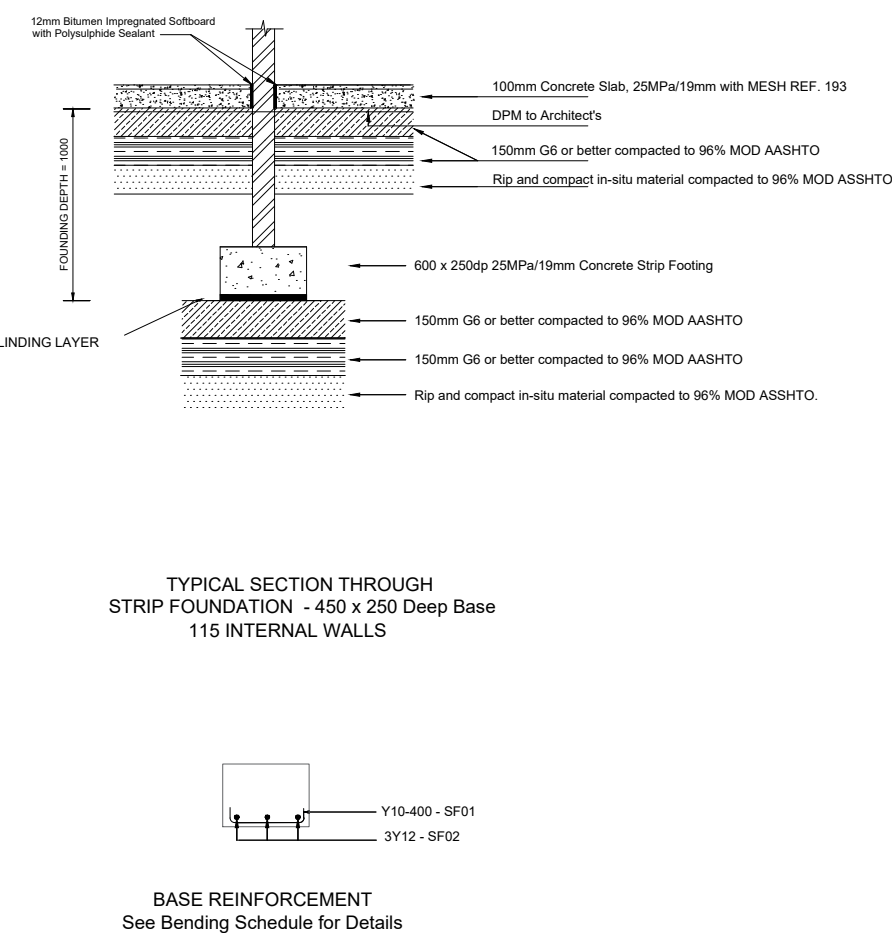
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- 4.2. Special attention to be given to curing of concrete. Exact details to be discussed with Engineer on site prior to pouring of any concrete.
- 4.3. Two lintels plus five courses of brickwork to be built over all openings - reinforced every course with brickforce.
- 4.4. All brickwork to have a minimum compressive strength of 15MPa.
- 4.5. A construction joint sealed with suitable flexible sealant is to be formed at all junctions between new brickwork and existing brickwork.
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- 4.8. All work to be carried out in accordance with the National Building Regulations, Environmental and Occupational Health and Safety Act, (latest revision) and the Construction Regulations.
- 4.9. The main contractor is to ensure that a competent person, approved by the South African Qualification Authority supervises and approves all aspects of the requirements of the Occupational Health and Safety Act, latest revision.
- 4.10. All temporary works to be designed, detailed, supervised and certified by a competent person or professional engineer as defined in the OHS ACT.
- 4.11. The works will be inspected from time to time by the consulting engineer to ascertain that the contractor is carrying out the work in general conformity with the engineering drawings and documents. Such inspections are not carried out for the benefit of the contractor, and do not relieve him of the responsibility for the proper construction of the works in accordance with the engineering drawings, documents & good building practice.

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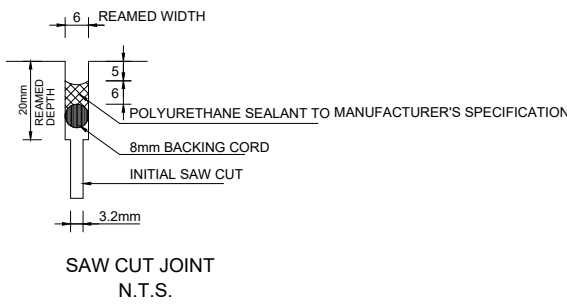
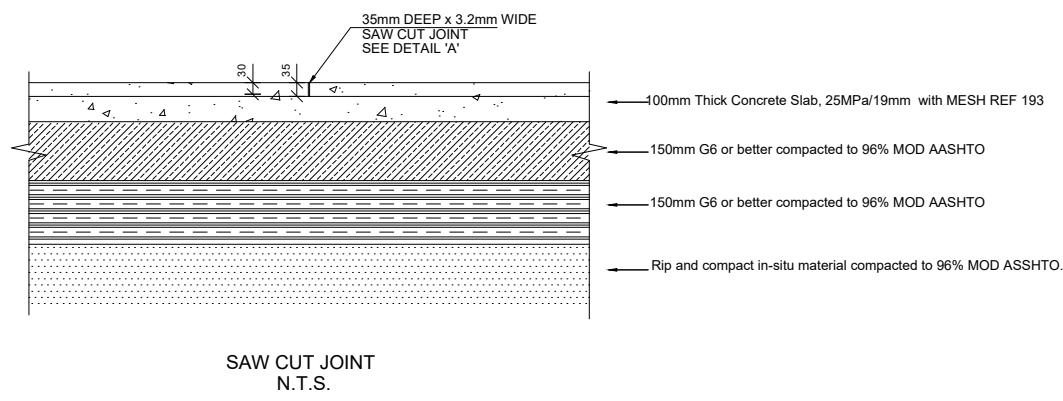
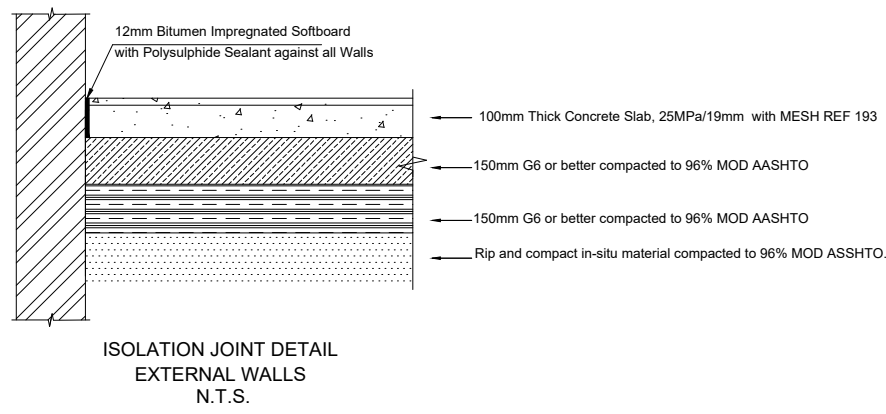
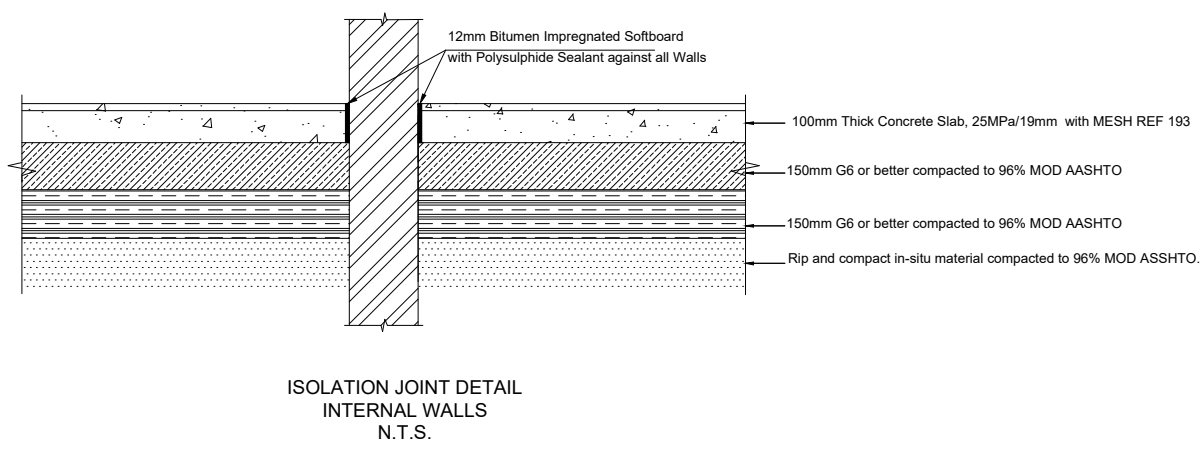
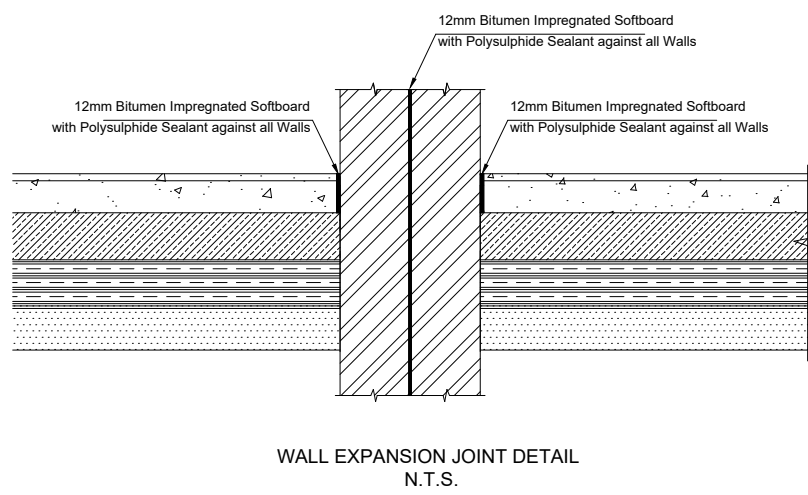
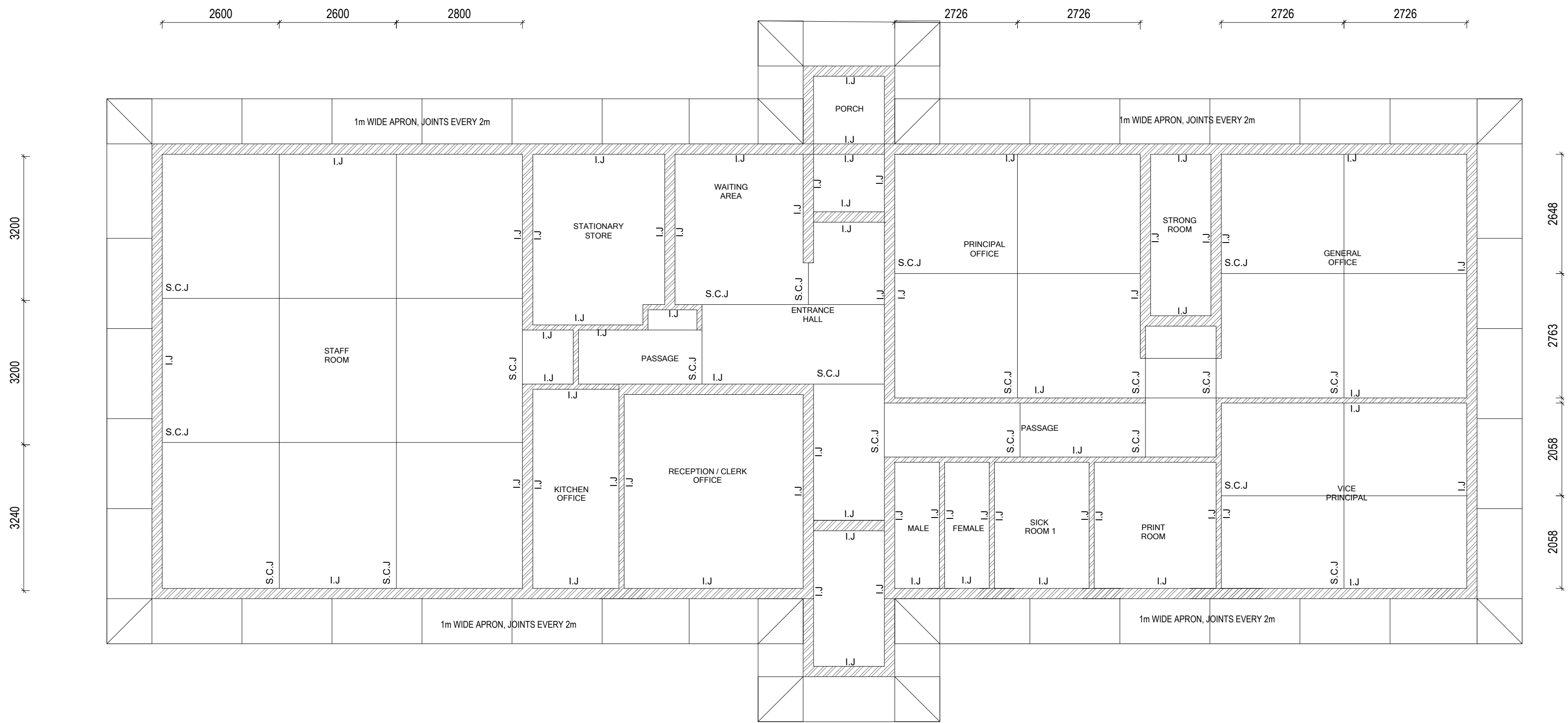
JOINT DETAILS – SECTIONS

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FOUNDATION DETAILS – SECTIONS

395



JOINT DETAILS – SECTIONS

1. GENERAL NOTES

- 1.1. All work to be done in accordance with the National Building Regulations and the relevant SABS Specifications.
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Beam soffits without removal of beam props	7
Props unloaded slabs	10
Props unloaded beams	14
- 2.4. Minimum concrete cover to reinforcement (in mm)

piles	50	beams	30
pile caps	50	slabs	20
ground beams	50	retaining walls (earth face)	30
columns	30	retaining walls (exposed face)	30
- 2.5. Concrete cube strength at 28 days in (MPa)

blinding	15	beams	25
Mortar(Class A)	15	slabs	25
columns	30	walls	25
- 2.6. Concrete cover to reinforcing to be maintained by the use of either nylon spacers or precast concrete blocks with binding wires cast in.
- 2.7. All floor levels, unless otherwise indicated , are structural slab levels.

3. FOUNDING

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PI < 6
Compacted to 96% MOD AASHTO in layers of 150mm
Non-cohesive and free draining

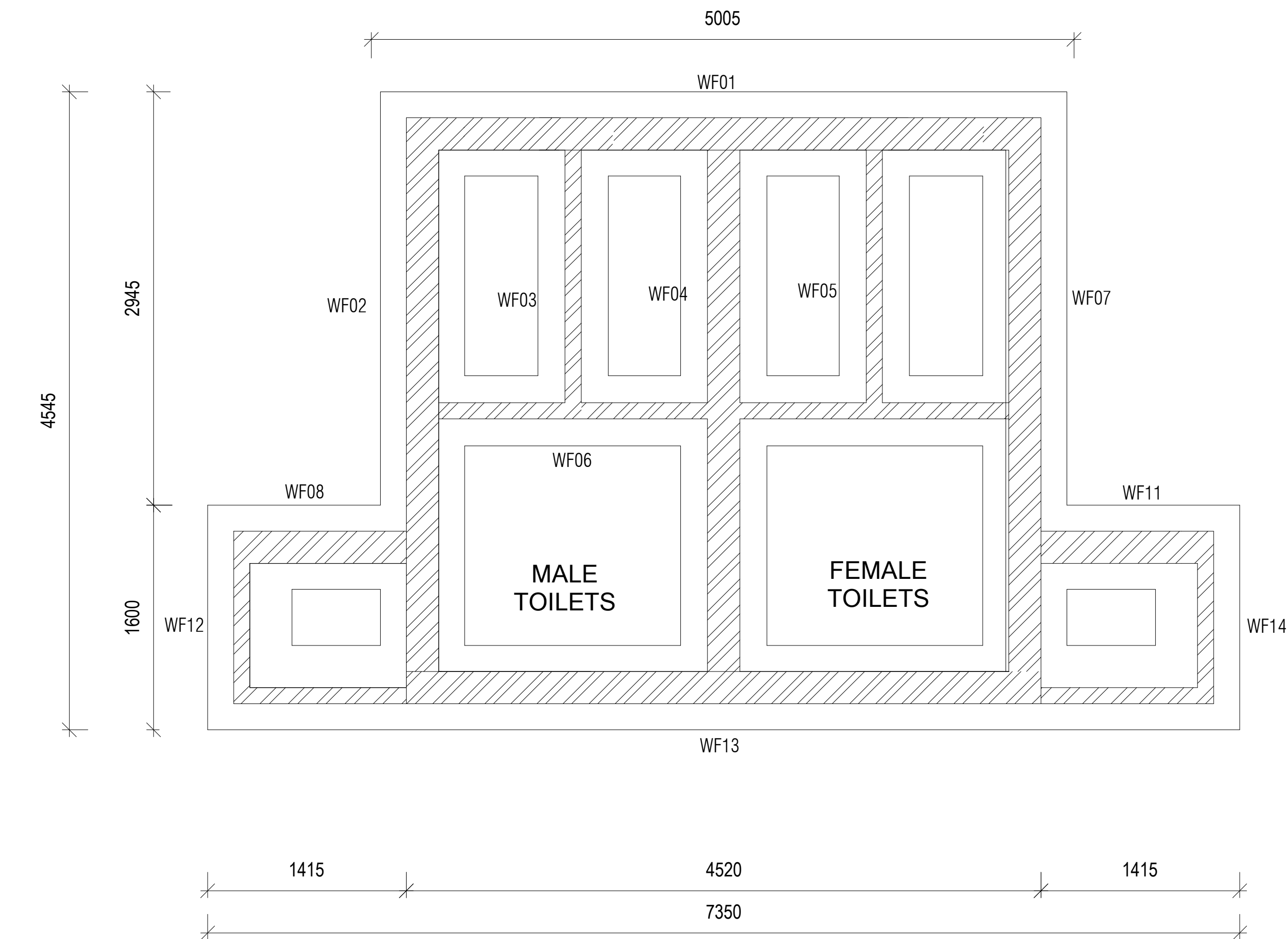
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- 4.1. All exposed concrete slabs and beams bearing on brickwork to have a slip joint made up of 2 sheets of masonite with smooth faces abutting each other at top of brick-concrete interface. Joint to extend through plaster.
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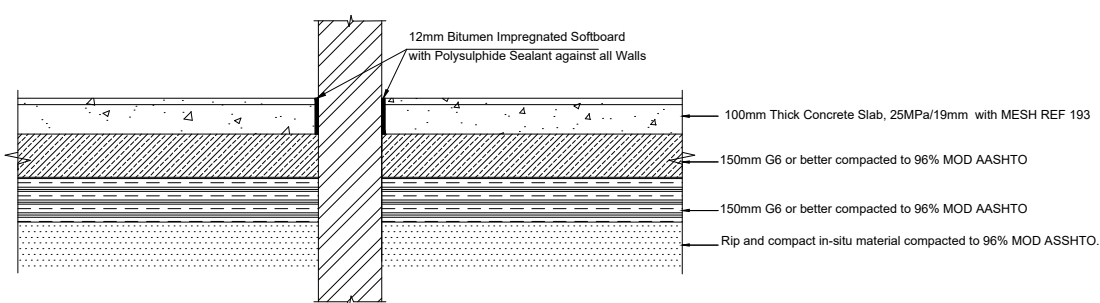
5. COMPLETION CERTIFICATE

- 5.1. No completion certificate shall be issued if all material amd compaction test results are not submitted to the Engineer

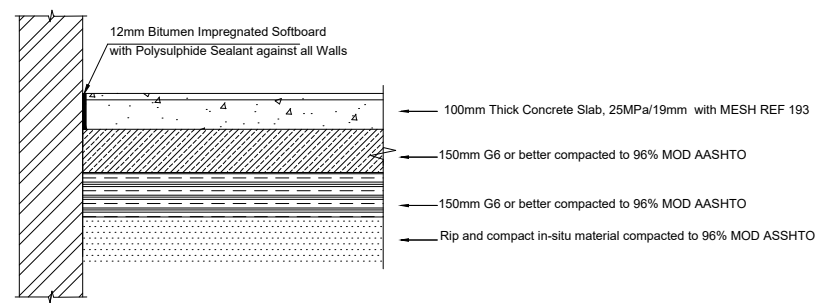
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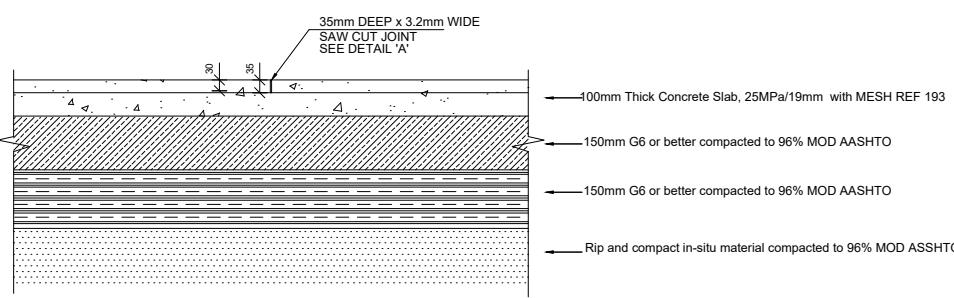
FOUNDATION LAYOUT – PLAN



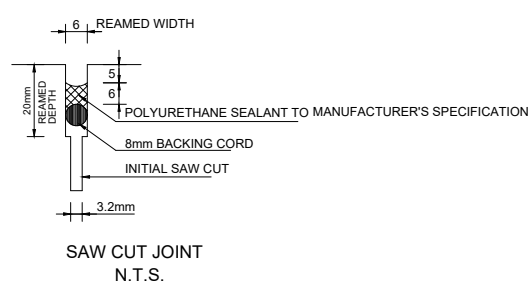
ISOLATION JOINT DETAIL
INTERNAL WALLS
N.T.S.



ISOLATION JOINT DETAIL
EXTERNAL WALLS
N.T.S.

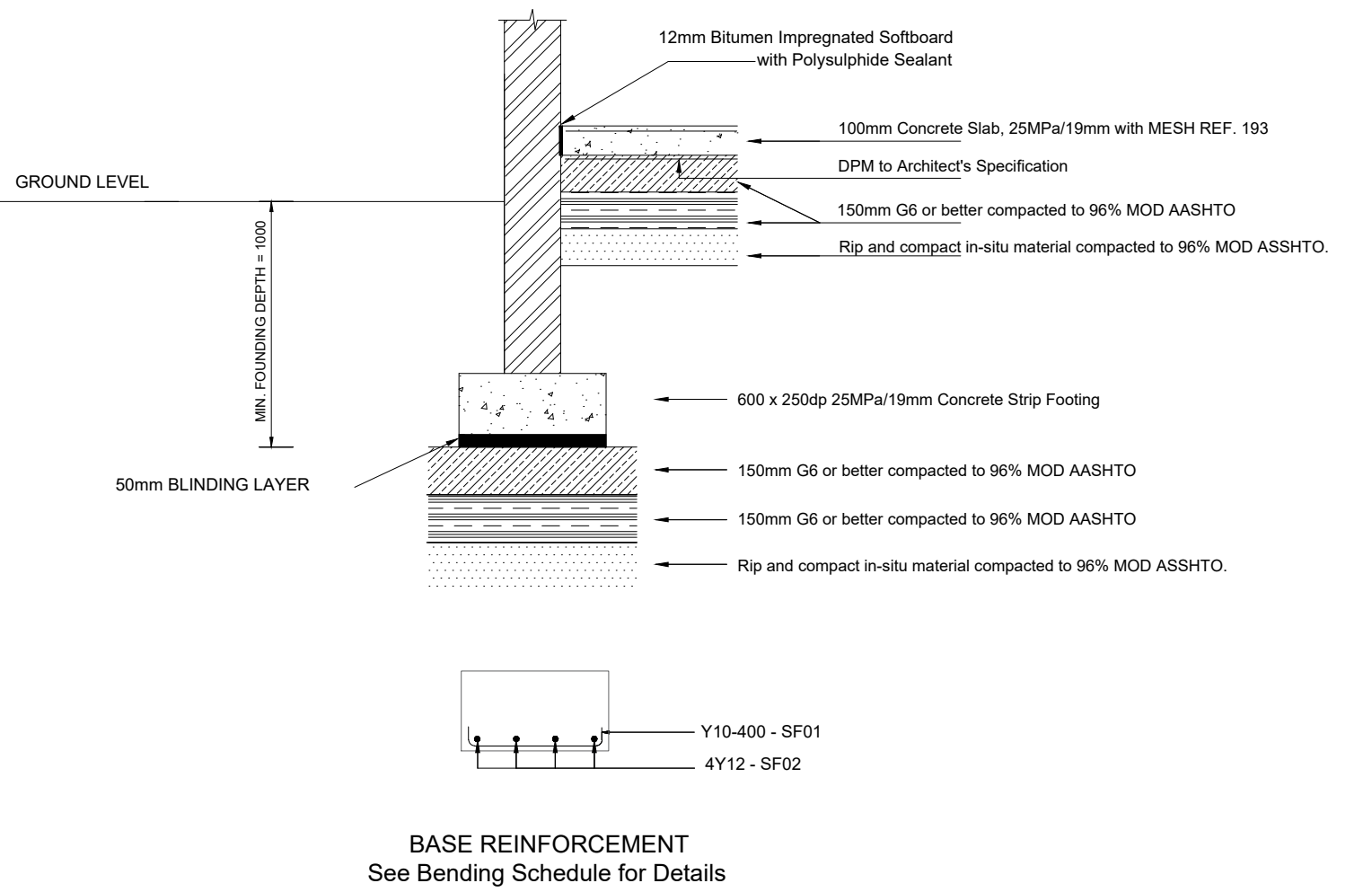


SAW CUT JOINT
N.T.S.

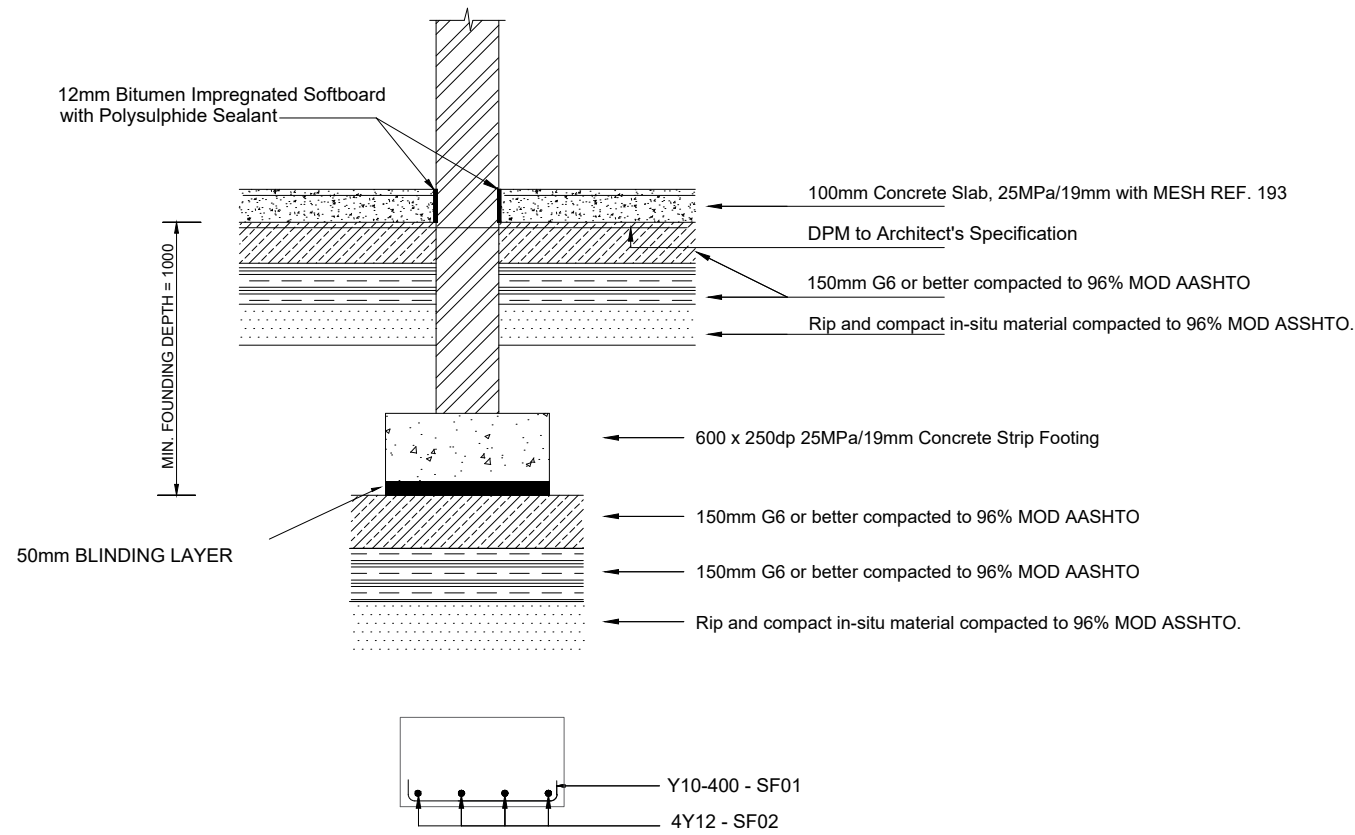


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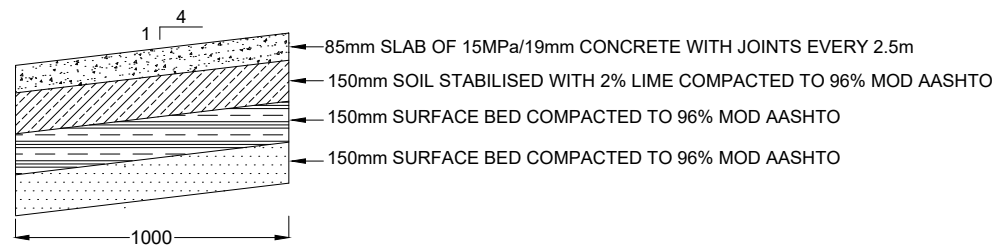
JOINT DETAILS – SECTIONS



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



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



APRON DETAIL

FOUNDATION DETAILS – SECTIONS

1. GENERAL NOTES

- 1.1. All work to be done in accordance with the National Building Regulations and the relevant SABS Specifications.
- 1.2. All drawings to be read in conjunction with Architect's drawings and any discrepancies must be reported to the Engineer prior to any setting out of work.
- 1.3. No structural alterations are to be made without amended drawings.
- 1.4. All drawings must be checked by the Contractor and any discrepancies should be reported to the Engineer before any work commences.
- 1.5. All waterproofing and drainage to be to Architect's details and instructions.
- 1.6. Contractor to ensure that stability of banks and excavations are continuously maintained throughout the construction period.

2. R.C. CONSTRUCTION

- 2.1. No concrete is to be poured before the Engineer has inspected and approved the fixing of the reinforcement , 48 hours notice is required.
- 2.2. Breaks in concrete and construction joints are to be made only with Engineer's approval.
- 2.3. Shuttering and propping may be struck only after the lapse of the following times (in days):

Beam sides, walls and unloaded columns	2
Slab soffits without removal of slab props	4
Beam soffits without removal of beam props	7
Props unloaded slabs	10
Props unloaded beams	14
- 2.4. Minimum concrete cover to reinforcement (in mm)

piles	50	beams	30
pile caps	50	slabs	20
ground beams	50	retaining walls (earth face)	30
columns	30	retaining walls (exposed face)	30

- 2.5. Concrete cube strength at 28 days in (MPa)

blinding	15	beams	25
Mortar(Class A)	15	slabs	25
columns	30	walls	25
- 2.6. Concrete cover to reinforcing to be maintained by the use of either nylon spacers or precast concrete blocks with binding wires cast in.
- 2.7. All floor levels, unless otherwise indicated , are structural slab levels.

3. FOUNDING

- 3.1. Foundations are subject to alterations as excavations proceed.
- 3.2. No foundations are to be cast or reinforcement fixed in bases until excavations have been approved by an Engineer.
- 3.3. All backfill material under foundations and floors to be as follows:

G6 Material or better
PI < 6
Compacted to 96% MOD AASHTO in layers of 150mm
Non-cohesive and free draining

4. ADDITIONAL NOTES

- 4.1. All exposed concrete slabs and beams bearing on brickwork to have a slip joint made up of 2 sheets of masonite with smooth faces abutting each other at top of brick-concrete interface. Joint to extend through plaster.
- 4.2. Special attention to be given to curing of concrete. Exact details to be discussed with Engineer on site prior to pouring of any concrete.
- 4.3. Two lintels plus five courses of brickwork to be built over all openings - reinforced every course with brickforce.
- 4.4. All brickwork to have a minimum compressive strength of 15MPa.
- 4.5. A construction joint sealed with suitable flexible sealant is to be formed at all junctions between new brickwork and existing brickwork.
- 4.6. No brickwork is to be built onto suspended slabs or beams until slabs/beams have attained their full strength and have been depropped.
- 4.7. All deviations from architect's drawing to be confirmed by architect prior to construction.
- 4.8. All work to be carried out in accordance with the National Building Regulations, Environmental and Occupational Health and Safety Act, (latest revision) and the Construction Regulations.
- 4.9. The main contractor is to ensure that a competent person, approved by the South African Qualification Authority supervises and approves all aspects of the requirements of the Occupational Health and Safety Act, latest revision.
- 4.10. All temporary works to be designed, detailed, supervised and certified by a competent person or professional engineer as defined in the OHS ACT.
- 4.11. The works will be inspected from time to time by the consulting engineer to ascertain that the contractor is carrying out the work in general conformity with the engineering drawings and documents. Such inspections are not carried out for the benefit of the contractor, and do not relieve him of the responsibility for the proper construction of the works in accordance with the engineering drawings, documents & good building practice.

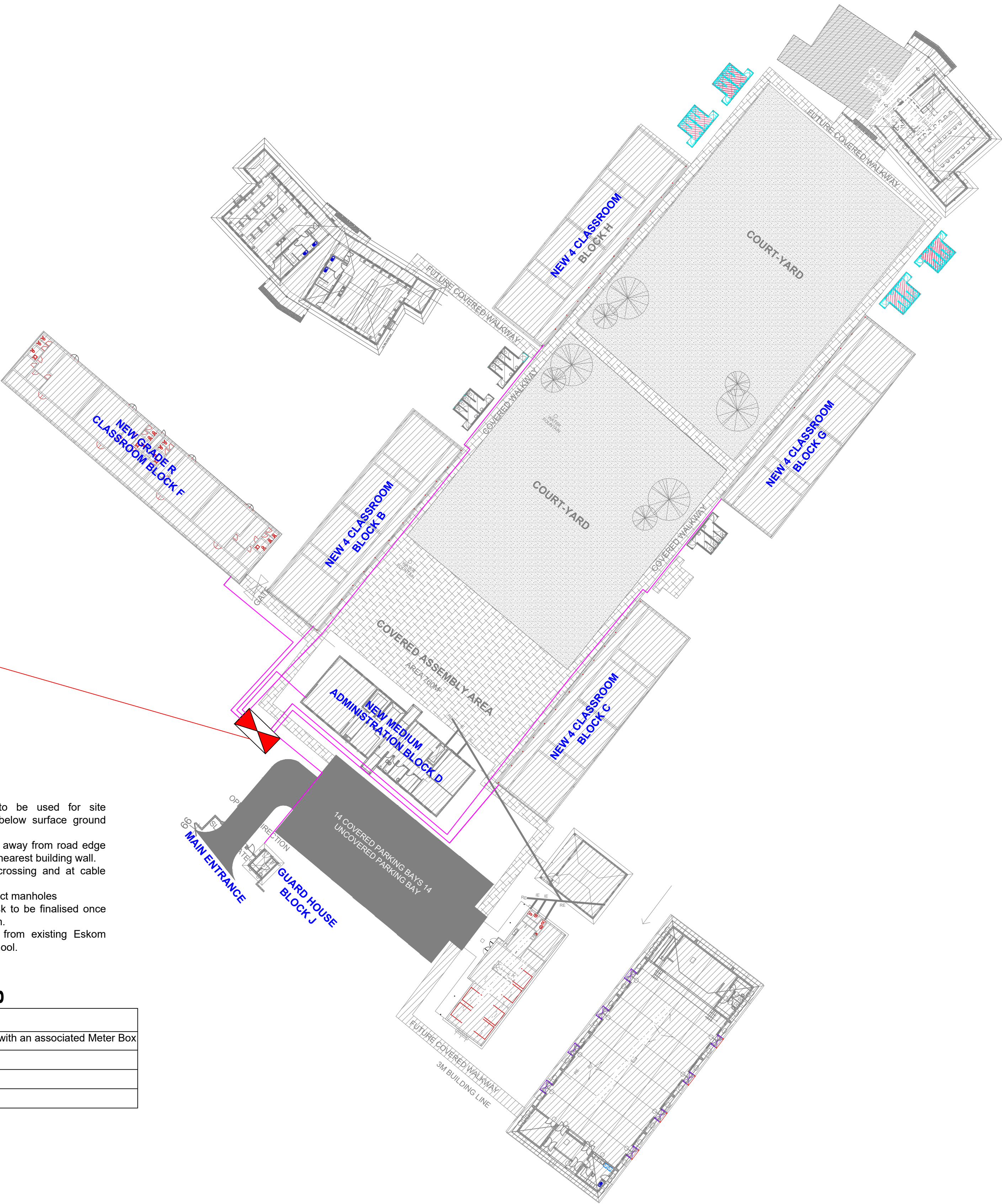
5. COMPLETION CERTIFICATE

- 5.1. No completion certificate shall be issued if all material amd compaction test results are not submitted to the Engineer

REV	DATE	CHK	APP	DESCRIPTION	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
					LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE	MUTEO CONSULTING		DESIGNED	10/08/2021	V.M		DO NOT SCALE IF IN DOUBT ASK.	TITLE
								CHECKED	10/08/2021	E.M			DAVID SCARA PRIMARY SCHOOL WATER BORNE TOILET BLOCK FOUNDATION LAYOUT & DETAILS
								DRAWN	10/08/2021	V.M			PROJECT No.
								PROJECT MNG.					LDPWRI-PROF/16003B
								APPROVED					DRAWING No.
								CLIENT				DRG SIZE	A1
													LDPWRI SCHOOLS/B/D.SCARA/06
													REV
													0

REPUBLIC OF SOUTH AFRICA
**LIMPOPO DEPARTMENT OF PUBLIC WORKS &
INFRASTRUCTURE**
DAVID SCARA KUTUMELA PRIMARY SCHOOL
LDPWRI-B/20102

ELECTRICAL DRAWINGS



ELECTRICAL NOTES:

- 2 core XLPE copper cable to be used for site reticulation buried at 1200mm below surface ground level.
- Cables installation to be 800mm away from road edge and at least 3000mm away from nearest building wall.
- Manholes to be used at road crossing and at cable bends of 90 degrees.
- PVC sleeves to be used to connect manholes
- Position of transformer and Kiosk to be finalised once positions are confirmed by Eskom.
- MV network to be constructed from existing Eskom network about 200m from the school.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	16kVA Dedicated Transformer with an associated Meter Box
	16mm² PVC Cu Cable
	10mm² PVC Cu Cable
	Kiosk

DETAIL SYMBOL

REVISIONS DURING CONSTRUCTION			
No	DATE	DESCRIPTION	SIGN

REVISIONS PRIOR CONSTRUCTION			
No	DATE	DESCRIPTION	SIGN

KEY PLAN

ELECTRICAL ENGINEERS

**NSK**
ELECTRICAL & CONSTRUCTION MANAGERS

NSK ELECTRICAL AND CONSTRUCTION MANAGERS PTY LTD
Physical Address :Block 7, 38 Burger Street, Polokwane, 0699.
Postal Address :Suite 141/151, Private Bag, 40170/Polokwane,0700
Tel :015 295 2104
Cell :082 459 9062 / 079 765 0921
Email :nsk_ecm@yahoo.com or prince@nsk.ecm.co.za

ARCHITECT

CLIENT

LIMPOPO DEPARTMENT OF EDUCATION

PROJECT TITLE

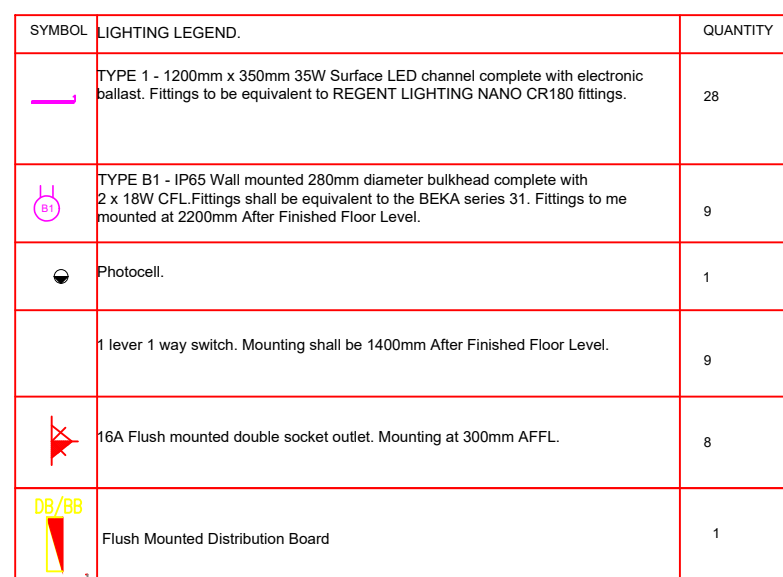
DAVID SCARA PRIMARY SCHOOL

PROJECT ELECTRICAL ENGINEER PRINCE KWEMBEYA

DRAWING TITLE

SITE DEVELOPMENT PLAN

PROJECT No		DRG No	STAGE	REV
NSK-00102		NSK-DS-H01	C	0
SCALE	DATE	DRAWN	CHECKED	
NTS	19/06/2021	M.S	P.K	



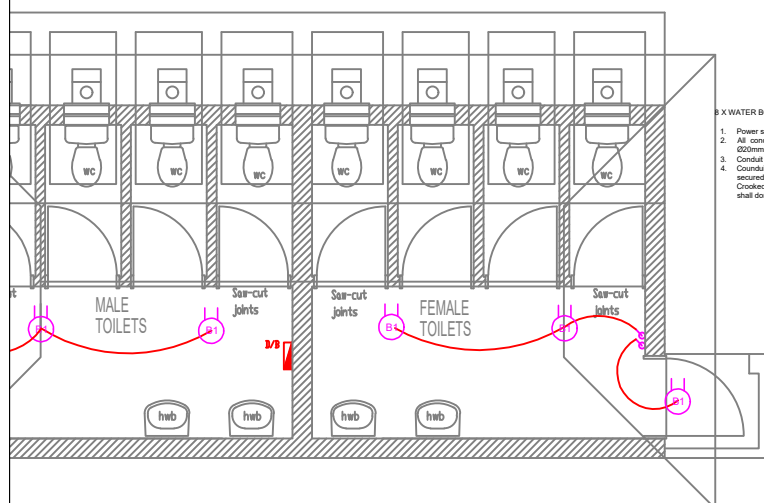
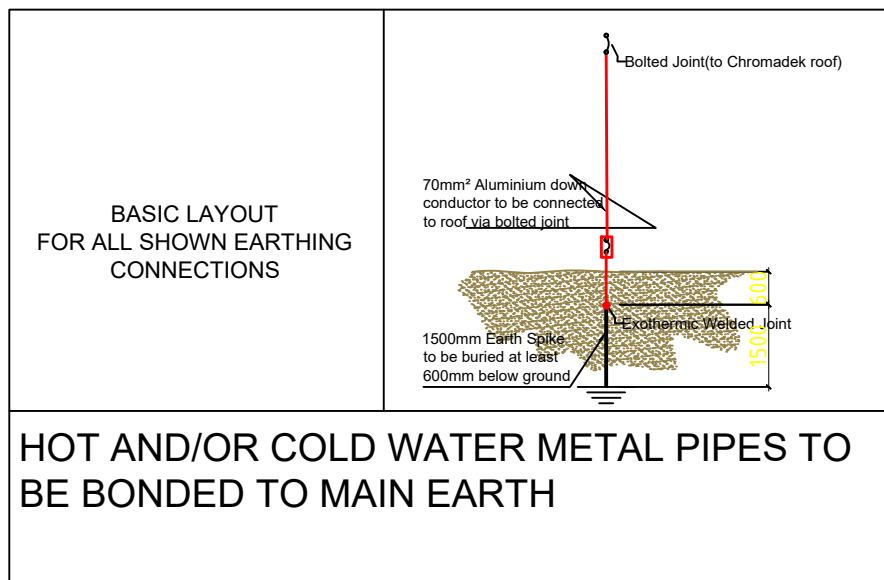
4 CLASSROOM BLOCK ELECTRICAL NOTES

4 CLASSROOM BLOCK ELECTRICAL NOTES

1. Install new electrical installation as per the design drawing.
2. All conduit to be used for small power and lighting installation shall be 625mm and 620/60mm SABS approved PVC conduit respectively.
3. 2.5mm² and 4mm² GP wire (with 2.5mm² bare copper earth wire for all circuits) shall be used for wiring the lighting and small power circuits respectively.
4. Positions of socket outlets on this drawings are indicative. Actual positions of the socket outlets to be finalised on site.
5. Light fittings shall bear the SABS stamp of approval.
6. Light fittings, sockets, light switches and distribution board shall be installed flush and square and at positions indicated on the drawing. Change of position shall be effected after approval by the Electrical Engineer.
7. After installation is complete, label equipment, test and issue Certificate of Compliance for the installation.

1. The earthing and lightning protection shall be installed by a specialist.
2. Such specialist as appointed by the contractor shall ensure the installation is compliant to the requirements of SANS 10199 and SANS 62305 and shall issue a certificate after completion of the works.
3. All down conductors shall be of Solid Aluminium conductor and shall be installed inside Ø25mm pvc pipes which shall be chased inside the wall.
4. 4" x 4" Test Boxes shall also be installed at 300mm AFFL. These shall be installed flush on the outside wall for all earthing connections.
5. All connections between conductor and earth spikes shall be exothermically welded.
6. The layout shown for electrode installation is a guide and should there be any need to drive the rods deeper into the ground or add more rods to lower the ground resistance the specialist shall inform the Electrical Engineer.

Symbol	Description
	1500mm earth spike

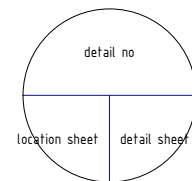


TING LEGEND.

For 1 way switch, Mounting shall be 1400mm After Finished Floor Level.

F B1 - IP65 surface mounted 183mm diameter bulkhead complete with CFL. Fittings shall be equivalent to the BEKA series 31. Fittings to be fitted at 2200mm After Finished Floor Level.

Mounted Distribution Board



REVISIONS DURING CONSTRUCTION

[illegible]

REVISIONS PRIOR CONSTRUCTION

[illegible]

KEY PLAN:

ELECTRICAL ENGINEERS



NSK ELECTRICAL AND CONSTRUCTION MANAGERS PTY LTD
Physical Address : Block 7, 38 Burger Street, Polokwane, 0699.
Postal Address : Suite kkk133, Private Bag, X9700, Polokwane, 0700
Tel : 015 295 2104
Cel : 082 459 9082 / 079 765 0921
Email : ecm@yahoo.com or prince@nskecm.co.za

ARCHITECT

CLIENT

LIMPOPO DEPARTMENT OF PUBLIC WORKS

PROJECT TITLE

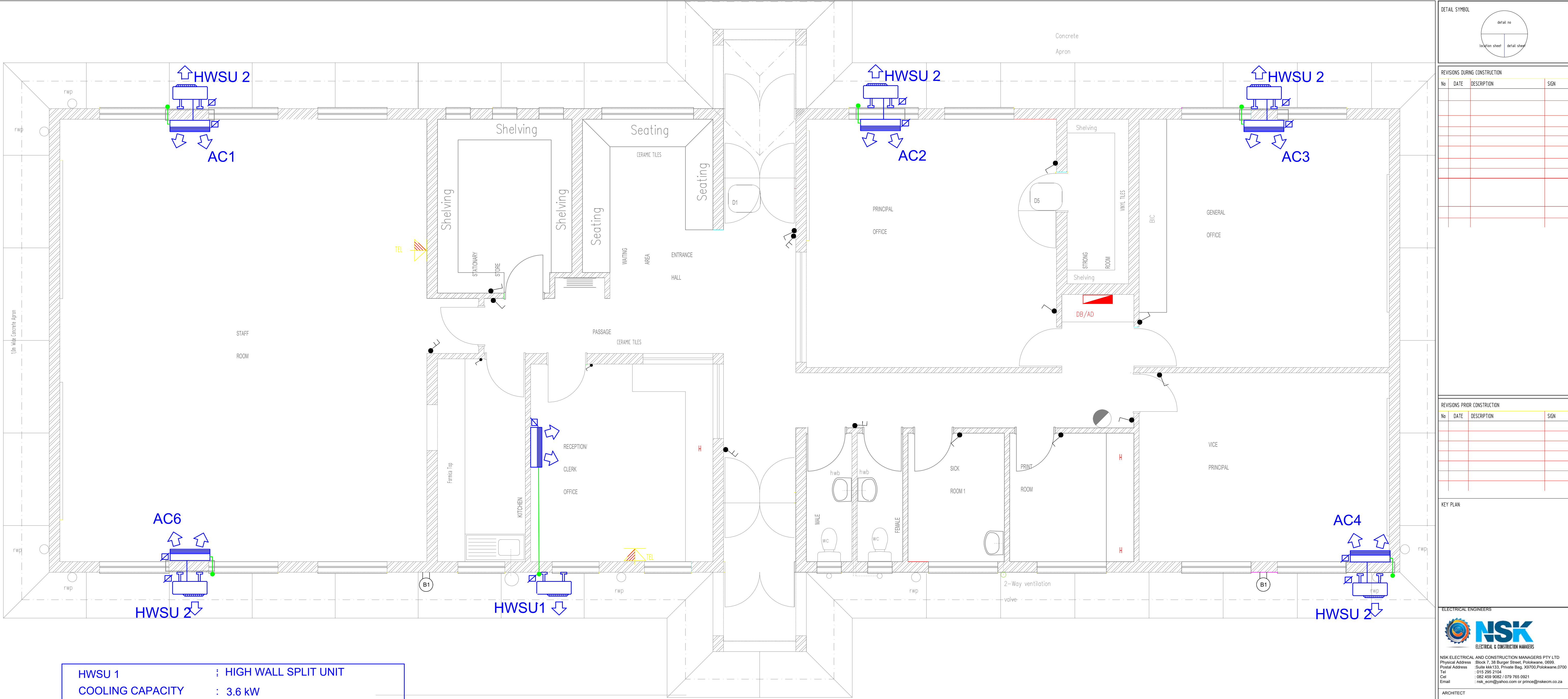
David Scara Primary School

PROJECT ELECTRICAL ENGINEER PRINCE KWEMBEYA

DRAWING TITLE

NEW 4 CLASSROOM BLOCK LIGHTING AND
SMALL POWER

PROJECT No		DRG No	STAGE	REV
NSK-00028		NSK-MM-04	C	0
SCALE	DATE	DRAWN	CHECKED	
NTS	13/07/2021	M.S	P.K	



HWSU 1	: HIGH WALL SPLIT UNIT
COOLING CAPACITY	: 3.6 kW
HEATING CAPACITY	: 3.6 kW
POWER INPUT	: 1.4 kW, 1ph, 50Hz
AIR CIRCULATION	: 580m3/h
MAXIMUM INPUT CURRENT	6.3 A
QUANTITY	: 3 UNITS

HWSU 2	: HIGH WALL SPLIT UNIT
COOLING CAPACITY	: 5.0 kW
HEATING CAPACITY	: 5.3 kW
POWER INPUT	: 1.8 kW, 1ph, 50Hz
AIR CIRCULATION	: 800m3/h
MAXIMUM INPUT CURRENT	7.8 A
QUANTITY	: 1 UNIT

HWSU 3	: HIGH WALL SPLIT UNIT
COOLING CAPACITY	: 5.3 kW
HEATING CAPACITY	: 5.9 kW
POWER INPUT	: 2.2 kW, 1ph, 50Hz
AIR CIRCULATION	: 1000m3/h
MAXIMUM INPUT CURRENT	13.5 A
QUANTITY	: 1 UNIT

☑	20A Single Phase Isolator
---	---------------------------

HVAC NOTES

1. HVAC installation to be done by a specialist to ensure system is effective and efficient.
2. Installer to coordinate the HVAC unit sizes to the available mounting space for both indoor and outdoor units. Measurements of proposed HVAC units to be compared with space available for mounting of both indoor and outdoor units
3. Shortest route for refrigerant pipe between indoor and outdoor unit to be used.
4. Minimum mounting height of indoor units must be 2200mm after finished floor level.
5. All indoor isolators to be flush mounted adjacent to indoor unit.
6. All conduit required for power supply to indoor units to be chased inside wall.
7. All isolators shall each be supplied by a 20A circuit breaker mounted in DB-AD. Electrician to add 5 x 20 1 phase circuit breakers in DB-AD to accommodate the HVAC units.

DETAIL SYMBOL

detail no

location sheet

detail sheet

REVISIONS DURING CONSTRUCTION


No	DATE	DESCRIPTION	SIGN

REVISIONS PRIOR CONSTRUCTION

No	DATE	DESCRIPTION	SIGN

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Tel : 015 295 2104
Cell : 082 459 0062 / 079 765 0921
Email : nsk_ecm@yahoo.com or prince@nskecm.co.za

ARCHITECT

CLIENT

LIMPOPO DEPARTMENT OF EDUCATION

PROJECT TITLE

DAVID SCARRA PRIMARY SCHOOL

PROJECT ELECTRICAL ENGINEER

PRINCE KWEMBEYA

DRAWING TITLE

NEW ADMINISTRATION BLOCK
HVAC

PROJECT No	DRG No	STAGE	REV
NSK-00102	NSK-MM-H01	C	0

SCALE	DATE	DRAWN	CHECKED
NTS	19/06/2021	M.S	P.K

DETAIL SYMBOL

detail no

location sheet

detail sheet

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No	DATE	DESCRIPTION	SIGN

REVISIONS PRIOR CONSTRUCTION

No	DATE	DESCRIPTION	SIGN

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Tel: 015 265 2104

Cell: 082 459 5052 / 078 765 0921

Email: nsk_ecm@yahoo.com or prince@nskcm.co.za

ARCHITECT

Prism Architects

Hampton Court

8 Reedding Street

Bender

Polokwane, 0959

Fax: 015 265 5379

Tel: 015268 4570

Email: info@prism-arch.co.za

CLIENT

LIMPOPO DEPARTMENT OF PUBLIC WORKS

PROJECT TITLE

David Scara Primary School

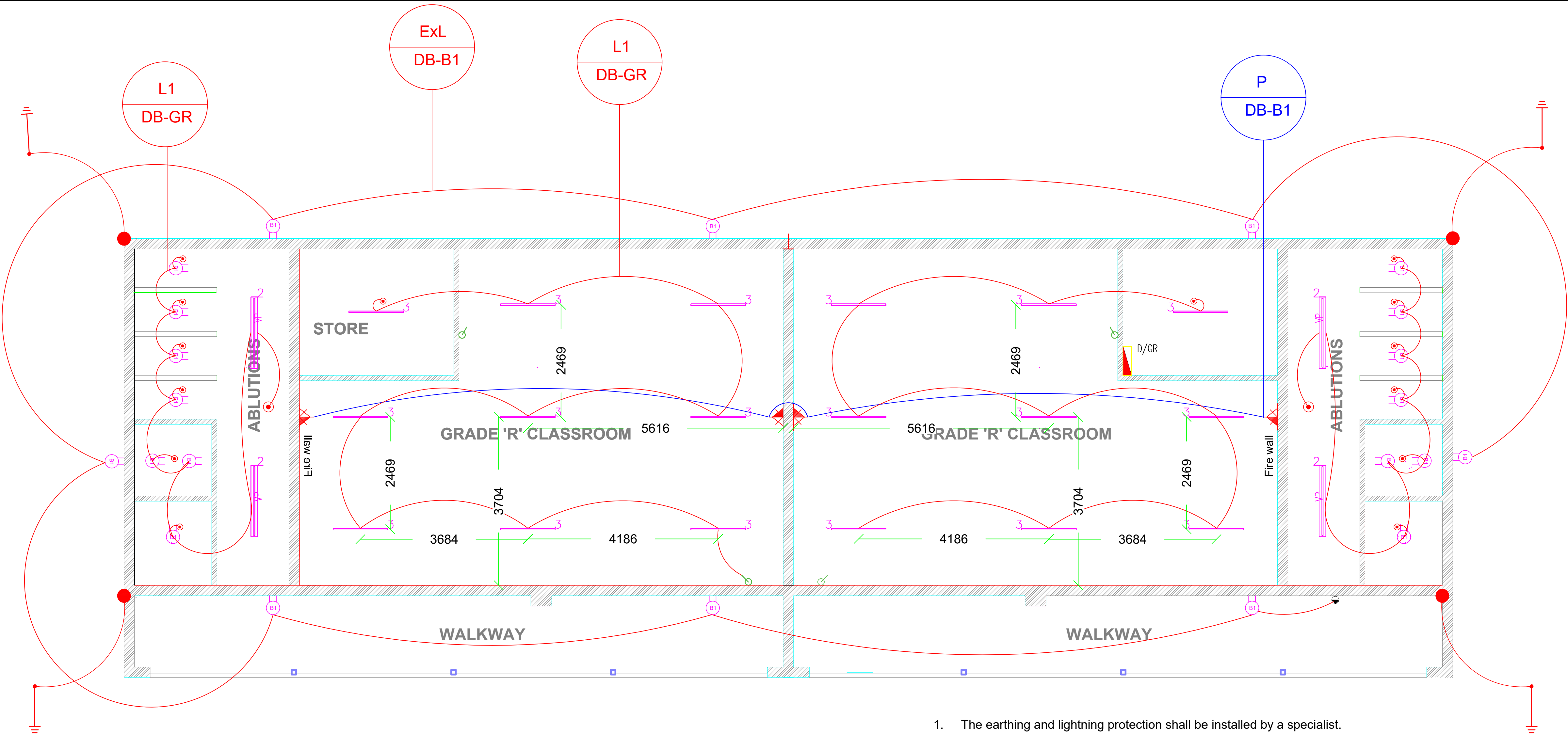
PROJECT ELECTRICAL ENGINEER









PRINCE KWEMBEYA

DRAWING TITLE

NEW GRADE R CLASSROOM BLOCK

PROJECT No	DRG No	STAGE	REV
NSK-00028	NSK-MM-04	C	0
SCALE	DATE	DRAWN	CHECKED
NTS	13/07/2021	M.S	P.K



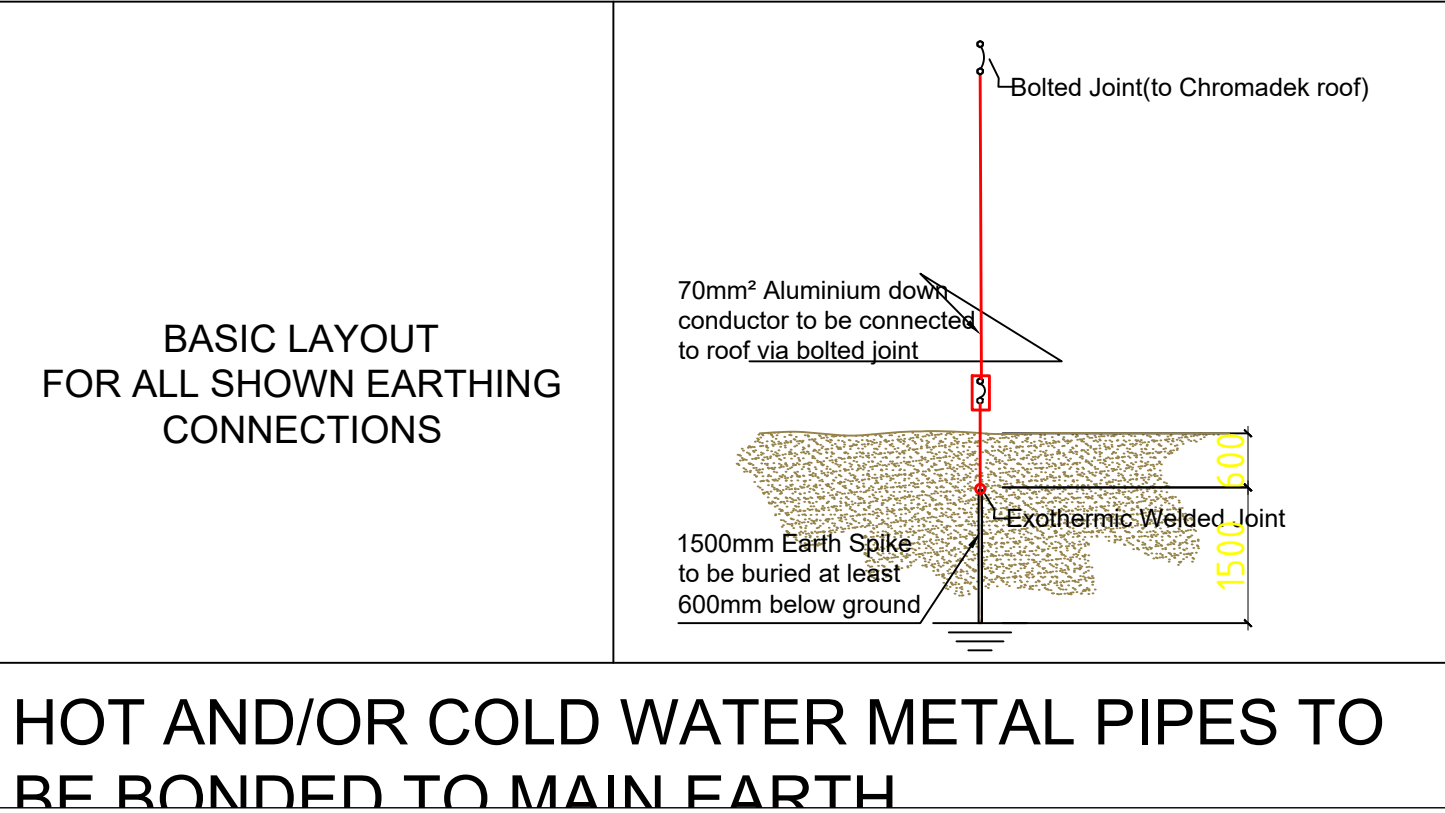
SYMBOL	LIGHTING LEGEND.	QUANTITY
	TYPE 1 - 1200mm x 350mm 35W Surface LED channel complete with electronic ballast. Fittings to be equivalent to REGENT LIGHTING NANO CR180 fittings.	18
	TYPE B1 - IP65 surface mounted 183mm diameter bulkhead complete with 15W CFL.Fittings shall be equivalent to the BEKA series 31. Fittings to be mounted at 2200mm After Finished Floor Level.	14
	Photocell.	1
	1 lever 1 way switch. Mounting shall be 1400mm After Finished Floor Level.	2
	16A Flush mounted double socket outlet. Mounting at 300mm AFFL.	4
	Flush Mounted Distribution Board	1
	TYPE 2 - IP65, vapour proof, open channel with 2 x 58W T8 flourescent tubes complete with electronic ballast.	2
	Dual Technology Occupancy sensor	14

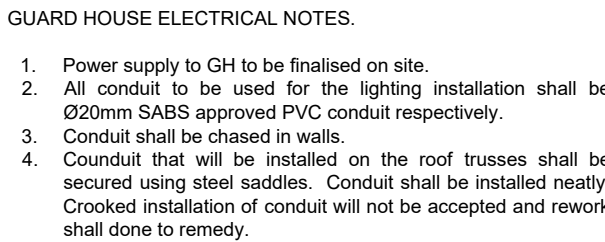
- GRADE R CLASSROOM BLOCK ELECTRICAL NOTES.
1. Install new electrical installation as per the design drawing.
 2. All conduit to be used for small power and lighting installation shall be Ø25mm and Ø20mm SABS approved PVC conduit respectively.
 3. 2.5mm² and 4mm² GP wire (with 2.5mm² bare copper earth wire for all circuits) shall be used for wiring the lighting and small power circuits respectively.
 4. Positions of socket outlets on this drawings are indicative. Actual positions of the socket outlets to be finalised on site.
 5. Light fittings shall bear the SABS stamp of approval.
 6. Light fittings , sockets , light switches and distribution board shall be installed flush and square and at positions indicated on the drawing. Change of position shall be effected after approval by the Electrical Engineer.
 7. After installation is complete, label equipment, test and issue Certificate of Compliance for the installation.

1. The earthing and lightning protection shall be installed by a specialist.
2. Such specialist as appointed by the contractor shall ensure the installation is compliant to the requirements of SANS 10199 and SANS 62305 and shall issue a certificate after completion of the works.
3. All down conductors shall be of Solid Aluminium conductor and shall be installed inside Ø25mm pvc pipes which shall be chased inside the wall.
4. 4" x 4" Test Boxes shall also be installed at 300mm AFFL. These shall be installed flash on the outside wall for all earthing connections.
5. All connections between conductor and earth spikes shall be exothermically welded.
6. The layout shown for electrode installation is a guide and should there be any need to drive the rods deeper into the ground or add more rods to lower the ground resistance the specialist shall inform the Electrical Engineer.

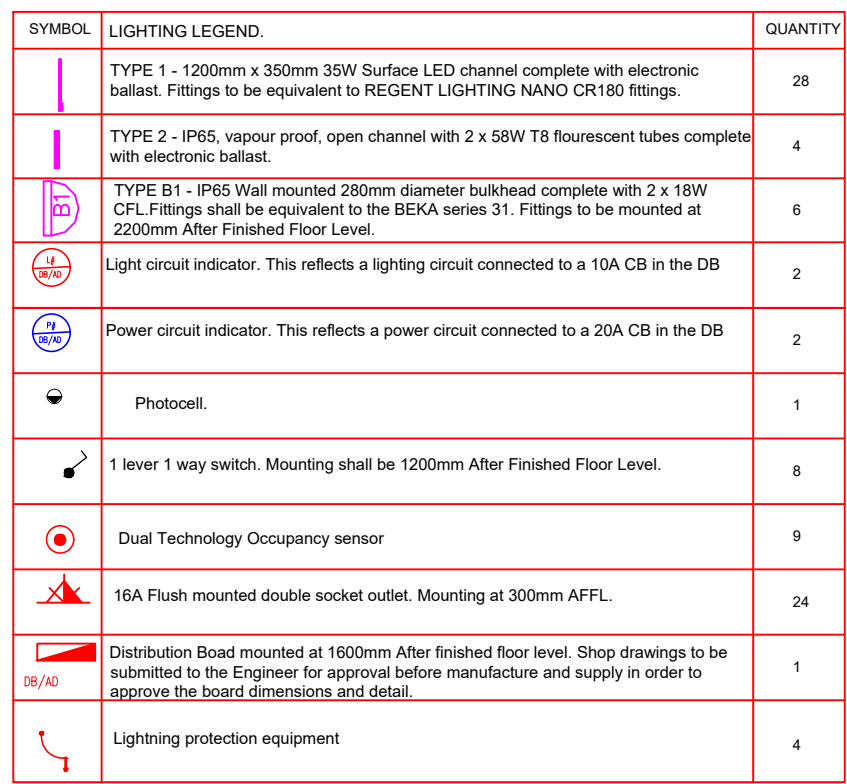
Symbol Description

1500mm earth spike




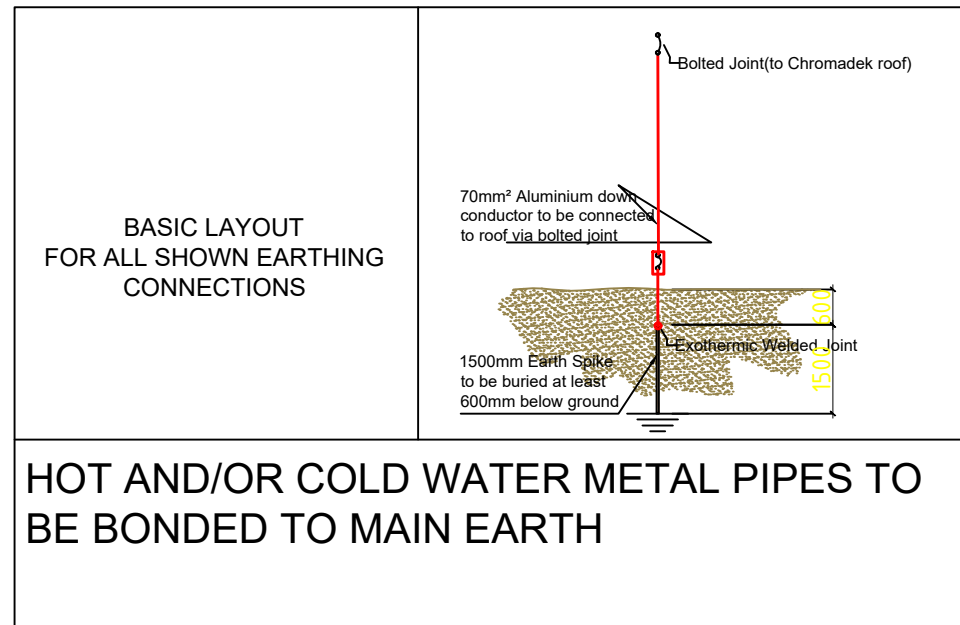


PROJECT No		DRG No		STAGE	REV
NSK-00028		NSK-MM-04		C	0
SCALE	DATE	DRAWN	CHECKED		
NTS	13/07/2021	M.S	P.K		



1. Install new electrical installation for the new Administration Blocks as per the design drawing.
2. All conduit to be used for small power and lighting installation shall be 62mm and 92mm SABS approved PVC conduit respectively.
3. 2.5mm² 4mm² GP wire with 2.5mm² 4mm² bare copper earth wire (all circuits) shall be used for wiring the lighting and small power circuits respectively.
4. Positions of socket outlets on this drawings are indicative. Actual positions of the socket outlets to be finalized on site.
5. Light fittings shall bear the SABS safety approval.
6. Light fittings, sockets, light switches and distribution board shall be installed flush and square and at positions indicated on the drawing. Change of position shall be effected after approval by the Electrical Engineer.
7. Distribution board positions shall be finalized on site.
8. After installation is complete, label equipment, test and issue Certificate of Compliance for the installation.

- | Symbol | Description |
|---|--------------------|
|  | 1500mm earth spike |

[illegible][illegible]

ARCHITECT

PROJECT TITLE

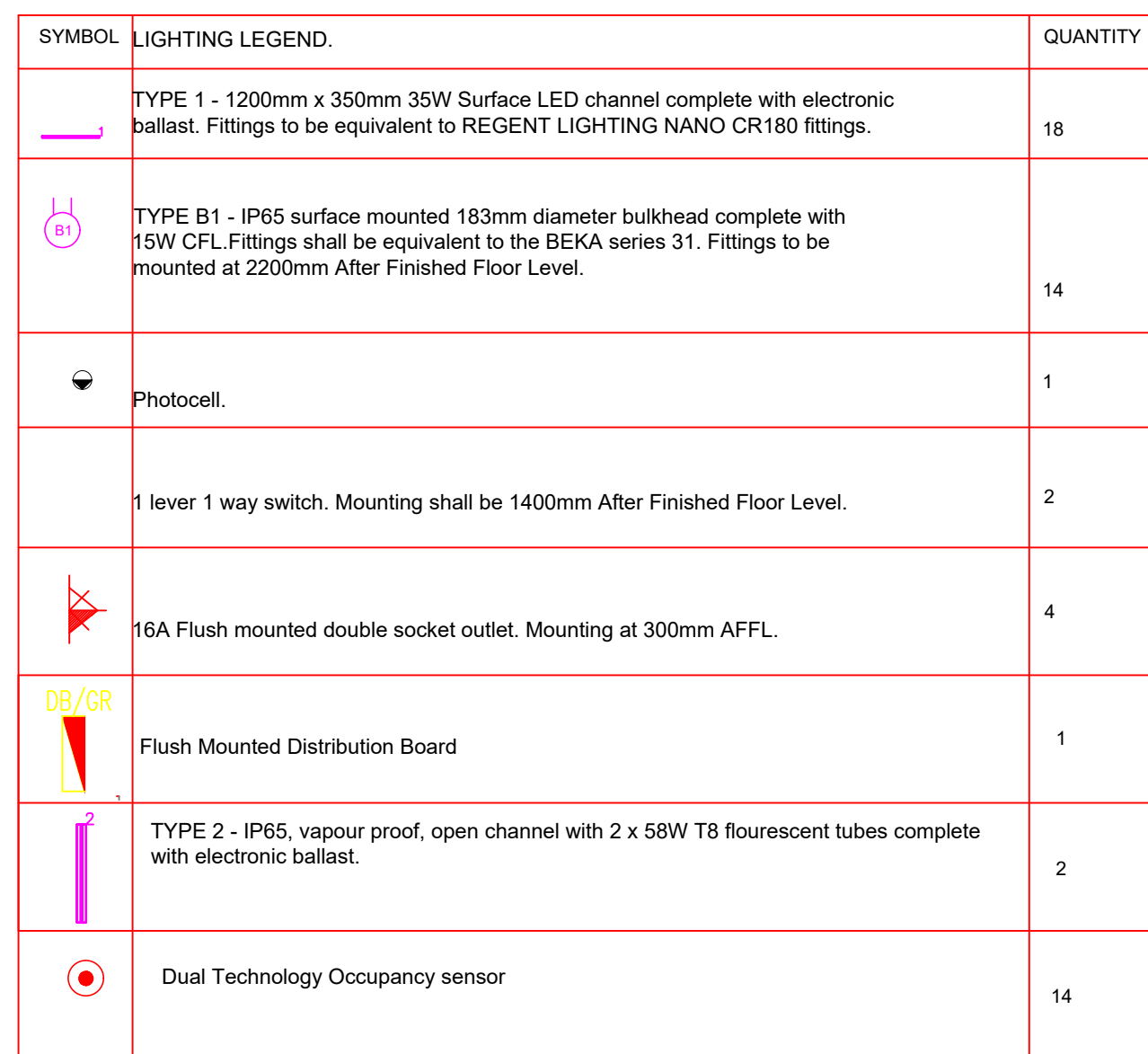
DAVID SCARA PRIMARY SCHOOL

PROJECT ELECTRICAL ENGINEER PRINCE KWEMBEYA

DRAWING TITLE

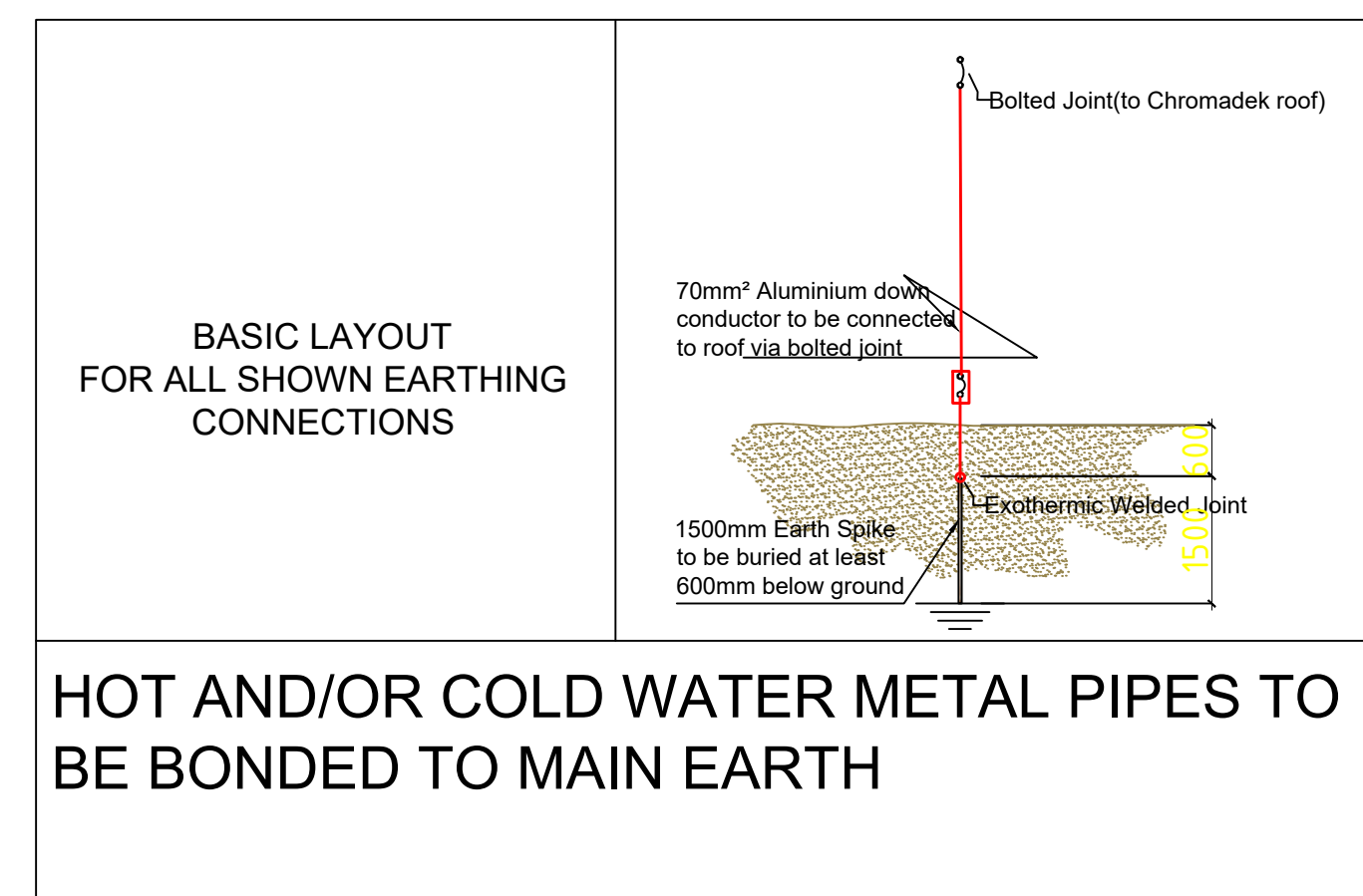
NEW ADMINISTRATION BLOCK
POWER, LIGHTING & LIGHTNING LAYOUT

PROJECT No		DRG No		STAGE	REV
NSK-00102		NSK-MM-03		D	0
SCALE	DATE	DRAWN		CHECKED	
1:50	13/06/2021	M.S		P.K	

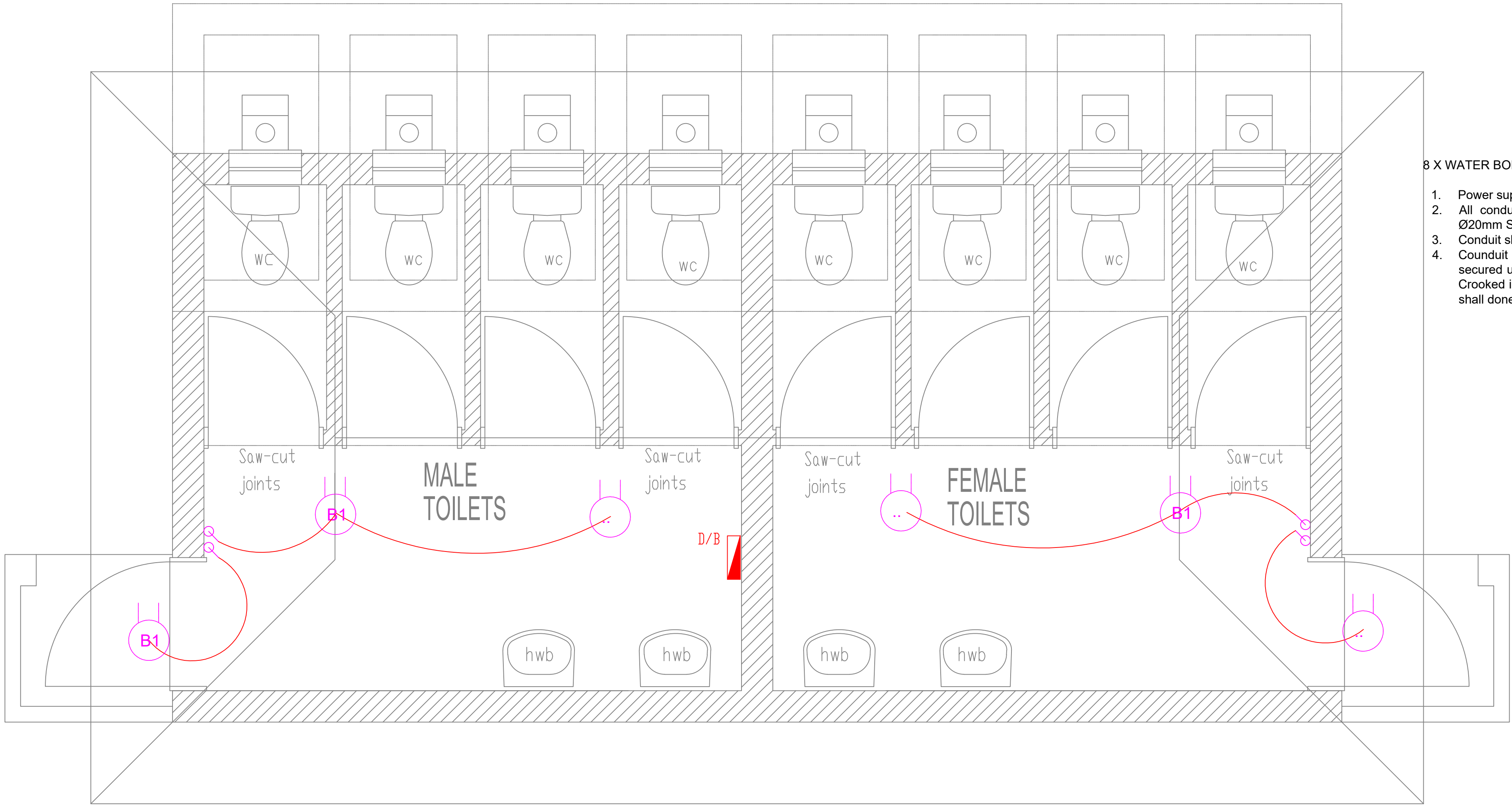


- .. Install new electrical installation as per the design drawing.
- .. All conduit to be used for small power and lighting installation shall be Ø25mm and Ø20mm SABS approved PVC conduit respectively.
- .. 2.5mm² and 4mm² GP wire (with 2.5mm² bare copper earth wire for earthing) shall be used for wiring the lighting and small power circuits respectively.
- .. Positions of socket outlets on this drawings are indicative. Actual positions of the socket outlets to be finalised on site.
- .. Light fittings shall bear the approval of the relevant authority.
- .. Light fittings, sockets, light switches and distribution board shall be installed flush and square and at positions indicated on the drawing. Change of position shall be effected after approval by the Electrical Engineer.
- .. After installation is complete, label equipment, test and issue Certificate of Compliance for the installation.

- | Symbol | Description |
|--------|--------------------|
| | 1500mm earth spike |



405




8 X WATER BORNE TOILETS ELECTRICAL NOTES.

1. Power supply to WBTs to be finalised on site.
2. All conduit to be used for the lighting installation shall be Ø20mm SABS approved PVC conduit respectively.
3. Conduit shall be chased in walls.
4. Conduit that will be installed on the roof trusses shall be secured using steel saddles. Conduit shall be installed neatly. Crooked installation of conduit will not be accepted and rework shall done to remedy.

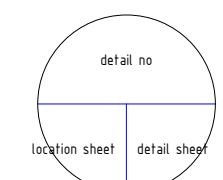
SYMBOL LIGHTING LEGEND.

1 lever 1 way switch. Mounting shall be 1400mm After Finished Floor Level.

 TYPE B1 - IP65 surface mounted 183mm diameter bulkhead complete with 15W CFL. Fittings shall be equivalent to the BEKA series 31. Fittings to be mounted at 2200mm After Finished Floor Level.

 Flush Mounted Distribution Board

DETAIL SYMBOL



REVISIONS DURING CONSTRUCTION


No	DATE	DESCRIPTION	SIGN

REVISIONS PRIOR CONSTRUCTION

No	DATE	DESCRIPTION	SIGN

KEY PLAN

ELECTRICAL ENGINEERS



NSK ELECTRICAL AND CONSTRUCTION MANAGERS PTY LTD
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Postal Address : Suite MA133, Private Bag, 10700, Polokwane, 0700.
Tel : 015 295 2104
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Email : nsk_ecm@yahoo.com or prince@nskecm.co.za

ARCHITECT

CLIENT

LIMPOPO DEPARTMENT OF PUBLIC WORKS

PROJECT TITLE

David Scara Primary School

PROJECT ELECTRICAL ENGINEER

PRINCE KWEMBEYA

DRAWING TITLE

WATER BORNE TOILET

PROJECT No	DRG No	STAGE	REV
NSK-00028	NSK-MM-04	C	0
SCALE	DATE	DRAWN	CHECKED
NTS	13/07/2021	M.S	P.K