



**BID NUMBER: LDPWRI-B/20353**

**APPOINTMENT OF A CONTRACTOR FOR THE COMPLETION OF NUTRITION CENTRE, SMALL ADMINISTRATION BLOCK, LIBRARY AND COMPUTER CENTRE COMBO, 6 SEATER WATERBORNE TOILETS, GUARD HOUSE, RENOVATION OF 3 CLASSROOMS AND 16 ENVIROLOO TOILETS, STEEL PALISADE, BOREHOLE EQUIPPING AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL IN SEKHUKHUNE DISTRICT**

**for**

**LIMPOPO DEPARTMENT OF EDUCATION (LDOE),**

**LIMPOPO PROVINCE**

**FRAMEWORK CATEGORY A (7GB AND ABOVE)**

**Issued by:**

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

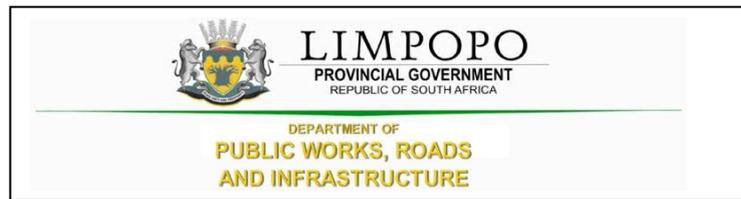
**Contact Person: General Queries**

Name : Mr NJ Motsopye,  
Tel No. : 015 284 7126  
Email : [motsopyen@dpw.limpopo.gov.za](mailto:motsopyen@dpw.limpopo.gov.za)

**Technical: Technical Queries**

Name : Mr K Modjadji  
Tel No. : 083 673 5436  
Email : [ModjadjiM@dpw.limpopo.gov.za](mailto:ModjadjiM@dpw.limpopo.gov.za)

**Name of the Bidder : .....**



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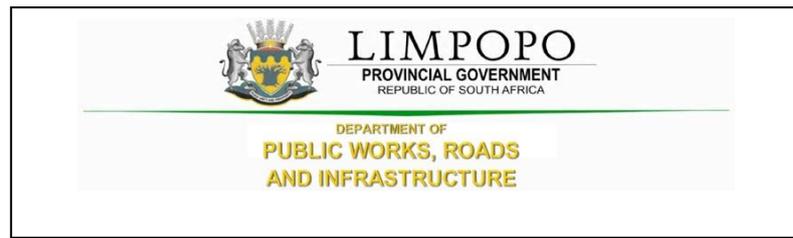
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## **PART T1: TENDERING PROCEDURE**

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## T1.1 Tender Notice and Invitation to Tender

The Limpopo Department of Public Works, Roads and Infrastructure invites tenderers from contractors appointed on the framework agreement on category A for **APPOINTMENT OF A CONTRACTOR FOR THE COMPLETION OF NUTRITION CENTRE, SMALL ADMINISTRATION BLOCK, LIBRARY AND COMPUTER CENTRE COMBO, 6 SEATER WATERBORNE TOILETS, GUARD HOUSE, RENOVATION OF 3 CLASSROOMS, 16 ENVIROLOO TOILETS AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL IN SEKHUKHUNE DISTRICT FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE)** for a period of 12 months. It is estimated that tenderers must have a CIDB contractor grading designation of **7 GB** or higher.

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

<b>Project Name</b>	APPOINTMENT OF A CONTRACTOR FOR THE COMPLETION OF NUTRITION CENTRE, SMALL ADMINISTRATION BLOCK, LIBRARY AND COMPUTER CENTRE COMBO, 6 SEATER WATERBORNE TOILETS, GUARD HOUSE, RENOVATION OF 3 CLASSROOMS, 16 ENVIROLOO TOILETS AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL IN SEKHUKHUNE DISTRICT FOR LIMPOPO DEPARTMENT OF EDUCATION (LDOE) FOR A PERIOD OF 12 MONTHS	
<b>Tender Number</b>	LDPWRI- B/20353	
<b>Tender documents availability</b>	Limpopo Department of Public Works, Roads and Infrastructure website	
<b>Address for submission of tenders</b>	DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE. Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699.	
<b>Closing date of the tender</b>	<b>As per Tender invite</b>	
<b>Closing time of the tender</b>	<b>As per Tender invite</b>	
<b>Compulsory briefing meeting</b> ( <i>Tenderers must sign the attendance register in the name of the tendering entity. Addenda (if any) will be issued only to those tendering entities appearing on the attendance register</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
	Meeting venue	<b>As per Tender invite</b>
	Date	<b>As per Tender invite</b>
	Time:	<b>As per Tender invite</b>
<b>Evaluation criteria</b>	<ol style="list-style-type: none"> <li>1. Compliance with mandatory or compulsory requirements</li> <li>2. Risk assessment on current projects</li> <li>3. Price</li> <li>4. Preference</li> </ol>	
<b>Mandatory or Compulsory Requirements</b> ( <i>failure to submit or comply with these requirements will lead to automatic disqualification</i> )	Only tenderers who are appointed on category A registered with the Construction Industry Development Board (CIDB) with designation of 7 GB or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations are eligible to have their tenders evaluated	
	Completed and signed Form of Offer	
	Priced Bills of Quantities	
	Record of addenda to tender documents	
	Proposed amendments and qualifications	
	Declaration on the status of Administration compliance	
	CIDB grading certificate (Valid CIDB)	
	Declaration of current projects	



## T1.2 Tender Data

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

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

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

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

**Stage 3 and 4:**

The procedure for final evaluation of responsive tenders is Method 2 (Financial offer and preference). The total number of tender evaluation points ( $T_{EV}$ ) shall be determined in accordance with the following formula.

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

- a)  $N_{FO}$  is the number of tender evaluation points awarded for the financial offer made. The score for financial offer is calculated using the following formula:

$$P = A * \left(1 - \frac{(P_o - P_m)}{P_m}\right)$$

Where:

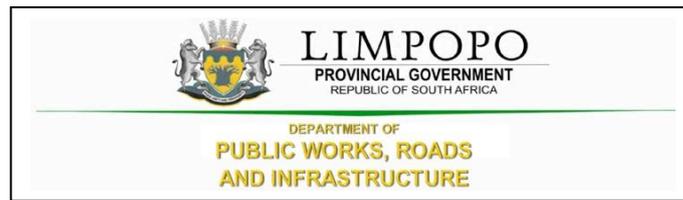
A is 80 since the estimated financial value of works inclusive of VAT is equals or is less than R 50,000,000.00.

P is the points awarded to the bid under consideration

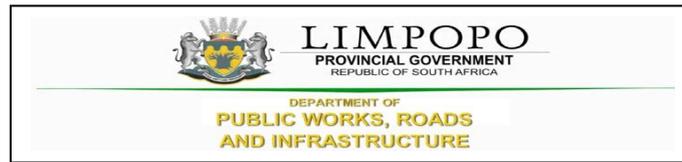
$P_m$  is the lowest Comparative bid price

$P_o$  is the comparative price under consideration

- b)  $N_P$  is the number of tender evaluation points awarded for preferences claimed in accordance with the Preferencing Schedule in 3.18



## **PART T2: RETURNABLE DOCUMENTS**



## T2.1 : LIST OF RETURNABLE DOCUMENTS

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

### **A -- MANDATORY REQUIREMENTS**

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

### **B – NON- MANDATORY REQUIREMENTS**

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

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

COMPLETION OF NEW FACILITIES, REFURBISHMENT AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL IN SEKHUKHUNE DISTRICT.

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

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

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

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

**C -- SPECIAL NOTES TO BIDDERS AND DEPARTMENTAL RIGHTS**

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

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

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

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

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

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

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

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

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

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

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

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

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

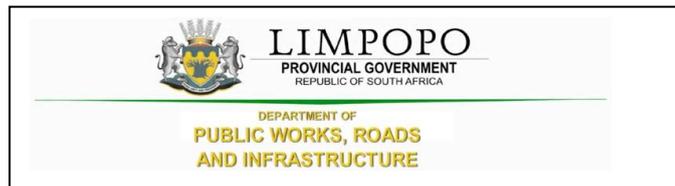
1.12 Quotations/Tenders received after the closing date and time will not be accepted for consideration.

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

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

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

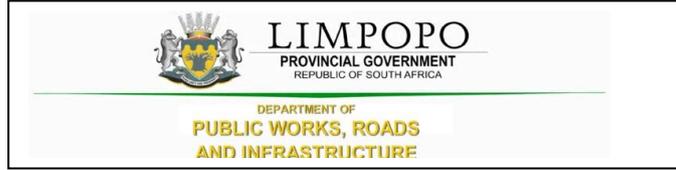
1.16 References to LDPWR&I must not be made in any literature, promotional material, and brochures or sales presentations without the express written consent of LDPWR&I



## T 2.2: RETURNABLE SCHEDULE

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

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## Declaration on the status of administrative compliance

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

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.....

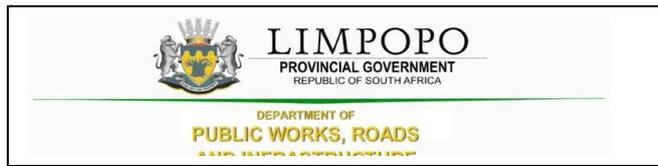
.....

.....

Signed ..... Date \_\_\_\_\_

Name ..... Position \_\_\_\_\_

*Enterprise* .....



## Record of Addenda to tender documents

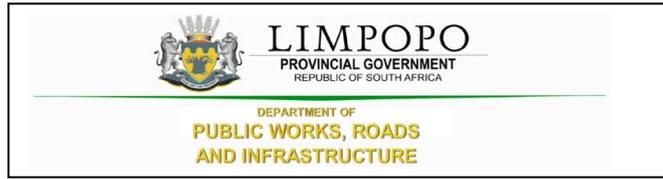
We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

Tenderer \_\_\_\_\_



### Proposed amendments and qualifications

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

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

Page	Clause or item	Proposal

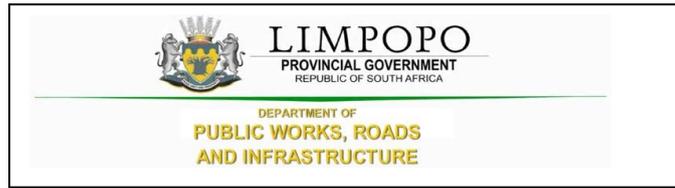
Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

Tenderer \_\_\_\_\_

COMPLETION OF NEW FACILITIES, REFURBISHMENT AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL IN SEKHUKHUNE DISTRICT.

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**SBD 1**

**PART A: INVITATION TO BID**

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

<b>BID NUMBER:</b>	LDPWRI-B/20353	<b>CLOSING DATE</b>	As per Tender Advert	<b>CLOSING TIME:</b>	As per Tender Advert
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**DESCRIPTION** **COMPLETION OF NEW FACILITIES, REFURBISHMENT AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL**

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

DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE.  
Physical address: Corner River and Blaauwberg Streets, Ladanna, 0699.

**BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO**

<b>CONTACT PERSON</b>	Mr. NJ Motsopye				
<b>TELEPHONE NUMBER</b>	0152847126	<b>E-MAIL ADDRESS</b>	motsopyen@dpw.limpopo.gov.za		
<b>CONTACT PERSON (TECHNICAL)</b>	Mr. K Modjadji				
<b>TELEPHONE NUMBER</b>	083 673 5436	<b>E-MAIL ADDRESS</b>	ModjadjiM@dpw.limpopo.gov.za		

**SUPPLIER INFORMATION**

<b>NAME OF BIDDER</b>					
<b>POSTAL ADDRESS</b>					
<b>STREET ADDRESS</b>					
<b>TELEPHONE NUMBER</b>	<b>CODE</b>		<b>NUMBER</b>		
<b>CELLPHONE NUMBER</b>					
<b>E-MAIL ADDRESS</b>					
<b>VAT REGISTRATION NUMBER</b>					
<b>SUPPLIER COMPLIANCE STATUS</b>	<b>TAX COMPLIANCE SYSTEM PIN:</b>		<b>OR</b>	<b>CENTRAL SUPPLIER DATABASE No:</b>	MAAA

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

**QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS**

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

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

## PART B: TERMS AND CONDITIONS FOR BIDDING

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

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

SIGNATURE OF BIDDER: .....

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

DATE: .....

## BIDDER'S DISCLOSURE

### 1. PURPOSE OF THE FORM

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

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

### 2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest<sup>2</sup> in the enterprise,

employed by the state?

**YES/NO**

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

Full Name	Identity Number	Name of State institution

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

2.2.1 If so, furnish particulars:

.....  
.....

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

CONTRACT No. LDPWRI-B/20353

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

2.3.1 If so, furnish particulars:

.....  
.....

**3 DECLARATION**

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting

<sup>3</sup> 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.

CONTRACT No. LDPWRI-B/20353

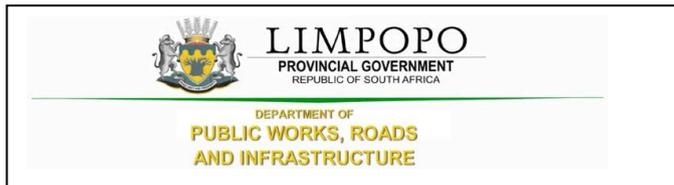
business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

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

.....  
Signature Date

.....  
Position Name of bidder



## SBD 6.1

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

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

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

#### 1. GENERAL CONDITIONS

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

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

#### 1.2 To be completed by the organ of state

*(delete whichever is not applicable for this tender).*

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

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

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

CONTRACT No. LDPWRI-B/20353

**1.4 To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	<b>POINTS</b>
<b>PRICE</b>	80
<b>SPECIFIC GOALS</b>	20
<b>Total points for Price and SPECIFIC GOALS</b>	<b>100</b>

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

**2. DEFINITIONS**

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

### 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

#### 3.1. POINTS AWARDED FOR PRICE

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

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

$$Ps = 80 \left( 1 - \frac{Pt - P_{min}}{P_{min}} \right) \text{ or } Ps = 90 \left( 1 - \frac{Pt - P_{min}}{P_{min}} \right)$$

Where

- Ps = Points scored for price of tender under consideration  
Pt = Price of tender under consideration  
Pmin = Price of lowest acceptable tender

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

##### 3.2.1. POINTS AWARDED FOR PRICE

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

$$Ps = 80 \left( 1 + \frac{Pt - P_{max}}{P_{max}} \right) \text{ or } Ps = 90 \left( 1 + \frac{Pt - P_{max}}{P_{max}} \right)$$

Where

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

### 4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

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

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

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

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

**DECLARATION WITH REGARD TO COMPANY/FIRM**

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

4.5. Company registration number: .....

4.6. TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

4.7. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

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

.....	
<b>SIGNATURE(S) OF TENDERER(S)</b>	
<b>SURNAME AND NAME:</b>	.....
<b>DATE:</b>	.....
<b>ADDRESS:</b>	.....
	.....
	.....
	.....



**DECLARATION OF CURRENT PROJECTS**

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

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

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

*Misrepresentation of facts will render your bid non-responsive.*

**Table 1 List of current projects executed by the bidder**

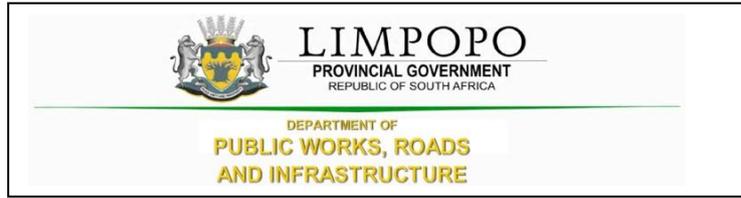
1. Do you have the current projects being executed                      Yes/No? (circle the correct answer)
2. Please note that it is compulsory to answer the question above and if the answer is yes, complete the table below. Failure by the service provider/bidder to answer the question above or complete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

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

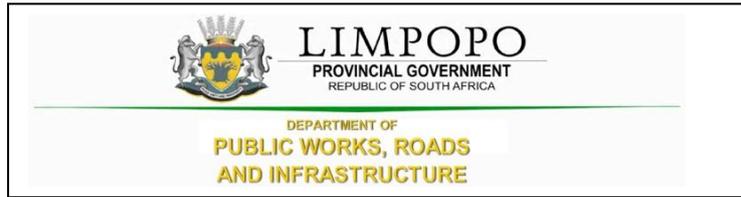

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

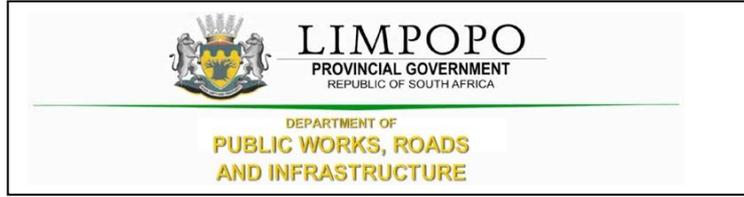
*Enterprise* \_\_\_\_\_



# THE CONTRACT



## **PART C1: AGREEMENT AND CONTRACT DATA**



**C1.1. FORM OF OFFER AND ACCEPTANCE**

**Offer**

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

**COMPLETION OF NEW FACILITIES, REFURBISHMENT AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL IN SEKHUKHUNE DISTRICT.**

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

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

**THE OFFERED TOTAL OF THE PRICE INCLUSIVE OF VALUE ADDED TAX IS (CONTRACT PRICE)**

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

.....

(in figures) R.....

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

Signature(s) .....

Name(s) .....

Capacity .....

**For the tenderer:** .....

**Name & signature of witness** ..... **Date** .....

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

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

The terms of the contract, are contained in:

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

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

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

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

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

## For the Employer

Signature .....

Name .....

Capacity .....

## Name and address of organization

## Signature and Name of Witness

Signature .....

Name .....

Capacity .....

# Schedule of Deviations

1 Subject .....  
Details .....  
.....  
.....  
.....

2 Subject .....  
Details .....  
.....  
.....  
.....

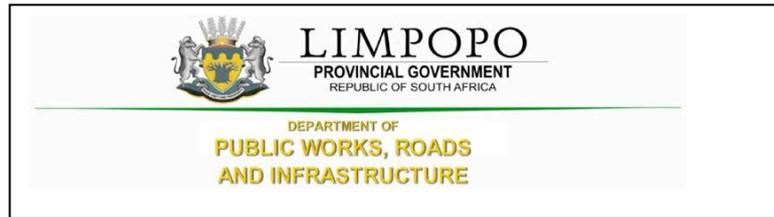
3 Subject .....  
Details .....  
.....  
.....  
.....

4 Subject .....  
Details .....  
.....  
.....  
.....

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

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

.....



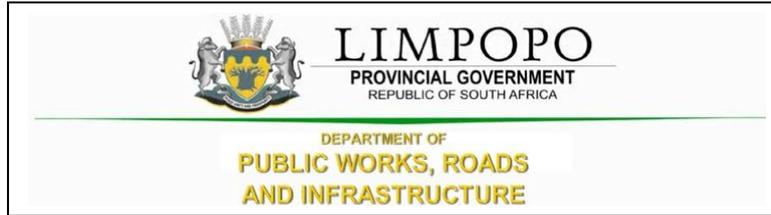
## C2.1 CONTRACT DATA

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

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

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

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



## PART C2: PRICING DATA

### C2.1 Pricing instruction

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



## **PART C2.2: BILLS OF QUANTITIES**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Item No	Quantity	Rate	Amount
<b><u>SECTION NO 1</u></b>			
<b><u>BILL NO. 1</u></b>			
<b><u>PRELIMINARIES</u></b>			
<b><u>PRELIMINARIES</u></b>			
All prices/rates to be net, excluding Value Added Tax			
<b><u>General</u></b>			
i) The agreement is to be the JBCC Series 2000 Principal Building Agreement (Edition 4.1) prepared by the Joint Building Contracts Committee, March 2005			
ii) The preliminaries are to be the JBCC Series 2000 Preliminaries prepared by the Joint Building Contracts Committee, March 2005 edition and shall be deemed to be incorporated herein			
iv) Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading			
iii) Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary			
v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")			
<b>Carried to Collection</b>			
Section No. 1 PRELIMINARIES Bill No. 1 PRELIMINARIES & GENERAL <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>			R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

- vi) If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time
- vii) Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"

**SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT**

**Definitions (A1)**

1 Definitions and interpretation (clause 1)

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

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

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

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

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

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

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

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

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

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

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

".....and in the **Contract Data**". at the end on the sentence ending with **agreement**

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 Guarantee**" is amended by replacing it with the following:

**"Construction guarantee"** means guarantee at call obtained by the **contractor** from an institution approved by the **employer** in terms of the **employer's** construction guarantee form as selected in the **schedule**

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 "**Corrupt Practice**" is added:

**"Corrupt Practice"** means the offering , giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution

Clause 1.1 Definition of "**Fraudulent Practice**" is added:

**"Fraudulent Practice"** means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer

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and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition.

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 the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

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

"**Principal Agent**" means the person or entity appointed by the **employer** and named in the **schedule**. In the event of a **principal agent** not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by a representative of the **employer** as named in the **schedule**.

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

**Security** means the form of security provided by the **employer** or **contractor**, as stated in the **schedule**, from which the **contractor** or **employer** may recover expense or loss

	Fixed	Item
2	Value Related	Item
3	Time Related	Item

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**Objective and Preparation (A2 - A14)**

4	Offer, acceptance and performance (clause 2)	Fixed	Item
5		Value Related	Item
6		Time Related	Item
7	Documents (clause 3)		
	Clause 3.2.1 is amended by replacing "14.1" with "14.0"		
	Clause 3.7 is amended by the addition of the following:		
	<b>The contractor</b> shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract <b>on the site</b> , to which <b>the employer, principal agent and agents</b> shall have access at all times.		
	Clause 3.10 is amended by replacing the second reference to " <b>principal agent</b> " with the word " <b>employer</b> "		
		Fixed	Item
8		Value Related	Item
9		Time Related	Item
10	Design responsibility (clause 4)		
		Fixed	Item
11		Value Related	Item
12		Time Related	Item
13	Employer's agents (clause 5)		
		Fixed	Item
14		Value Related	Item

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15		Time Related	Item	
16	Contractor's site representative (clause 6)			
		Fixed	Item	
17		Value Related	Item	
18		Time Related	Item	
19	Compliance with laws and regulations (clause 7)			
	<p>Note: A separate clause has been included in Section C: Specific Preliminaries of the <b>bills of quantities</b> for the <b>contractor</b> to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification</p>			
		Fixed	Item	
20		Value Related	Item	
21		Time Related	Item	
22	Works risk (clause 8)			
		Fixed	Item	
23		Value Related	Item	
24		Time Related	Item	
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25 Indemnities (clause 9)

Clause 9.0 is amended by adding Clause 9.1.4:

The **contractor** indemnifies and holds harmless the **employer** against all liability, losses, claims, damages, penalties, actions, proceedings or judgments (collectively referred to as "Losses") arising from any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the **contractor**, but such indemnity shall not cover any use of the equipment of part thereof otherwise than in accordance with the provisions of the specification. All payments and royalties payable in one sum or by instalments or otherwise shall be included by the **contractor** in the price and shall be paid by him to those to whom they may be payable. The **contractor** shall reimburse the **employer** for all legal and other costs and expenses, including without limitation attorney's fees on attorney-client scale incurred by the **employer** in connection with investigation, defending or settling any Losses in connection with pending or threatening litigation in which the **employer** is a party.

Fixed

Item

26 Value Related

Item

27 Time Related

Item

28 Works insurances (clause 10)

Clause 10.0 is amended by the addition of the following clauses

**10.5 Damage to the Works**

(a) Without in any way limiting the **contractor's** obligations in terms of the contract, the **contractor** shall bear the full risk of damage to and/or destruction of the **works** by whatever cause during construction of the **works** and hereby indemnifies and holds harmless the **employer** against any such damage. The **contractor** shall take such precautions and

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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 the **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

**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 and hereby indemnifies the **employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any 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

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same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **contractor** or to deduct the same from amounts due to the **contractor**

- (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 obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed
- (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.

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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

**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 **contractor's** 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 **contractor's** default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any

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amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

	Fixed	Item	
29	Value Related	Item	
30	Time Related	Item	
31	Liability insurances (clause 11)		
	Fixed	Item	
32	Value Related	Item	
33	Time Related	Item	
34	Effecting insurances (clause 12)		
	Fixed	Item	
35	Value Related	Item	
36	Time Related	Item	
37	No clause (clause 13)	Item	
38	Security (clause 14)		
	Clause 14.0 is amended by:-		
	i) The addition of the following clauses:-		
	Clause 14.7.3		
	"Hand the site over to the <b>contractor</b> subject to agreement that shall be made between the <b>employer</b> and the <b>contractor</b> "		
	Fixed	Item	

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39	Value Related	Item	
40	Time Related	Item	
	<b><u>Execution (A15 - A23)</u></b>		
41	Preparation for and execution of the works (clause 15)		
	Clause 15.1.1 is amended by replacing it with:		
	No clause		
	Clause 15.1.2 is amended by replacing it with:		
	The <b>security</b> selected in terms of 14.0		
	Clause 15.1 is amended by the addition of the following clause:		
	15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) or latest edition, revision and amendments, within twenty-one (21) <b>calendar days</b> of <b>commencement date</b>		
	Clause 15.2.1 is amended by replacing it with the following clause:		
	Give the <b>contractor</b> possession of the <b>site</b> within ten (10) <b>working days</b> of the <b>contractor</b> complying with the terms of 15.1		
	Fixed	Item	
42	Value Related	Item	
43	Time Related	Item	
44	Access to the works (clause 16)		
	Fixed	Item	
45	Value Related	Item	
46	Time Related	Item	
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47	Contract instructions (clause 17)		
		Fixed	Item
48		Value Related	Item
49		Time Related	Item
50	Setting out of the works (clause 18)		
	<i>The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachments</i>		
	<i>The contractor shall perform tolerance control checks regularly throughout the contract period and report on this at regular interval to the Principal Agent in the approved format. Should the contractor fail to comply with this requirement to the satisfaction of the the Principal Agent, progressively as the structure is being constructed, the Employer will commission a Registered Land Surveyor to do so on the Contractor's behalf and at the Contractor's Expense.</i>		
		Fixed	Item
51		Value Related	Item
52		Time Related	Item
53	Assignment (clause 19)		
		Fixed	Item
54		Value Related	Item
55		Time Related	Item

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56	Nominated sub-contractors (clause 20)		
	Clause 20.0		
	Clause 20.1.3 is amended by replacing it with the following:		
	No Clause		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
57	Selected sub-contractors (clause 21)		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
58	Employer's direct contractors (clause 22)		
	<b><i>The Contractor shall allow the direct contractors and employers agents access to the work, allocate reasonable space in the building for storage of their materials, tools and equipment, all to the satisfaction of the Principal Agent. The contractor shall also allow the direct contractors, etc. free of charge, use of their ablution facilities and water and power supply to the and shall in no way hinder or prevent the execution of their works. Attendance may be priced against the relevant specified items in the bills of quantities.</i></b>		
	Fixed	Item	
	Value Related	Item	
	Time Related	Item	
59	Contractor's domestic sub-contractors (Clause 23)		
	Fixed	Item	

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60		Value Related	Item
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61		Time Related	Item
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**COMPLETION**

**Completion (A24-A30)**

62	Practical completion (clause 24)	Fixed	Item
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63		Value Related	Item
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64		Time Related	Item
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65	Works completion (clause 25)	Fixed	Item
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66		Value Related	Item
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67		Time Related	Item
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68	Final completion (clause 26)	Fixed	Item
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69		Value Related	Item
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70		Time Related	Item
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71	Latent defects liability period (clause 27)	Fixed	Item
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72		Value Related	Item
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73		Time Related	Item
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74	Sectional completion (clause 28)	Fixed	Item
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75	Value Related	Item
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76	Time Related	Item
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77	Revision of date of practical completion (clause 29)	
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Clause 29.1.1 shall be deemed to be omitted and replaced by the following:

Inclement weather shall be defined as weather in excess of the average rainfall (volume and period) for each calendar month over the past ten (10) years as recorded by the nearest commonly recognised weather bureau in the region of the project

It shall be deemed that the contractor has adequately allowed in his programme and tendered rates for expenses which might result from delays due to average or below rainfall as described above

Add Clause 29.9 as follows:

Revision to the date for **practical completion** shall only be considered when work on the critical path of the agreed programme for the works is delayed.”

Add Clause 29.10 as follows:

Clause 29.10 - Acceleration

Clause 29.10.1  
Irrespective of whether or not the **principal agent** rules that the **contractor** is entitled to an extension of time or a revision of the date for **practical completion**, the **principal agent** shall nevertheless, at any time, be entitled to instruct the **contractor** in writing to accelerate the progress of the remaining **works** to ensure that the **works** are completed by the original date for **practical completion** or revised date as the case may be.

Clause 29.10.2  
Upon receipt of such instruction, the **contractor** shall take all necessary steps to ensure that the **works** are completed timeously including the

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provision by him of additional resources, plant, manpower, etc and the working overtime or additional overtime beyond that contemplated at the time of tender (at all times adhering to the regulations and requirements of all authorities) and by all other adequate and proper means and methods. The **contractor** shall prove that such steps are being taken if called upon to do so.

Clause 29.10.3

The **contractor's** entitlement to compensation arising out of or in respect of any revision to the date for **practical completion** that may have been granted by the **principal agent** or alternatively where the **principal agent** has instructed the **contractor** to accelerate, shall be adjudicated strictly in terms of clause 32.

	Fixed	Item
78	Value Related	Item
79	Time Related	Item
80	Penalty for non-completion (clause 30)	
	Clause 30 is amended by replacing reference to 36.3 at end of sentence with 36.0	
	Fixed	Item
81	Value Related	Item
82	Time Related	Item

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**Payment (A31 - A35)**

83	Interim payment to the contractor (clause 31)  Clause 31.9 is amended by replacing "seven (7) <b>calender</b> days" with "thirty (30) <b>calender</b> days" and by deleting the words "subject to the <b>contractor</b> giving the <b>employer</b> a tax invoice for the amount due  Clause 31.12 is amended by deleting the following  Payment shall be subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due	Fixed	Item
84		Value Related	Item
85		Time Related	Item
86	Adjustment to the contract value (clause 32)  Clause 32.0  Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:  "due to no fault of the <b>contractor</b> "	Fixed	Item
87		Value Related	Item
88		Time Related	Item
89	Recovery of expense and loss (clause 33)	Fixed	Item
90		Value Related	Item
91		Time Related	Item

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92	Final account and final payment (clause 34)  Clause 34.0  Clause 34.2 is amended by inserting # next to 34.2  Clause 34.13 is amended by replacing "seven (7) <b>calendar days</b> " with "thirty (30) <b>calendar days</b> " and deleting the words "subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due"		
	Fixed		Item
93		Value Related	Item
94		Time Related	Item
95	Payment to other parties (clause 35)		
		Fixed	Item
96		Value Related	Item
97		Time Related	Item

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**Cancellation (A36-A39)**

98 Cancellation by employer - contractor's default (clause 36)

Clause 36.1 is amended by the additions of the following clauses:

36.1.3 refuses or neglects to comply strictly with any of the conditions of contract

36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

36.1.5 in the judgement of the **employer**, has engaged in **corrupt** or **fraudulent practices** in competing for or in executing the contract

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

Item

99 Value Related

Item

100 Time Related

Item

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101 Cancellation by employer - loss and damage (clause 37)

Clause 37.3.5 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"

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

Item

102 Value Related

Item

103 Time Related

Item

104 Cancellation by contractor - employer's default (clause 38)

Clause 38.5.4 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"

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

Item

105 Value Related

Item

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106		Time Related	Item	
107	<p>Cancellation - cessation of the works (clause 39)</p> <p>Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one-hundred and twenty (120) <b>working days</b> of completion of such report"</p>			
		Fixed	Item	
108		Value Related	Item	
109		Time Related	Item	
	<b><u>Dispute Settlement (A40)</u></b>			
110	<p>Disputes Settlement (clause 40)</p> <p>Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"</p> <p>Clause 40.6 is amended by removing the reference to: No clause</p> <p>Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:  Whether or not mediation resolves the dispute, the parties shall bear their own cost concerning the mediation and equally share the costs of the mediator and related costs.</p>			
		Fixed	Item	
111		Value Related	Item	
112		Time Related	Item	
	<b><u>State Provision (A41)</u></b>			
113	State Substitutions (clause 41)			
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Delete in the Substitute Provisions (41.0 State Clauses) clauses 40.2.1, 40.2.2, 40.3, 40.4, 40.5 and 40.6 and replace with the following:

40.1 Should any dispute between the **employer**, his **agents** or **principal agent** on the one hand and the contractors on the other arise out of this **agreement**, such dispute shall be referred to adjudication.

40.2 Adjudication shall be conducted in accordance with the edition of the JBCC Rules for Adjudication current at the time when the dispute is declared. The party, which raises the dispute, shall select three adjudicators from the panel of adjudicators published by the South African Institution of Civil Engineering or Association of Arbitrators (Southern Africa), determine their hourly fees and confirm that these adjudicators are available to adjudicate the dispute in question. The other party shall then select within 7 days one of the three nominated adjudicators, failing which the chairman for the time being of the Association of Arbitrators (Southern Africa) shall nominate an adjudicator. The **adjudicator** shall be appointed in terms of the Adjudicators Agreement set out in C1.4 .

40.3 If provided in the **schedule**, a dispute shall be finally settled by a single Arbitrator to be agreed on between the parties or, failing such agreement within 28 days after referring the dispute to Arbitration, an Arbitrator nominated by the chairman for the time being of the Association of Arbitrators (Southern Africa). Any such reference shall be deemed to be a submission to the arbitration of a single arbitrator in terms of the Arbitration Act (Act No 42 of 1965, as amended), or any legislation passed in substitution therefore. In the absence of any other agreed procedure, the arbitration shall take place in accordance with the Rules for the Conduct of Arbitrations issued by the Association of Arbitrators (Southern Africa) which are current at the time of the referral to arbitration. The Arbitrator shall, in his award, set out the facts and the provisions of the contract on which his award is based.

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	40.4 If the <b>schedule</b> provides for court proceedings to finally resolve disputes, disputes shall be determined by court proceedings.			
		Fixed	Item	
114		Value Related	Item	
115		Time Related	Item	
	<b><u>Contract Variables (A41)</u></b>			
116	The Schedule (clause 42)			
	<i>Tenderers are referred to the Contract Data and Notes to Tenderes for variable pertaining to this contract</i>			
		Fixed	Item	
117		Value Related	Item	
118		Time Related	Item	
	<b><u>SECTION B: PRELIMINARIES</u></b>			
	<b><u>Definition and interpretation (B1)</u></b>			
119	Definition and interpretation			
	See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section			
		Fixed	Item	
120		Value Related	Item	
121		Time Related	Item	
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<b><u>Documents (B2)</u></b>				
122	Checking of documents (B2.1)			
	<b><i>These bills of quantities:</i></b>			
	<b><i>(1) contain pages and annexes as indexed, and;</i></b>			
	<b><i>(2) are in multiple procurement format, i.e. all trades are fully measured with minor budgetary allowances</i></b>			
	<b><i>Items in these bills of quantities are to be read and priced in conjunction with and the descriptions regarded as amplified by the Model Preambles for Trades, 2008 edition, as recommended and published by the Association of South African Quantity Surveyors and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained</i></b>			
		Fixed	Item	
123		Value Related	Item	
124		Time Related	Item	
125	Provisional bills of quantities (B2.2)			
		Fixed	Item	
126		Value Related	Item	
127		Time Related	Item	
128	Availability of construction documentation (B2.3)			
	<b><i>The minor budgetary allowances included in this document will be separately procured, based on multiple procurement of selected sub-contractors during the construction period</i></b>			
		Fixed	Item	
129		Value Related	Item	
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130		Time Related	Item	
131	Interests of agents (B2.4)			
		Fixed	Item	
132		Value Related	Item	
133		Time Related	Item	
134	Priced documents (B2.5)			
		Fixed	Item	
135		Value Related	Item	
136		Time Related	Item	
137	Tender submission (B2.6)			
	<b><i>Notwithstanding anything contained in this clause tenders shall be valid for a period of ninety (90) days from the closing date of tenders</i></b>			
	<b><i>Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance C1.1"</i></b>			
		Fixed	Item	
138		Value Related	Item	
139		Time Related	Item	
	<b><u>The site (B3)</u></b>			
140	Defined works area (B3.1)			
		Fixed	Item	
141		Value Related	Item	
142		Time Related	Item	
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143	Geotechnical investigation (B3.2)			
	Fixed		Item	
144		Value Related	Item	
145		Time Related	Item	
146	Inspection of the site (B3.3)			
	<i><b>Tenderers are instructed to familiarise themselves before submission of their tender with regard to the relevant local site conditions, site accessibility, the nature of operations required, availability of labour and any conditions pertaining thereto, together with conditions relating to unloading, carting and storage of materials, equipment and tools required for the works.</b></i>			
	<i><b>No claims for extras arising from the contractor having failed to comply with this clause will be entertained</b></i>			
		Fixed	Item	
147		Value Related	Item	
148		Time Related	Item	
149	Existing premises occupied (B3.4)			
		Fixed	Item	
150		Value Related	Item	
151		Time Related	Item	
152	Previous work - dimensional accuracy (B3.5)			
	<i><b>Work executed under a previous contract and the extent thereof will be pointed out to the contractor by the principal agent on handing over of the site</b></i>			
		Fixed	Item	
153		Value Related	Item	
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154		Time Related	Item	
155	Previous work - defects (B3.6)			
		Fixed	Item	
156		Value Related	Item	
157		Time Related	Item	
158	Services - known (B3.7)			
		Fixed	Item	
159		Value Related	Item	
160		Time Related	Item	
161	Services - unknown (B3.8)			
		Fixed	Item	
162		Value Related	Item	
163		Time Related	Item	
164	Protection of trees, etc (B3.9)			
		Fixed	Item	
165		Value Related	Item	
166		Time Related	Item	
167	Articles of value (B3.10)			
		Fixed	Item	
168		Value Related	Item	
169		Time Related	Item	
170	Inspection of adjoining properties, etc (B3.11)			
		Fixed	Item	
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171		Value Related	Item	
172		Time Related	Item	
	<b><u>Management of contract (B4)</u></b>			
173	Management of the works (B4.1)			
		Fixed	Item	
174		Value Related	Item	
175		Time Related	Item	
176	Programming for the works (B4.2)			
	<p>Clause B4.2 is hereby amended by the addition of the following:</p> <p>Programme:</p> <p>The contractor and the principal agent shall agree to a Contract Programme for the control of the Works.</p> <p>The contractor shall submit a draft of the Contract Programme and method statement to the principal agent for approval together with the tender.</p> <p>The contractor shall ensure that the contract programme:</p> <ol style="list-style-type: none"> <li>1. Shall be prepared and drawn up to comply in all respects with the requirements of this Agreement.</li> <li>2. shall be drawn up using logic developed during the tender period and complies with the planning requirements of the Client.</li> <li>3. shall be in accordance with the dates given herein for possession and practical completion; and</li> <li>4. shall be in sufficient and approved detail to ensure effective control of the work, including all items necessary to enable calculations to be made for the distribution of finance during the cashflow analysis.</li> <li>5. shall be accompanied by a full written method</li> </ol>			
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statement

The principal agent shall examine and comment on the contract programme and method statement within two weeks of its submission.

Following on these comments the contractor shall amend the contract programme and method statement as may be necessary and submit the final contract programme and method statement to the principal agent for approval within a further two weeks thereafter.

The contract programme shall be processed by computer and be presented to the principal agent in the form of logic charts and bar charts in such a way as to determine the critical path and the float on non-critical activities. All supporting printouts must be available to the principal agent on demand.

The acceptance by the principal agent of the contract programme, or any revision thereof, does not necessarily sanction the accuracy of validity of the network logic, the correctness of individual activities in terms of description or duration, the comprehensiveness of networks or the discrepancies between drawings and any other documents presented by the contractor, and in no way relieves the responsibility of the contractor to comply with the requirements of the Agreement.

No policy decisions other than the planning requirements, procedures and policies provided, will be enforced on the contractor regarding construction of the project and the contractor shall be responsible at all times for ensuring the accuracy, validity and reasonableness of programming information.

Documentation will not be available in complete detail at the date of award of the contract. Non-availability of information will not be deemed an excuse for non-presentation of programmes. In the event of inadequate information, the contractor shall estimate the predicted time applications on available information and quality the submission accordingly.

Development of the contract programme and method statement

Within two weeks of award of the contract, the contractor shall submit an updated contract programme

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and written method statement which shall include the latest information in sufficient detail to permit comprehensive monitoring.

Progress of the works will be monitored by the principal agent. The contractor shall liaise with the principal agent in order to provide whatever information is required to facilitate such monitoring.

**Revisions to the contract programme**

Revisions to the contract programme may be introduced periodically by the contractor subject to compliance with the contract completion and handover dates.

Providing the required consultation between the relevant parties has highlighted the implications of the required changes, the programming strategy on the project may be changed and the changes noted and specified on logic charts delivered to the principal agent. The changes to the programme will be recorded as firm and binding once the principal agent has sanctioned the said changes.

A revision to the programme will not invalidate the contractual completion dates and applications for extensions of time will be processed by the principal agent in accordance with the conditions of contract.

Should the contractor fail to submit a request for revision to the construction programme, progress monitoring shall be based on the latest revised programme sanctioned by the principal agent.

The contractor shall make all his necessary revisions on the approved network sheets clearly marking, inter-alia, the logic changes and duration changes. These will then be processed by the necessary parties and then approved in the normal manner.

**Progress Monitoring**

The contractor shall provide regular progress reports showing actual and expected progress against the latest contract programme. Progress reports shall be submitted at each site progress meeting and shall outline the progress against key target dates and deviation which has occurred against the most recently

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updated control programme due to the progress reflected in the as-built construction programme.

The status of each activity must also be reported as follows:

Target - If the activity is not complete, the latest predicted completion date shall be supplied.

Start - If the activity has commenced, the actual date shall be supplied.

Finish - If the activity is complete, the actual completion date shall be supplied.

Problems which may occur during execution of the contract must be specifically identified in progress reports under a separate section of the contractor's report.

Should problems occur during the execution of the contract or the scope of work be increased or decreased, the contractor may be requested to increase the extent or the detail of the programme.

The principal agent may recommend action to be taken by the contractor, including the revision of resource levels, but this information will not be binding on the contractor unless the recommendations are enforced in terms of the conditions of contract by the principal agent and will in no way relieve the contractor's responsibility to comply with the requirements of the Agreement.

**Extension of time**

Any extension of time which is granted by the principal agent will be annotated to affect selected activities in the programme and the associated activities will be incorporated by revisions to the programme by the contractor. Should the additional activities or the extension of time on existing activities fall on a non-critical area of the programme, extension will be limited to the activities affected by the said additional activities or extensions and the contract dates shall not be affected. If, however, the additional activities fall on the critical path, the principal agent shall take this into account when granting any extension of time in terms of the conditions of contract.

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The contractor agrees that the contract completion date (i.e. the date for practical completion) has been stipulated in the contract for the benefit of the employer, so that, without derogating from the generality of the foregoing principle it is provide that:

1. The contractor shall not be entitled to deliver the site and the works to the employer prior to the contract completion date and
2. Should there for any reason be any float period indicated in the contract programme prior to the contractual completion date then this float period shall be utilized to absorb any delays or extensions of time without affecting the contract completion date.
3. The contractor shall, at all times, ensure that, notwithstanding the approval or sanctioning, reviewing or inspection of a programme or any revision of a programme by the principal agent in the foregoing terms, practical completion and completion of the works shall take place strictly in accordance with this Agreement.

A defective or faulty programme, even if so sanctioned, approved, reviewed or inspected by the principal agent, shall therefore not constitute a cause for granting an extension of time for completion of the works or for entitling the contractor to the payment by the employer in terms of the contract of any loss, compensation or damage whatsoever.

The contractor acknowledges that the principal agent's foregoing participation in the approval of development of, revisions to and updating of the Contract Programme shall take place in consultation with the principal agent. The contractor shall therefore provide the principal agent with such co-operation and/or information and/or access as they may reasonably require for such purposes.

	Fixed	Item
177	Value Related	Item
178	Time Related	Item

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179	Progress meetings (B4.3)		
		Fixed	Item
180		Value Related	Item
181		Time Related	Item
182	Technical meetings (B4.4)		
		Fixed	Item
183		Value Related	Item
184		Time Related	Item
185	Labour and plant records (B4.5)		
		Fixed	Item
186		Value Related	Item
187		Time Related	Item
	<b><u>Samples, shop drawings and manufacturer's instructions (B5)</u></b>		
188	Samples of materials (B5.1)		
		Fixed	Item
189		Value Related	Item
190		Time Related	Item
191	Workmanship samples (B5.2)		
		Fixed	Item
192		Value Related	Item
193		Time Related	Item

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194	Shop drawings (B5.3)		
		Fixed	Item
195		Value Related	Item
196		Time Related	Item
197	Compliance with manufacturer's instructions (B5.4)		
		Fixed	Item
198		Value Related	Item
199		Time Related	Item
	<b><u>Temporary works and plant (B6)</u></b>		
200	Deposits and fees (B6.1)		
		Fixed	Item
201		Value Related	Item
202		Time Related	Item
203	Enclosure of the works (B6.2)		
		Fixed	Item
204		Value Related	Item
205		Time Related	Item
206	Advertising (B6.3)		
		Fixed	Item
207		Value Related	Item
208		Time Related	Item
209	Plant, equipment, sheds and offices (B6.4)		
		Fixed	Item

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210		Value Related	Item	
211		Time Related	Item	
212	Main notice board (B6.5)			
		Fixed	Item	
213		Value Related	Item	
214		Time Related	Item	
215	Subcontractors notice board (B6.6)			
		Fixed	Item	
216		Value Related	Item	
217		Time Related	Item	
	<b><u>Temporary services (B7)</u></b>			
218	Location (B7.1)			
		Fixed	Item	
219		Value Related	Item	
220		Time Related	Item	
221	Water (B7.2)			
		Fixed	Item	
222		Value Related	Item	
223		Time Related	Item	
224	Electricity (B7.3)			
		Fixed	Item	
225		Value Related	Item	
226		Time Related	Item	
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227	Telecommunication facilities (B7.4)		
		Fixed	Item
228		Value Related	Item
229		Time Related	Item
230	Ablution facilities (B7.5)		
		Fixed	Item
231		Value Related	Item
232		Time Related	Item
	<b><u>Prime cost amounts (B8)</u></b>		
233	Responsibility for prime cost amounts (B8.1)		
		Fixed	Item
234		Value Related	Item
235		Time Related	Item
	<b><u>Attendance on nominated and selected subcontractors (B9)</u></b>		
236	General attendance (B9.1)		
	The schedule rates providing for attendance on <b>nominated subcontractors</b> and other <b>contractors</b> , will be adjusted only if the scope of the work has changed		
		Fixed	Item
237		Value Related	Item
238		Time Related	Item
239	Special attendance (B9.2)		
		Fixed	Item
240		Value Related	Item

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241	Time Related	Item	
242	Commissioning - Fuel, water and electricity (B9.3)		
	Fixed	Item	
243	Value Related	Item	
244	Time Related	Item	
	<b>Financial aspects (B10)</b>		
245	Statutory taxes, duties and levies (B10.1)		
	<i>Provision is made in the summary of these bills of quantities for the inclusion of Value Added Tax (VAT)</i>		
	Fixed	Item	
246	Value Related	Item	
247	Time Related	Item	
248	Payment of preliminaries (B10.2)		
	Fixed	Item	
249	Value Related	Item	
250	Time Related	Item	
251	Adjustment of preliminaries (B10.3)		
	Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) <b>working days</b> of taking possession of the <b>site</b> " with "when submitting his priced <b>bills of quantities</b> "		
	Fixed	Item	
252	Value Related	Item	
253	Time Related	Item	
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254	Payment certificate cash flow (B10.4)		
		Fixed	Item
255		Value Related	Item
256		Time Related	Item
	<b><u>General (B11)</u></b>		
257	Protection of works (B11.1)		
		Fixed	Item
258		Value Related	Item
259		Time Related	Item
260	Protection/isolation of existing/sectionally occupied works(B11.2)		
		Fixed	Item
261		Value Related	Item
262		Time Related	Item
263	Site security (B11.3)		
		Fixed	Item
264		Value Related	Item
265		Time Related	Item
266	Notice before covering work (B11.4)		
		Fixed	Item
267		Value Related	Item
268		Time Related	Item

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269	Disturbance (B11.5)		
		Fixed	Item
270		Value Related	Item
271		Time Related	Item
272	Enviromental disturbance (B11.6)		
		Fixed	Item
273		Time Related	Item
274		Value Related	Item
275	Works cleaning and clearing (B11.7)		
		Fixed	Item
276		Value Related	Item
277		Time Related	Item
278	Vermin (B11.8)		
		Fixed	Item
279		Value Related	Item
280		Time Related	Item
281	Overhand work (B11.9)		
		Fixed	Item
282		Value Related	Item
283		Time Related	Item
284	Instruction manuals and guarantees (B11.10)		
		Fixed	Item
285		Value Related	Item

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286		Time Related	Item	
287	As built information (B11.11)			
		Fixed	Item	
288		Value Related	Item	
289		Time Related	Item	
290	Tenant installations (B11.12)			
		Fixed	Item	
291		Value Related	Item	
292		Time Related	Item	
	<b><u>Schedule of variables (B12)</u></b>			
293	Pre-tender information (B12.1)			
	This <b>schedule</b> 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 <b>Preliminaries</b> .			
		Fixed	Item	
294		Value Related	Item	
295		Time Related	Item	
	<b>12.1.1 Provisional bills of quantities (B12.1.1)</b>			
	The quantities are provisional:			
		<b>Yes</b>		
	<b>12.1.2 Availability of construction documentation (B12.1.2)</b>			
	Construction documentation is complete:			
		<b>Yes</b>		
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12.1.3 Interest of agents (B12.1.3) **No**

12.1.4 Defined works area (B12.1.4)  
*The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent on handing over of the site*

12.1.5 Geotechnical investigation (B12.1.5)  
The geotechnical report is available for viewing at the offices of the Principal Agent **Yes**

12.1.6 Existing premises occupied (B12.1.6)  
[3.4] Specific requirements:  
The contractor shall execute the works with as little noise and disturbance as possible

12.1.6 Existing premises occupied  
[3.4] Specific requirements:  
The contractor shall execute the works with as little noise and disturbance as possible

12.1.7 Previous work - Dimensional accuracy (B12.1.7)  
[3.5] Details:  
No additional details **No**

12.1.8 Previous work - defects  
[3.6] Details:  
No additional details

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12.1.9 Services - known (B12.1.9)

***Existing services and points of connection are shown on the site plan and/or will be pointed out on site by the principal agent***

12.1.10 ***Protection of trees***

[3.9] Specific requirements:  
No trees to be damaged or removed except those specifically designated in writing by the Architect

12.1.11 ***Inspection of adjoining properties***

[3.11] Specific requirements:  
None

12.1.12 ***Enclosure of the works***

[6.2} Specific requirements:  
Areas where work is taking place shall at all times be blocked off by appropriate means

12.1.13 ***Offices***

[6.4.3] Specific requirements:  
The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.

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**12.1.14 Main notice board**

[6.5] Specific requirements:  
The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering.

**12.1.15 Subcontractors' notice board**

[6.6] A notice board is required (yes/no)  
NO  
Specific requirements:

**12.1.16 Water**

[7.2] Option A (by contractor) (yes/no)  
YES

**12.1.17 Electricity**

[7.3] Option A (by contractor) (yes/no)  
YES

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**12.1.18 Telecommunications**

[7.4] Telephone (yes/no)  
YES

Facsimile (yes/no)  
YES

E-mail (yes/no)  
YES

**12.1.19 Ablution facilities**

[7.5] Option A (by **contractor**) (yes/no)  
YES

Option B (by **employer**) (yes/no)  
NO

**12.1.20 Protection of existing/sectionally occupied works**

[11.2] Protection is required (yes/no)  
YES

**12.1.21 Special attendance**

The contractor must obtain information from all subcontractors at tender stage regarding special attendance that might be required and make allowance for each and every subcontract that requires special attendance

[9.2] **Subcontractor (1) Details:**

**Subcontractor (2) Details:**

**Subcontractor (3) Details:**

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12.1.22 **Protection of the works**

[11.1] Specific requirements:  
All work that requires protection during construction must be adequately protected up to practical completion by the **contractor**

12.1.23 **Disturbance**

[11.5] Specific requirements:  
The **contractor** shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the **works** all necessary temporary dust screens all to the satisfaction of the **principal agent**

12.1.24 **Environmental disturbance**

[11.6] Specific requirements:  
None

296 Post-tender information (B12.2)

**All post-tender information for this section will be determined once tender is awarded**

Fixed

Item

297 Value Related

Item

298 Time Related

Item

12.2.1 **Payment of preliminaries**

[10.2] Option A (prorated) (yes/no)  
YES

NO Option B (calculated) (yes/no)

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	<p>12.2.2 <b>Adjustment of preliminaries</b> [10.3] Option A (three categories) (yes/no) YES</p>			
	Option B (detailed breakdown) (yes/no) NO			
	12.2.3 <b>Additional agreed preliminaries items</b>			
	Details: None			
299	Other post tender information (B12.3)			
	<b>All post-tender information for this section will be determined once tender is awarded</b>			
		Fixed	Item	
300		Value Related	Item	
301		Time Related	Item	
	<b><u>SECTION C: SPECIFIC PRELIMINARIES</u></b>			
	<b>Section C</b> contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item			
302	<b>Clause C1 - Contract drawings</b>			
	The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the <b>works</b> and the manner in which they are to be executed			
	Should any part of the drawings not be clearly understood by the the tenderer he shall, before submitting his tender, obtain clarification in writing from the <b>principal agent</b>			
		Fixed	Item	
303		Value Related	Item	
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304	Time Related	Item	
305	<b>Clause C2 - General Preambles</b>		
	The "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the trades is deemed to be included herein and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.		
	Fixed	Item	
306	Value Related	Item	
307	Time Related	Item	
308	<b>Clause C3 - Site instructions</b>		
	All site instructions issued on site shall be recorded in writing within seven (7) calendar days in site instruction book (A4 size and triplicate carbon format), which is to be provided and maintained by the contractor. The said site instruction book shall be kept on site at all times for the exclusive use of recording site instructions only		
	Site instructions may be issued by the architect or any of the consultants only. Copies of the site instructions are to be submitted to the architect and quantity surveyor within seven (7) calendar days of such recording in the site instruction book		
	Fixed	Item	
309	Value Related	Item	
310	Time Related	Item	

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311 **Clause C4 - Trade Names**

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

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

Fixed

Item

312

Value Related

Item

313

Time Related

Item

314 **Clause C5 - Overtime**

Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorized and indicated in writing, prior to the execution thereof, that costs for such overtime will to be borne by the employer

Fixed

Item

315

Value Related

Item

316

Time Related

Item

317 **Clause C6 - As-built drawings**

The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records

Fixed

Item

318

Value Related

Item

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319	Time Related	Item	
320	<b>Clause C5 - Labour record</b>		
	At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day		
	Fixed	Item	
321	Value Related	Item	
322	Time Related	Item	
323	<b>Clause C6 - Plant record</b>		
	At the end of each calendar week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works		
	Fixed	Item	
324	Value Related	Item	
325	Time Related	Item	
326	<b>Clause C7 - Non-cession of monies</b>		
	The contractor shall not cede nor assign his rights or claims to any monies due or to become due to him under this contract		
	Fixed	Item	
327	Value Related	Item	
328	Time Related	Item	
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329 **Clause C8 - Occupational Health and Safety Act**

The **contractor** shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993).

It is required of the **contractor** to thoroughly study the **latest** Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the **bills of quantities / lump sum document**.

The **contractor** must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the **principal agent**, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress **payment certificate** until the **contractor** provides satisfactory proof of compliance. The **contractor** shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained.

Fixed

Item

330 Value Related

Item

331 Time Related

Item

332 **Clause C9 - Viewing of the school areas**

The **site** is situated in a school area and the tenderer must arrange with the Principal or other responsible school staff to obtain permission to enter the **site** for tendering purposes

Fixed

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333	Value Related	Item
334	Time Related	Item
335	<b>Clause C10 - Commencement of Works in School Areas</b>	
	As the <b>works</b> falls within a school area the <b>contractor</b> must give the Principal or other responsible staff member notice before commencement of the <b>works</b> . Should the <b>contractor</b> fail to make such arrangements, admission to the <b>site</b> may be refused and any additional costs will be for the <b>contractor's</b> account	
	Fixed	Item
336	Value Related	Item
337	Time Related	Item
338	<b>Clause C11 - Entrance Permits to School Areas</b>	
	As the <b>works</b> falls within a school area the <b>contractor</b> shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Principal, or chief security officer	
	Fixed	Item
339	Value Related	Item
340	Time Related	Item

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341 **Clause C12 - 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

Item

342 Value Related

Item

343 Time Related

Item

344 **Clause C13 - HIV/Aids Awareness**

It is required of the **contractor** to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the **bills of quantities**. Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained

The **contractor** must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the **principal agent**, notwithstanding the provisions of Clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress **payment certificate** until the **contractor** provides satisfactory proof of compliance. The **contractor** shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment

Fixed

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345	Value Related	Item	
346	Time Related	Item	
347	<b>Clause C13.1 - Awareness Champion</b>		
	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	Item	
348	Value Related	Item	
349	Time Related	Item	
350	<b>Clause C13.2 - Awareness Workshop</b>		
	Selection and appointment of a competent Service Provider approved by the <b>principal agent</b> , 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	Item	
351	Value Related	Item	
352	Time Related	Item	
353	<b>Clause C13.3 - Posters, booklets, videos, etc.</b>		
	Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the <b>construction period</b> , all in accordance with the HIV/AIDS Specification		
	Fixed	Item	
354	Value Related	Item	
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355	Time Related	Item
356	<b>Clause C13.4 - Access to Condoms</b>	
	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 <b>construction period</b> , all in accordance with the HIV/AIDS Specification	
	Fixed	Item
357	Value Related	Item
358	Time Related	Item
359	<b>Clause C13.5- Monitoring</b>	
	Monitoring HIV/AIDS awareness of workers, providing the <b>principal agent</b> with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the <b>construction period</b> and close out, all in accordance with the HIV/AIDS Specification	
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360	Value Related	Item
361	Time Related	Item

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<p><b><u>SECTION NO.2</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>ALTERATIONS</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>REMOVAL OF EXISTING WORK:</u></b></p> <p>NATURE OF WORK: Tenderers are advised to visit the site and to satisfy themselves as to the nature and extent of the work to be done and provide in their tenders any items not specifically mentioned which they may deem necessary for the proper completion of the work.</p> <p>DIMENSIONS The Contractor is advised to take all dimensions affecting the existing buildings on the site, as he will be held solely responsible for all new work being of the correct size.</p> <p>PIPES, ETC Special care is to be taken not to interfere unnecessarily with any supply pipes or other piping that may be met with and found necessary to disconnect or cut, are to be effectively stopped off and any new connections that may be necessary are to be made with proper fittings and to the satisfaction of the Principal Agent to whom due notice must be given of any alterations to the existing services.</p> <p>PROTECTION In taking down and removing existing work the utmost care is to be observed to avoid any structural or other damage to the remaining portions of the buildings. The Contractor must also protect all work not removed such as walls, floors, doors, windows or other joinery, loose and fixed fittings and electrical appliances, etc. from damage during the progress of the work and provide all necessary materilas for doing so. The Contractor will be held solely responsible for any damage to persons or property and for the safety of the structure throughout the whole of this Contract and must make good at his own expense any damage that may</p>			
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occur.

OLD USABLE MATERIALS from the alterations/demolitions are to become the property of the Client. Old materials for re-use are to be carefully removed, stored and protected from injury including making good any damaged or defective parts as required before fixing. Old reusable materials are to be handed over to the Client are to be carefully removed and neatly stacked on site where directed. The remainder of the old materials and all rubbish to be immediately carted away and the site left clean and unencumbered. The Contractor should allow for removing of rubble from site on daily basis, failing which the client might stop the construction until the site has been cleaned. None of the old stock bricks from the pulling down are to be re-used for any new work. Materials to be handed over to the Client should be kept safely and handed over to the School Governing Body or the school principal who shall sign for all materials received.

MATERIALS, ETC The materials to be used and work to be done to be similar in all respects to that described for new work insofar as they concur. All work in making good is to be properly jointed to the existing.

Unless otherwise stated, all usable material from the demolitions should be kept safely and handed over to the school governing body or the school principal who shall sign for all material received.

**DEMOLITIONS, ETC.**

1	Take down and remove existing diamond mesh fence with razor wire approximately 1800mm high including all posts etc.	m	1 230	
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A : 0	B : 0	E : 0	I : 0
M : 0	O : 0	P : 530	Q : 0
R : 0	S : 0	T : 0	V : 0
W : 700	X : 0	Z : 0	

**Carried to Collection**

Section No. 2  
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

<u>Breaking up and removing mass concrete</u>				
2	Concrete aprons, size approximately 1000mm Wide x 125mm thick	m	66	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 66			
3	85mm Thick surface bed	m2	266	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 210      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 56			
<u>Breaking down and removing brickwork etc</u>				
4	Half brick wall in beamfilling	m2	12	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 12      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
5	One brick walls	m2	52	
	A : 0      B : 0      E : 25      I : 0			
	M : 0      O : 0      P : 27      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
<u>Taking out and removing ironmongery</u>				
6	Locksets, etc.	No	16	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 3      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 13			
7	Cabin hook eye	No	1	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 1			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

8	Steel lockers	No			
	A : 0.0    B : 0.0    E : 0.0    I : 0.0				
	M : 0.0    O : 0.0    P : 0.0    Q : 0.0				
	R : 0.0    S : 0.0    T : 0.0    V : 0.0				
	W : 0.0    X : 0.0    Z : 0.0				
9	Pinning board size 2400 x 1200mm high	No			
	A : 0.0    B : 0.0    E : 0.0    I : 0.0				
	M : 0.0    O : 0.0    P : 0.0    Q : 0.0				
	R : 0.0    S : 0.0    T : 0.0    V : 0.0				
	W : 0.0    X : 0.0    Z : 0.0				
10	Writing board size 4800 x 1200mm high	No			
	A : 0.0    B : 0.0    E : 0.0    I : 0.0				
	M : 0.0    O : 0.0    P : 0.0    Q : 0.0				
	R : 0.0    S : 0.0    T : 0.0    V : 0.0				
	W : 0.0    X : 0.0    Z : 0.0				
	<u>Taking out and removing doors, windows, etc from brickwork to be demolished</u>				
11	Timber single door and frame 813 x 2032mm high	No	3		
	A : 0    B : 0    E : 0    I : 0				
	M : 0    O : 0    P : 3    Q : 0				
	R : 0    S : 0    T : 0    V : 0				
	W : 0    X : 0    Z : 0				
	<u>Taking out and removing doors, windows, etc</u>				
12	Timber single door 813 x 2032mm high	No	6		
	A : 0    B : 0    E : 0    I : 0				
	M : 0    O : 0    P : 0    Q : 0				
	R : 0    S : 0    T : 0    V : 0				
	W : 0    X : 0    Z : 6				
<b>Carried to Collection</b>					
Section No. 2 ALTERATIONS Bill No. 1 ALTERATIONS <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>				R	

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>				
13	Corrugated iron roof covering including timber purlins	m2		
	A : 0.0    B : 0.0    E : 0.0    I : 0.0			
	M : 0.0    O : 0.0    P : 0.0    Q : 0.0			
	R : 0.0    S : 0.0    T : 0.0    V : 0.0			
	W : 0.0    X : 0.0    Z : 0.0			
14	Roof trusses size approximately 7500 x 1500mm high complete.	No	12	
	A : 0    B : 0    E : 0    I : 0			
	M : 0    O : 0    P : 12    Q : 0			
	R : 0    S : 0    T : 0    V : 0			
	W : 0    X : 0    Z : 0			
15	Ceilings including branderings and cornices	m2		
	A : 0.0    B : 0.0    E : 0.0    I : 0.0			
	M : 0.0    O : 0.0    P : 0.0    Q : 0.0			
	R : 0.0    S : 0.0    T : 0.0    V : 0.0			
	W : 0.0    X : 0.0    Z : 0.0			
16	75mm Coved cornice in patches	m	30	
	A : 0    B : 0    E : 0    I : 0			
	M : 0    O : 0    P : 0    Q : 0			
	R : 0    S : 0    T : 0    V : 0			
	W : 0    X : 0    Z : 30			
17	Fibre cement fascias, barge boards, etc.	m	23	
	A : 0    B : 0    E : 0    I : 0			
	M : 0    O : 0    P : 0    Q : 0			
	R : 0    S : 0    T : 0    V : 0			
	W : 0    X : 0    Z : 23			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screeds, plaster, etc

18	20mm Granolithic from floors	m2	35	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 35			

Taking out and removing glass and mirrors

19	Glass from steel windows, including cleaning out rebates and preparing for new glass	m2	7	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 4      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 3			

**OPENINGS THROUGH EXISTING WALLS  
ETC**

Altering openings

20	Altering opening in one brick wall where 900 x 2032mm high steel door frame removed to form opening for new steel door frame 914 x 2032mm high overall by breaking out brickwork on both sides and bottom including and making good face brick both sides (new door and frame measured elsewhere elsewhere)	No	3	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 3      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**SERVICING OF ENVIROLOO TOILET  
TANKS**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

**TOILET TANKS**

21 Service toilet tanks on site and make good all vent pipes

SUM

A : 0      B : 0      E : 0      I : 0  
M : 0      O : 0      P : 0      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 1      X : 0      Z : 0

**SERVICING AND MAKING GOOD TO  
WINDOWS AND DOORS**

22 Replace window stays, handles and pegs

No

35

A : 0      B : 0      E : 0      I : 0  
M : 0      O : 0      P : 6      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 0      X : 0      Z : 29

23 Remove door striker plate and replace with new

No

4

A : 0      B : 0      E : 0      I : 0  
M : 0      O : 0      P : 0      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 0      X : 0      Z : 4

24 Tighten loose door striker plate

No

1

A : 0      B : 0      E : 0      I : 0  
M : 0      O : 0      P : 0      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 0      X : 0      Z : 1

**MAKING GOOD OF FINISHES ETC**

Making good "Rhino" gypsum plasterboard ceilings and  
brandering

25 Ceilings in patches

m2

64

A : 0      B : 0      E : 0      I : 0  
M : 0      O : 0      P : 64      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 0      X : 0      Z : 0

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Making good screed

26	Floors in patches	m2	22	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 22			

**MONEY PROVISIONS**

Folding Door for Partitioning

27	Provide a sum of R 50 000 (fifty thousand rands) for a folding door in three classroom block to be renovated			SUM
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 1      X : 0      Z : 0			

Cartaway of boulders

28	Provide a sum of R 50 000 (Fifty thousand rands) for rubble cartaway			SUM
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 1      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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**COLLECTION**

Total Brought Forward from Page No.

**Page  
No**

**Amount**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.1</u></b></p> <p><b><u>FOUNDATIONS</u></b></p> <p><b><u>EARTHWORKS</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Nature of ground</u></b></p> <p>Use "assumed to be" if no trial holes, soils investigations, etc have been carried out - discuss with engineer. Use "Trial holes indicate that" where the ground has been investigated by means of trial holes</p> <p><b><u>Nature of ground</u></b></p> <p>Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" and where conditions of a more difficult character are indicated these are separately measured</p> <p><b><u>Carting away of excavated material</u></b></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site and also transport of such material to the dumping site.</p> <p><b><u>Filling</u></b></p> <p>Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material.</p>			
<b>Carried to Collection</b>			R
<p>Section No. 3 BUILDING Bill No. 1 FOUNDATIONS <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b></p>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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**Soil poisoning**

Ant and weed poisoning will be applied in accordance to **SABS/SANS** specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. **The contractor will only be paid for this items once they have produced the said certificate to the Principal Agent and all is in order in this regard.**

**SITE CLEARANCE ETC**

Site clearance

1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	2 284																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 74</td> <td>I : 656</td> </tr> <tr> <td>M : 138</td> <td>O : 395</td> <td>P : 0</td> <td>Q : 0</td> </tr> <tr> <td>R : 425</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 596</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 74	I : 656	M : 138	O : 395	P : 0	Q : 0	R : 425	S : 0	T : 0	V : 0	W : 0	X : 596	Z : 0			
A : 0	B : 0	E : 74	I : 656																
M : 138	O : 395	P : 0	Q : 0																
R : 425	S : 0	T : 0	V : 0																
W : 0	X : 596	Z : 0																	
2	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	69																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 0</td> <td>I : 69</td> </tr> <tr> <td>M : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> <tr> <td>R : 0</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 0</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 0	I : 69	M : 0	O : 0	P : 0	Q : 0	R : 0	S : 0	T : 0	V : 0	W : 0	X : 0	Z : 0			
A : 0	B : 0	E : 0	I : 69																
M : 0	O : 0	P : 0	Q : 0																
R : 0	S : 0	T : 0	V : 0																
W : 0	X : 0	Z : 0																	
3	Excavate in pickable earth to reduce ground level below paving and cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	50																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 0</td> <td>I : 10</td> </tr> <tr> <td>M : 0</td> <td>O : 0</td> <td>P : 32</td> <td>Q : 0</td> </tr> <tr> <td>R : 0</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 0</td> <td>Z : 8</td> <td></td> </tr> </table>	A : 0	B : 0	E : 0	I : 10	M : 0	O : 0	P : 32	Q : 0	R : 0	S : 0	T : 0	V : 0	W : 0	X : 0	Z : 8			
A : 0	B : 0	E : 0	I : 10																
M : 0	O : 0	P : 32	Q : 0																
R : 0	S : 0	T : 0	V : 0																
W : 0	X : 0	Z : 8																	

**EXCAVATION, FILLING, ETC**

**Carried to Collection**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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<u>Excavation in earth not exceeding 2m deep</u>				
4	Trenches	m3	205	
	A : 0      B : 0      E : 43      I : 89			
	M : 0      O : 10      P : 0      Q : 0			
	R : 43      S : 0      T : 0      V : 0			
	W : 0      X : 19      Z : 0			
5	Holes	m3	1	
	A : 0      B : 0      E : 0      I : 0			
	M : 1      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
<u>Extra over trench and hole excavations in earth for excavation in</u>				
6	Soft rock	m3	3	
	A : 0      B : 0      E : 1      I : 1			
	M : 0      O : 1      P : 0      Q : 0			
	R : 1      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
7	Hard rock	m3	18	
	A : 0      B : 0      E : 4      I : 9			
	M : 0      O : 1      P : 0      Q : 0			
	R : 4      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
<u>Extra over all excavations for carting away</u>				
8	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	6	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 6      Z : 0			
<b>Carried to Collection</b>				
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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<u>Risk of collapse of excavations</u>			
9	Sides of trench and hole excavations not exceeding 1,5m deep	m2	647
	A : 0      B : 0      E : 113      I : 292		
	M : 4      O : 33      P : 0      Q : 0		
	R : 142      S : 0      T : 0      V : 0		
	W : 0      X : 64      Z : 0		
<u>Keeping excavations free of water</u>			
10	Keeping excavations free of all water other than subterranean water		Item
<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
11	Under floors, steps, paving, etc	m3	127
	A : 0      B : 0      E : 27      I : 60		
	M : 0      O : 7      P : 0      Q : 0		
	R : 28      S : 0      T : 0      V : 0		
	W : 0      X : 6      Z : 0		
12	Backfilling to trenches, holes, etc	m3	73
	A : 0      B : 0      E : 16      I : 30		
	M : 0      O : 4      P : 0      Q : 0		
	R : 15      S : 0      T : 0      V : 0		
	W : 0      X : 8      Z : 0		
<u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density</u>			
13	Under floors, steps, paving etc.	m3	77
	A : 0      B : 0      E : 8      I : 23		
	M : 0      O : 0      P : 32      Q : 0		
	R : 11      S : 0      T : 0      V : 0		
	W : 0      X : -6      Z : 8		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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Compaction of surfaces

14	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	985																
	<table border="0"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 52</td> <td>I : 401</td> </tr> <tr> <td>M : 0</td> <td>O : 15</td> <td>P : 210</td> <td>Q : 0</td> </tr> <tr> <td>R : 160</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 90</td> <td>Z : 56</td> <td></td> </tr> </table>	A : 0	B : 0	E : 52	I : 401	M : 0	O : 15	P : 210	Q : 0	R : 160	S : 0	T : 0	V : 0	W : 0	X : 90	Z : 56			
A : 0	B : 0	E : 52	I : 401																
M : 0	O : 15	P : 210	Q : 0																
R : 160	S : 0	T : 0	V : 0																
W : 0	X : 90	Z : 56																	
15	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density (Ramps)	m2	18																
	<table border="0"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 2</td> <td>I : 6</td> </tr> <tr> <td>M : 0</td> <td>O : 2</td> <td>P : 0</td> <td>Q : 0</td> </tr> <tr> <td>R : 4</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 4</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 2	I : 6	M : 0	O : 2	P : 0	Q : 0	R : 4	S : 0	T : 0	V : 0	W : 0	X : 4	Z : 0			
A : 0	B : 0	E : 2	I : 6																
M : 0	O : 2	P : 0	Q : 0																
R : 4	S : 0	T : 0	V : 0																
W : 0	X : 4	Z : 0																	
16	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density (Tank stands)	m2	17																
	<table border="0"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 0</td> <td>I : 0</td> </tr> <tr> <td>M : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> <tr> <td>R : 0</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 17</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 0	I : 0	M : 0	O : 0	P : 0	Q : 0	R : 0	S : 0	T : 0	V : 0	W : 0	X : 17	Z : 0			
A : 0	B : 0	E : 0	I : 0																
M : 0	O : 0	P : 0	Q : 0																
R : 0	S : 0	T : 0	V : 0																
W : 0	X : 17	Z : 0																	

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17	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density (Under pavings)	m2	69
	A : 0      B : 0      E : 0      I : 69		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Prescribed density tests on filling

18	"Modified AASHTO Density"	No	42
	A : 0      B : 0      E : 2      I : 5		
	M : 5      O : 5      P : 0      Q : 0		
	R : 5      S : 0      T : 0      V : 0		
	W : 0      X : 20      Z : 0		

**SOIL POISONING**

Weed killer mixed in accordance to supplier's specifications

19	To bottoms and sides of trenches, etc.	m2	843
	A : 0      B : 0      E : 171      I : 416		
	M : 6      O : 48      P : 0      Q : 0		
	R : 202      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

20	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	1 053
	A : 0      B : 0      E : 52      I : 470		
	M : 0      O : 15      P : 210      Q : 0		
	R : 160      S : 0      T : 0      V : 0		
	W : 0      X : 90      Z : 56		

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<u>Soil insecticide</u>					
21	To bottoms and sides of trenches etc		m2	843	
	A : 0      B : 0      E : 171      I : 416				
	M : 6      O : 48      P : 0      Q : 0				
	R : 202      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 0				

22	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming		m2	1 053	
	A : 0      B : 0      E : 52      I : 470				
	M : 0      O : 15      P : 210      Q : 0				
	R : 160      S : 0      T : 0      V : 0				
	W : 0      X : 90      Z : 56				

**CONCRETE, FORMWORK AND REINFORCEMENT**

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

15MPa/19mm concrete

23	Surface blinding under footings and bases		m3	12	
	A : 0      B : 0      E : 3      I : 5				
	M : 0      O : 1      P : 0      Q : 0				
	R : 3      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 0				

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

25MPa/19mm concrete

24	Strip footings		m3	79	
	A : 0      B : 0      E : 17      I : 36				
	M : 0      O : 4      P : 0      Q : 0				
	R : 16      S : 0      T : 0      V : 0				
	W : 0      X : 6      Z : 0				

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25	Bases	m3	0.4
	A : 0.0    B : 0.0    E : 0.0    I : 0.0		
	M : 0.4    O : 0.0    P : 0.0    Q : 0.0		
	R : 0.0    S : 0.0    T : 0.0    V : 0.0		
	W : 0.0    X : 0.0    Z : 0.0		

26	Surface bed of rainwater tanks, etc.	m3	2
	A : 0        B : 0        E : 0        I : 0		
	M : 0        O : 0        P : 0        Q : 0		
	R : 0        S : 0        T : 0        V : 0		
	W : 0        X : 2        Z : 0		

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**FINISHING TOP SURFACE OF CONCRETE**

Finishing top surfaces of concrete smooth with a wood float/steel trowel

27	Surface beds, slabs, etc (rainwater tanks)	m2	17
	A : 0        B : 0        E : 0        I : 0		
	M : 0        O : 0        P : 0        Q : 0		
	R : 0        S : 0        T : 0        V : 0		
	W : 0        X : 17       Z : 0		

**SMOOTH FORMWORK (DEGREE OF ACCURACY I)**

**REINFORCEMENT**

Fabric reinforcement

28	Steeledale Mesh standard square fabric mesh, nominal mass 8,88 kg/m <sup>2</sup> with nominal 12mm thick wires and 200 x 200mm pitch (code 888), complying with SANS 1024/2006 requirements cut to 500mm width and laid loose in concrete strip footings	m	404
	A : 0        B : 0        E : 77       I : 204		
	M : 0        O : 23       P : 0        Q : 0		
	R : 100      S : 0        T : 0        V : 0		
	W : 0        X : 0        Z : 0		

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29	Steeledale Mesh standard square fabric mesh, nominal mass 8,88 kg/m <sup>2</sup> with nominal 12mm thick wires and 200 x 200mm pitch (code 888), complying with SANS 1024/2006 requirements cut to 720 x 720mm width and laid loose in concrete bases			
		No	2	
	A : 0      B : 0      E : 0      I : 0			
	M : 2      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

30	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long (rainwater tank stands)			
		m2	17	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 17      Z : 0			

**TEST CUBES**

31	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.			
		Sets	47	
	A : 0      B : 0      E : 2      I : 6			
	M : 6      O : 6      P : 0      Q : 0			
	R : 5      S : 0      T : 0      V : 0			
	W : 0      X : 22      Z : 0			

**BRICKWORK**

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<u>Brickwork of NFP bricks in class II mortar</u>					
32	Piers			m3	1
	A : 0	B : 0	E : 0	I : 0	
	M : 0	O : 0	P : 0	Q : 0	
	R : 0	S : 0	T : 0	V : 0	
	W : 0	X : 0	Z : 0		
33	Half brick walls			m2	199
	A : 0	B : 0	E : 0	I : 16	
	M : 0	O : 98	P : 0	Q : 0	
	R : 45	S : 0	T : 0	V : 0	
	W : 0	X : 40	Z : 0		
34	One brick walls			m2	263
	A : 0	B : 0	E : 44	I : 111	
	M : 0	O : 14	P : 0	Q : 0	
	R : 56	S : 0	T : 0	V : 0	
	W : 0	X : 39	Z : 0		
<b><u>BRICKWORK SUNDRIES</u></b>					
<u>Joint forming material in movement joints:</u>					
35	12mm Fibre board built in vertically between brick skins.			m2	
	A : 0.0	B : 0.0	E : 0.0	I : 0.0	
	M : 0.0	O : 0.0	P : 0.0	Q : 0.0	
	R : 0.0	S : 0.0	T : 0.0	V : 0.0	
	W : 0.0	X : 0.0	Z : 0.0		
<u>Brickwork reinforcement</u>					
36	150mm Wide reinforcement built in horizontally			m	3 096
	A : 0	B : 0	E : 521	I : 1302	
	M : 0	O : 160	P : 0	Q : 0	
	R : 655	S : 0	T : 0	V : 0	
	W : 0	X : 459	Z : 0		

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**FACE BRICKWORK**

Face bricks (Purchase price of R 4 500,00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints

37	Extra over brickwork for face brickwork	m2	116	
	A : 0      B : 0      E : 20      I : 55			
	M : 0      O : 0      P : 0      Q : 0			
	R : 18      S : 0      T : 0      V : 0			
	W : 0      X : 24      Z : 0			

38	Extra over for facing in piers, including bonding and pointed with recesses joints on all exposed faces	m2	7	
	A : 0      B : 0      E : 1      I : 2			
	M : 1      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 3      Z : 0			

Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 5000,00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces

39	Coping on top of one brick wall	m	16	
	A : 0      B : 0      E : 14      I : 2			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**WATERPROOFING**

**JOINT SEALANTS ETC**

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Joint surface to be dry, clean and free from dust and grease. Insert closed cell polyethylene foam-backing strip into joint. Prime joint surface with Jayco G317 two part epoxy primer. Mix two components thoroughly to form a homogenous mixture. Apply Jaycoflex M973 2 Part Polysulphide Sealant into joint using a hand or pressure operated closed barrel gun, smooth sealant using a spatula, all in accordance with manufacturer's recommendations.

40 12 x 20mm In vertical expansion joints including raking out expansion joint filler as necessary

m

2

A : 0	B : 0	E : 0	I : 0
M : 0	O : 0	P : 0	Q : 0
R : 0	S : 0	T : 0	V : 0
W : 0	X : 2	Z : 0	

**BUDGETARY ALLOWANCE**

Modification of foundations

41 Provide a sum of R 140 000.00 (One hundred and forty thousand rand) for Modification of foundations.

A : 0	B : 0	E : 0	I : 0
M : 0	O : 0	P : 0	Q : 1
R : 0	S : 0	T : 0	V : 0
W : 0	X : 0	Z : 0	

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Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.2</u></b></p> <p><b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Cost of tests</u></b></p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)</p> <p>Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated</p> <p><b><u>Formwork</u></b></p> <p>Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p>			
	<b>Carried to Collection</b>			R
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The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.

Formworks to soffits of solid etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described

Form work to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Form work necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**UNREINFORCED CONCRETE CAST  
AGAINST EXCAVATED SURFACES**

20MPa/19mm concrete

1	Ramps	m3	2
	A : 0      B : 0      E : 0      I : 1		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**REINFORCED CONCRETE**

30MPa/19mm concrete

2	Surface beds cast in panels on waterproofing.	m3	96
	A : 0      B : 0      E : 5      I : 40		
	M : 0      O : 1      P : 19      Q : 0		
	R : 16      S : 0      T : 0      V : 0		
	W : 0      X : 9      Z : 5		

3	Slabs including beams and inverted beams	m3	51
	A : 0      B : 0      E : 0      I : 46		
	M : 0      O : 0      P : 0      Q : 0		
	R : 5      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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4	Extra over for concrete thickening in surface beds size approximately 100mm deep, 600mm at top and tapering both sides to 500mm at bottom, including all excavations, cart away, etc.	m	95
	A : 0      B : 0      E : 0      I : 20 M : 4      O : 27      P : 0      Q : 0 R : 44      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
	<b><u>CONCRETE SUNDRIES</u></b>		
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>		
5	Ramps to falls	m2	18
	A : 0      B : 0      E : 2      I : 6 M : 0      O : 2      P : 0      Q : 0 R : 4      S : 0      T : 0      V : 0 W : 0      X : 4      Z : 0		
6	Surface beds, slabs, etc	m2	970
	A : 0      B : 0      E : 52      I : 401 M : 0      O : 0      P : 210      Q : 0 R : 160      S : 0      T : 0      V : 0 W : 0      X : 90      Z : 56		
7	Surface beds, slabs, etc (slabs)	m2	197
	A : 0      B : 0      E : 0      I : 177 M : 0      O : 1      P : 0      Q : 0 R : 18      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
8	Surface beds, slabs, etc to falls and currents	m2	15
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 15      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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**TEST CUBES**

9	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith	Sets	48
	A : 0      B : 0      E : 14      I : 12		
	M : 2      O : 6      P : 0      Q : 0		
	R : 8      S : 0      T : 0      V : 0		
	W : 0      X : 6      Z : 0		

**MOVEMENT JOINTS ETC**

"Sondor" or similar approved

10	Sondor Performance Foams Jointex low density (33kg/m <sup>3</sup> ), cross linked, closed cell, expanded polyethylene joint former, size 85 x 10mm thick with tear off strip fitted to concrete surface with adhesive as per adhesive manufacturer's recommendation.	m	519
	A : 0      B : 0      E : 77      I : 246		
	M : 0      O : 47      P : 0      Q : 0		
	R : 149      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

11	Sondor Performance Foams Jointex low density (33kg/m <sup>3</sup> ), cross linked, closed cell, expanded polyethylene joint former, size 85 x 10mm thick with tear off strip fitted to concrete surface with adhesive as per adhesive manufacturer's recommendation.	m	14
	A : 0      B : 0      E : 14      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Saw cut joints

12	5 x 25mm Saw cut joints on top of concrete	m	357
	A : 0      B : 0      E : 0      I : 127		
	M : 0      O : 55      P : 0      Q : 0		
	R : 69      S : 0      T : 0      V : 0		
	W : 0      X : 106      Z : 0		

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**DIVIDING STRIPS, ETC.**

13	6 x 38mm Angle iron step guard cast into concrete with 3 x 6mm anchors	m	6
	A : 0      B : 0      E : 0      I : 3		
	M : 1      O : 2      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**SMOOTH FORMWORK (DEGREE OF ACCURACY I)**

Smooth formwork to sides

14	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	147
	A : 0      B : 0      E : 2      I : 64		
	M : 0      O : 70      P : 0      Q : 0		
	R : 10      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Smooth formwork to soffits

15	Soffit of slabs	m2	197
	A : 0      B : 0      E : 0      I : 177		
	M : 0      O : 1      P : 0      Q : 0		
	R : 18      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**REINFORCEMENT**

Mild tensile steel reinforcement to structural concrete work

16	12mm Diameter bars	t	4
	A : 0      B : 0      E : 0      I : 4		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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High tensile steel reinforcement to structural concrete work

17	10mm Diameter bars	t	2.81
	A : 0.00    B : 0.00    E : 0.00    I : 2.53		
	M : 0.00    O : 0.02    P : 0.00    Q : 0.00		
	R : 0.26    S : 0.00    T : 0.00    V : 0.00		
	W : 0.00    X : 0.00    Z : 0.00		

**REINFORCEMENT (PROVISIONAL)**

Fabric reinforcement

18	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	985
	A : 0        B : 0        E : 52        I : 401		
	M : 0        O : 15        P : 210        Q : 0		
	R : 160        S : 0        T : 0        V : 0		
	W : 0        X : 90        Z : 56		

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CONCRETE, FORMWORK & REINFORCEMENT (PROV  
**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Section No. 3

BUILDING

Bill No. 2

CONCRETE, FORMWORK & REINFORCEMENT (PROVISIONAL)

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Bill No. 2

CONCRETE, FORMWORK & REINFORCEMENT (PROV

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.3</u></b></p> <p><b><u>MASONRY</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>Sizes in descriptions</u></b></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><b><u>Linings to concrete</u></b></p> <p>Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties</p> <p><b><u>Face bricks</u></b></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><b><u>Pointing</u></b></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p><b><u>SUPERSTRUCTURE</u></b></p> <p><u>Brickwork of NFP bricks in class II mortar</u></p>			
1	<p>Piers</p> <p style="margin-left: 40px;">A : 0      B : 0      E : 0      I : 1</p> <p style="margin-left: 40px;">M : 1      O : 0      P : 1      Q : 0</p> <p style="margin-left: 40px;">R : 1      S : 0      T : 0      V : 0</p> <p style="margin-left: 40px;">W : 0      X : 0      Z : 0</p>	m3	4	
	<b>Carried to Collection</b>			R
	<p>Section No. 3 BUILDING Bill No. 3 MASONRY <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b></p>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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2	L-shaped piers				m3	1
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 0	P : 0	Q : 0		
	R : 0	S : 0	T : 0	V : 0		
	W : 0	X : 1	Z : 0			
3	Half brick walls				m2	233
	A : 0	B : 0	E : 0	I : 42		
	M : 9	O : 56	P : 0	Q : 0		
	R : 126	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			
4	Half brick linings to concrete				m2	33
	A : 0	B : 0	E : 0	I : 17		
	M : 0	O : 17	P : 0	Q : 0		
	R : 0	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			
5	Half brick walls in beamfilling				m2	125
	A : 0	B : 0	E : 10	I : 23		
	M : 3	O : 17	P : 16	Q : 0		
	R : 21	S : 0	T : 0	V : 0		
	W : 0	X : 34	Z : 0			
6	One brick walls				m2	962
	A : 0	B : 0	E : 141	I : 446		
	M : -7	O : -34	P : 23	Q : 0		
	R : 334	S : 0	T : 0	V : 0		
	W : 0	X : 59	Z : 0			
<b><u>BRICKWORK SUNDRIES</u></b>						
7	Extra over brick work for leaving ventilation openings size 115 x 1700mm high at 300mm cc				No	5
	A : 0	B : 0	E : 0	I : 5		
	M : 0	O : 0	P : 0	Q : 0		
	R : 0	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			

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8	Extra over brick work for leaving ventilation openings size 230 x 1700mm high at 300mm cc	No	4
	A : 0      B : 0      E : 0      I : 4		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Joint forming material in movement joints:

9	12mm Bitumen impregnated fibre board built in vertically between brick skins not exceeding 300mm wide	m2	50
	A : 0      B : 0      E : 14      I : 12		
	M : 0      O : 0      P : 0      Q : 0		
	R : 24      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**REINFORCEMENT**

Mild tensile steel reinforcement to brickwork

10	6mm Diameter bars	t	3.51
	A : 0.00      B : 0.00      E : 0.00      I : 2.30		
	M : 0.15      O : 0.26      P : 0.00      Q : 0.00		
	R : 0.26      S : 0.00      T : 0.00      V : 0.00		
	W : 0.00      X : 0.53      Z : 0.00		

Brickwork reinforcement

11	75mm Wide reinforcement built in horizontally	m	2 318
	A : 0      B : 0      E : 172      I : 713		
	M : 37      O : 660      P : 94      Q : 0		
	R : 246      S : 0      T : 0      V : 0		
	W : 0      X : 396      Z : 0		

12	150mm Wide reinforcement built in horizontally	m	5 158
	A : 0      B : 0      E : 564      I : 2085		
	M : 44      O : 80      P : 78      Q : 0		
	R : 2075      S : 0      T : 0      V : 0		
	W : 0      X : 232      Z : 0		

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<u>Galvanised hoop iron cramps, ties, etc</u>					
13	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork	No	400		
	A : 0      B : 0      E : 31      I : 75				
	M : 10     O : 53     P : 52     Q : 0				
	R : 68     S : 0      T : 0      V : 0				
	W : 0     X : 110    Z : 0				
<u>Turning pieces</u>					
14	115mm Wide turning piece to lintels etc	m	191		
	A : 0      B : 0      E : 12      I : 82				
	M : 11     O : 30     P : 0      Q : 0				
	R : 56     S : 0      T : 0      V : 0				
	W : 0     X : 0      Z : 0				
15	230mm Wide turning pieces to lintels etc	m	74		
	A : 0      B : 0      E : 0      I : 38				
	M : 1      O : 18     P : 3      Q : 0				
	R : 14     S : 0      T : 0      V : 0				
	W : 0     X : 0      Z : 0				
<u>"Allied Concrete" prestressed fabricated lintels</u>					
16	110 x 75mm Lintels in lengths not exceeding 3m	m	45		
	A : 0      B : 0      E : 0      I : 8				
	M : 1      O : 8      P : 0      Q : 0				
	R : 27     S : 0      T : 0      V : 0				
	W : 0     X : 0      Z : 0				
17	110 x 75mm Lintels in lengths exceeding 4,50m and not exceeding 6m (across enviro loo pit for support of one brick wall)	m	9		
	A : 0      B : 0      E : 9      I : 0				
	M : 0      O : 0      P : 0      Q : 0				
	R : 0      S : 0      T : 0      V : 0				
	W : 0     X : 0      Z : 0				

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Holes

18	Leave or form opening through one brickwall for pipe n.e 100mm diameter	No	12	
	A : 0      B : 0      E : 4      I : 0			
	M : 1      O : 3      P : 0      Q : 0			
	R : 4      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

19	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	11	
	A : 0      B : 0      E : 6      I : 0			
	M : 1      O : 2      P : 0      Q : 0			
	R : 2      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**FACE BRICKWORK**

Face bricks (Purchase price of R 4 500-00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints

20	Extra over brickwork for face brickwork	m2	1 272	
	A : 0      B : 0      E : 291      I : 664			
	M : -4      O : -36      P : 42      Q : 0			
	R : 244      S : 0      T : 0      V : 0			
	W : 0      X : 70      Z : 0			

21	Extra over brickwork for brick-on-edge header course lintel	m	167	
	A : 0      B : 0      E : 3      I : 79			
	M : 6      O : 34      P : 3      Q : 0			
	R : 42      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

22	Half brick wall faced on both sides	m2	59	
	A : 0      B : 0      E : 5      I : 33			
	M : 0      O : 22      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

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23	Extra over for facing in piers, including bonding and pointed with recesses joints on all exposed faces	m2	75
	A : 0      B : 0      E : 0      I : 17 M : 7      O : 0      P : 23      Q : 0 R : 11     S : 0      T : 0      V : 0 W : 0      X : 16     Z : 0		
24	Fair cutting and fitting around pipe exceeding 100mm diameter	No	2
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
25	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	10
	A : 0      B : 0      E : 4      I : 0 M : 1      O : 2      P : 0      Q : 0 R : 3      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
26	Fair cutting and fitting around pipe exceeding 100mm and not exceeding 200mm diameter	No	11
	A : 0      B : 0      E : 6      I : 0 M : 1      O : 2      P : 0      Q : 0 R : 2      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
	<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R 5000/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>		
27	Coping on top of one brick wall	m	39
	A : 0      B : 0      E : 5      I : 34 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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28	110mm Wide sill set level and slightly projecting	m	3	
	A : 0      B : 0      E : 3      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

29	220mm Wide sill set sloping and slightly protecting outside	m	93	
	A : 0      B : 0      E : 3      I : 41			
	M : 6      O : 15      P : 0      Q : 0			
	R : 28      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS**

Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.

30	Everite Nutec window internal sill, size 150mm wide x 15mm thick (Code: 031-507), manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.	m	82	
	A : 0      B : 0      E : 0      I : 41			
	M : 6      O : 9      P : 0      Q : 0			
	R : 26      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**PAVING**

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31	<p><u>"Paving" bricks, etc. (Purchase amount R 4 500-00/thousand Vat excl. supplied and delivered to site)</u></p> <p>Paving brick, size 220 x 110 x 50mm thick laid in Stretcher Bond pattern with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I.</p>	m2	69																	
	<table style="margin-left: auto; margin-right: auto;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 0</td> <td>I : 69</td> </tr> <tr> <td>M : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> <tr> <td>R : 0</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 0</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 0	I : 69	M : 0	O : 0	P : 0	Q : 0	R : 0	S : 0	T : 0	V : 0	W : 0	X : 0	Z : 0				
A : 0	B : 0	E : 0	I : 69																	
M : 0	O : 0	P : 0	Q : 0																	
R : 0	S : 0	T : 0	V : 0																	
W : 0	X : 0	Z : 0																		
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	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.4</u></b>			
	<b><u>WATERPROOFING</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Waterproofing</u></b>			
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<u>One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course</u>			
1	In walls	m2	124	
	A : 0      B : 0      E : 14      I : 53			
	M : 2      O : 9      P : 0      Q : 0			
	R : 42      S : 0      T : 0      V : 0			
	W : 0      X : 3      Z : 0			
	<u>One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
2	Under surface beds	m2	985	
	A : 0      B : 0      E : 52      I : 401			
	M : 0      O : 15      P : 210      Q : 0			
	R : 160      S : 0      T : 0      V : 0			
	W : 0      X : 90      Z : 56			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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**JOINT SEALANTS ETC**

Sika Primer-3N one component epoxy polyurethane based primer for joint sealants (Sikaflex-PRO 2HP and Sikaflex 11FC), applied in accordance with the manufacturer's instructions.

3 10 x 15mm In expansion joints including raking out of expansion joint filler as necessary m 533

A : 0      B : 0      E : 91      I : 246  
M : 0      O : 47      P : 0      Q : 0  
R : 149      S : 0      T : 0      V : 0  
W : 0      X : 0      Z : 0

Prepare and apply a.b.e. Construction Chemicals epidermix 365 general-purpose liquid epoxy adhesive. Crack injection epoxy and tile pointing grout when mixed with blended silica sand. The compound shall have a 7 day compressive strength of 75 Mpa, a tensile strength of 9 MPa, and a lap shear strength of 4 MPa, all in accordance with the manufacturer's instructions.

4 5 x 10mm In saw cut joints in top of concrete m 357

A : 0      B : 0      E : 0      I : 127  
M : 0      O : 55      P : 0      Q : 0  
R : 69      S : 0      T : 0      V : 0  
W : 0      X : 106      Z : 0

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Joint surface to be dry, clean and free from dust and grease. Insert closed cell polyethylene foam-backing strip into joint. Prime joint surface with Jayco G317 two part epoxy primer. Mix two components thoroughly to form a homogenous mixture. Apply Jaycoflex M973 2 Part Polysulphide Sealant into joint using a hand or pressure operated closed barrel gun, smooth sealant using a spatula, all in accordance with manufacturer's recommendations.

5 12 x 20mm In vertical expansion joints including raking out expansion joint filler as necessary

A : 0	B : 0	E : 0	I : 0
M : 0	O : 0	P : 0	Q : 0
R : 0	S : 0	T : 0	V : 0
W : 0	X : 16	Z : 0	

m

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Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.5</u></b></p> <p><b><u>ROOF COVERINGS ETC</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><u>General</u></p> <p>All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched</p> <p>Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use</p> <p><u>Sizes</u></p> <p>All items are measured net unless otherwise described</p> <p><u>Flashings, trimming plates, etc.</u></p> <p>Prices to include for all cutting and waste and relevant fixing material, unless otherwise described</p> <p>All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable</p> <p>All items are unless otherwise described measured net</p>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Traffic Green colour to be as follows:

**Colour:** Traffic Green  
**Gloss:** 30+/-Gardner 60  
**Film Thickness:** 17 - 22 Microns  
**Primer:** Global Prime 204  
**Pencil Hardness:** H  
**Flexibility:** >8mm  
**Impact Resistance:** >30 INLB on HDG  
**Bending:** 2 Ton HDG  
**Solvent Resistance:** > 100 Double Rubs with MEK  
**Salt Spray Test:** 500 Hours ECCA T8. Corrosion, Blisters, Loss of Adhesion less than 3mm from from the scribe  
**Weather-0-meter:** 2000 Hours ECCA T10, loss of gloss less than 50% average colour change not greater than 5 units (CEILAB)  
**Florida Exposure Test:** After two (2) years loss of gloss less than 75%, average colour change not greater than three (3) units (CEILAB)

**PROFILED METAL SHEETING AND ACCESSORIES**

0,6mm "Brownbuilt Klip-Lok Light Industrial" galvanised troughed sheeting steel with "Chromadek - Traffic Green" finish on one side, in single lengths fixed to timber purlins and 0,6mm galvanised steel accessories with "Chromadek" finish on one side, fixed to roof members by a firm of Specialists who will give a five (5) year guarantee, all in accordance with the manufacturer's instructions

1	Roof covering with pitch not exceeding 50 degrees	m2	1 063																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 42</td> <td>I : 516</td> </tr> <tr> <td>M : 0</td> <td>O : 255</td> <td>P : 0</td> <td>Q : 0</td> </tr> <tr> <td>R : 250</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 0</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 42	I : 516	M : 0	O : 255	P : 0	Q : 0	R : 250	S : 0	T : 0	V : 0	W : 0	X : 0	Z : 0			
A : 0	B : 0	E : 42	I : 516																
M : 0	O : 255	P : 0	Q : 0																
R : 250	S : 0	T : 0	V : 0																
W : 0	X : 0	Z : 0																	
2	Ridge capping (Code FK3) to be Brownbuilt Klip-Lok 406 550mm girth, three times bent along girth and notched on site to suit roof profile.	m	92																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 4</td> <td>I : 21</td> </tr> <tr> <td>M : 2</td> <td>O : 17</td> <td>P : 24</td> <td>Q : 0</td> </tr> <tr> <td>R : 25</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 0</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 4	I : 21	M : 2	O : 17	P : 24	Q : 0	R : 25	S : 0	T : 0	V : 0	W : 0	X : 0	Z : 0			
A : 0	B : 0	E : 4	I : 21																
M : 2	O : 17	P : 24	Q : 0																
R : 25	S : 0	T : 0	V : 0																
W : 0	X : 0	Z : 0																	

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 BUILDING  
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 ROOF COVERINGS, ETC (PROVISIONAL)  
**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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3	Hip capping to be Brownbuilt Klip-Lok 406 550mm girth, three times bent along girth and notched on site to suit roof profile.	m	140	
	A : 0      B : 0      E : 9      I : 54			
	M : 13     O : 18     P : 24     Q : 0			
	R : 22     S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**STEEL LOUVRES**

"NTY Steelworks" or similar approved

4	Triangular steel louvre size approximately 1500 x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc (Purchase price R2 900-00 each Vat excl. supplied and delivered to site)	No	2	
	A : 0      B : 0      E : 2      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

5	Triangular steel louvre size approximately 2000 x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, fixing accessories, etc (Purchase price R3 800-00 each Vat excl. supplied and delivered to site)	No	4	
	A : 0      B : 0      E : 0      I : 2			
	M : 0      O : 0      P : 2      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

6	Triangular steel louvre size approximately 3500 x 500mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, and necessary flashing, fixing accessories, etc (Purchase price R6 600-00 each Vat excl. supplied and delivered to site)	No	12	
	A : 0      B : 0      E : 0      I : 4			
	M : 0      O : 2      P : 0      Q : 0			
	R : 2      S : 0      T : 0      V : 0			
	W : 0      X : 4      Z : 0			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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7 Triangular steel louvre size approximately 6000 x 1100mm high fixed to timber purlins including watertight heading joints, necessary sealing strips, and necessary flashing, fixing accessories, etc (Purchase price R24 900-00 each Vat excl. supplied and delivered to site)

No

A : 0.0	B : 0.0	E : 0.0	I : 0.0
M : 0.0	O : 0.0	P : 0.0	Q : 0.0
R : 0.0	S : 0.0	T : 0.0	V : 0.0
W : 0.0	X : 0.0	Z : 0.0	

**ROOF AND WALL INSULATION**

"Insulation"

8 4mm double-sided aluminium foil insulation laid taut over timber purlins complying with SANS 428:2007, and fixed concurrently with roof covering; including white PVC coated straining wires at 383mm centres, ensuring subsequent sheets overlap the previous sheet by 100mm all in accordance to the manufacturer's recommendations.

m2

1 063

A : 0	B : 0	E : 42	I : 516
M : 0	O : 255	P : 0	Q : 0
R : 250	S : 0	T : 0	V : 0
W : 0	X : 0	Z : 0	

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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Item No	Quantity	Rate	Amount
<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.6</u></b></p> <p><b><u>CARPENTRY AND JOINERY</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Particle board:</u></b></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SABS 1300 Particle board: exterior and flooring type</p> <p>b) SABS 1301 Particle board: interior type</p> <p><b><u>Joinery:</u></b></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><b><u>Fixing</u></b></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><b><u>Decorative laminate finish:</u></b></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p> <p><b><u>ROOFS, ETC.</u></b></p>			
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<p>Section No. 3 BUILDING Bill No. 6 CARPENTRY AND JOINERY <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b></p>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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Plate nailed timber roof truss construction

The following is applicable in respect of roof trusses:

Trusses are at maximum 1100mm centres, roof covering is 0,6mm "Klip-Lok Light industrial" iron sheeting on purlins. Ceilings are 6mm sheeting fibre cement ceilings on 38 x 38mm brandering.

The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on the site before design or fabrication commences.

The design, manufacture and transportation of the roof trusses, bracing etc. shall be under control of a registered Engineer (in accordance with the SABS Code of Practice for the design of Timber Structure) and it shall be required from the manufacturer of the trusses to lodge a written guarantee that the construction has been designed by a qualified Structural Engineer and that the Engineer is in possession of a capability certificate issued by the Institute for Timber Construction Trusses.

The designs must further be in accordance with SABS 0163 as well as the additional requirements of the latest Model Preambles of Trades.

The manufacturer of the trusses shall supply a written guarantee that the trusses are designed, manufactured and erected to support the roof covering specified. The guarantee shall be valid for a period of 10 (ten) years.

Payment of the roof construction will only be made once the two (2) required certificates have been submitted to and approved by the Project Registered Structural Engineers.

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Wrought softwood

1	Complete supply and erection of double pitched timber roof including wall plates, trusses, jack rafters, permanent bracing and 50 x 76mm purlins, etc. all as per the Architectural drawings <b>(Waterborne Toilet Block)</b>	No	1
	A : 0      B : 0      E : 1      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
2	Complete supply and erection of double pitched timber roof including wall plates, trusses, jack rafters, permanent bracing and 50 x 76mm purlins, etc. all as per the Architectural drawings <b>(Nutrition Block)</b>	No	1
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
3	Complete supply and erection of double pitched timber roof including wall plates, trusses, jack rafters, permanent bracing and 50 x 76mm purlins, etc. all as per the drawings attached to these bills of quantities <b>(Administration Block)</b>	No	1
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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4 Complete supply and erection of double pitched timber roof including wall plates, trusses, jack rafters, permanent bracing and 50 x 76mm purlins, etc. all as per the drawings attached to these bills of quantities **(Library/Computer Lab Combo)-Provision is made for the two buildings,price is taken as one as this is a combo**

No 1

A : 0      B : 0      E : 0      I : 1  
M : 0      O : 0      P : 0      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 0      X : 0      Z : 0

Sawn softwood

5 50 x 228mm Bearers bolted m 111

A : 0      B : 0      E : 0      I : 0  
M : 0      O : 15      P : 47      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 0      X : 49      Z : 0

**EAVES, VERGES, ETC**

"Everite FC77" pressed fibre-cement

6 Everite medium density plain ungrooved Nutec fascia boards (Code: 040-904), size 225 x 10mm, fixed to timber rafters twice screwed with 12 x 40mm countersunk brass screws with Chromaprep fascia jointing plate between boards and at board ends. m 198

A : 0      B : 0      E : 24      I : 132  
M : -19      O : 68      P : 68      Q : 0  
R : 50      S : 0      T : 0      V : 0  
W : 0      X : -150      Z : 23

**DOORS, ETC**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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44mm Wrought meranti framed, ledged, braced and batted door of 44 x 150mm top rails and stiles, 22 x 150mm middle legde and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding

7	Door size 900 x 2032mm high	No	6
	A : 0      B : 0      E : 6      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

8	Door size 914 x 2032mm high with standard weather bar	No	10
	A : 0      B : 0      E : 0      I : 0		
	M : 1      O : 0      P : 3      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 6		

9	Double door size 1613 x 2032mm high with equal leaves and rebated meeting stiles and incl. weatherboard	No	3
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

40mm Solid core interior doors with Masonite® Plain standard hardboard door panel for paint (elsewhere specified).

10	Door size 900 x 2032mm high	No	8
	A : 0      B : 0      E : 0      I : 0		
	M : 1      O : 0      P : 0      Q : 0		
	R : 7      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

11	Door size 914 x 2032mm high	No	11
	A : 0      B : 0      E : 0      I : 5		
	M : 0      O : 6      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.7</u></b></p> <p><b><u>CEILINGS , ETC.</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Descriptions:</u></b></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere.</p> <p><b><u>CEILINGS ETC</u></b></p> <p><u>Insulation</u></p> <p>1 100mm thick Aerolite insulation blanket closely fitted and laid on top of ceiling panels, all in strict accordance with the manufacturers specifications. <span style="float: right;">m2</span></p> <p style="margin-left: 40px;">A : 0      B : 0      E : 0      I : 0 M : 0      O : 180      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0</p> <p><u>Sawn softwood</u></p> <p>2 38 x 114mm Ceiling joists <span style="float: right;">m</span></p> <p style="margin-left: 40px;">A : 0      B : 0      E : 0      I : 36 M : 8      O : 37      P : 0      Q : 0 R : 32      S : 0      T : 0      V : 0 W : 0      X : 42      Z : 0</p>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

		<u>"Rhino" gypsum plasterboard cornices</u>					
3	75mm Coved cornices	m				584	
	A : 0      B : 0      E : 36      I : 223						
	M : 18     O : 15     P : 0      Q : 0						
	R : 242    S : 0      T : 0      V : 0						
	W : 0      X : 24     Z : 27						
4	75mm Coved cornices in patches	m				30	
	A : 0      B : 0      E : 0      I : 0						
	M : 0      O : 0      P : 0      Q : 0						
	R : 0      S : 0      T : 0      V : 0						
	W : 0      X : 0      Z : 30						
 <b><u>NAILED UP CEILINGS</u></b>							
<u>6mm "Everite Nutec" fibre-cement boards with H-profile primed steel jointing cover strips over joints</u>							
5	Ceilings on <b>existing</b> 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails. <b>(in patches)</b>	m2				15	
	A : 0      B : 0      E : 0      I : 0						
	M : 0      O : 0      P : 0      Q : 0						
	R : 0      S : 0      T : 0      V : 0						
	W : 0      X : 0      Z : 15						
6	Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2				1 117	
	A : 0      B : 0      E : 25     I : 226						
	M : 0      O : 166    P : 210    Q : 0						
	R : 298    S : 0      T : 0      V : 0						
	W : 0      X : 80     Z : 111						

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7	Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	9
	A : 0      B : 0      E : 1      I : 1		
	M : 1      O : 0      P : 3      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 1		

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Item No		Quantity	Rate	Amount
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1	<p>100mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged</p> <p style="margin-left: 40px;">A : 0      B : 0      E : 0      I : 0</p> <p style="margin-left: 40px;">M : 0      O : 2      P : 3      Q : 0</p> <p style="margin-left: 40px;">R : 0      S : 0      T : 0      V : 0</p> <p style="margin-left: 40px;">W : 0      X : 0      Z : 7</p>	No	12	
	<p><b><u>LOCKS</u></b></p>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

<u>"Padlocks"</u>					
2	Solid hardened steel padlock with a 5 pin keying system with a 55mm body size and supplied keyed different.	No		29	
	A : 0      B : 0      E : 0      I : 2				
	M : 1      O : 15      P : 3      Q : 0				
	R : 2      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 6				
<u>"Dorma" or Similar Approved</u>					
3	Dorma "DDC056501" 65mm satin nickel double cylinder (not master keyed)	No		51	
	A : 0      B : 0      E : 6      I : 7				
	M : 2      O : 7      P : 3      Q : 0				
	R : 7      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 19				
4	Dorma "CB30" satin chrome lever handle (S/C)	Pairs		51	
	A : 0      B : 0      E : 6      I : 7				
	M : 2      O : 7      P : 3      Q : 0				
	R : 7      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 19				
5	Dorma "D036" Cylinder lock case	No		51	
	A : 0      B : 0      E : 6      I : 7				
	M : 2      O : 7      P : 3      Q : 0				
	R : 7      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 19				
6	Dorma "DDS-NP-018" nickel plated door stop. (N/Plated)	No		58	
	A : 0      B : 0      E : 6      I : 9				
	M : 2      O : 8      P : 3      Q : 0				
	R : 11      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 19				

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7	Dorma "DHC-SS-031B" stainless steel hat and coat hook with rubber buffer.	No	10
	A : 0      B : 0      E : 6      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 4      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
8	Dorma "D038R" rebate conversion kit	No	3
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
9	Dorma "DFB-SC-180/150" stainless steel flush bolt with keep fixed to metal	No	3
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
10	Dorma "DFB-SC-180/150" stainless steel flush bolt with keep let into concrete	No	3
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**SUNDRIES**

"Vaal Paragon" or Similar approved

11	32mm Type 9 back grab rail 800mm long plugged	No	2
	A : 0      B : 0      E : 1      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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IRONMONGERY

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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SEKHUKHUNE DISTRICT**

12	32mm Type 8 side grab rail 900mm girth plugged A : 0      B : 0      E : 1      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0  <u>"Solid" or Similar approved</u>	No	2
13	19mm Diameter chromium plated towel rail 600mm long incl. end brackets A : 0      B : 0      E : 2      I : 0 M : 1      O : 0      P : 0      Q : 0 R : 4      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0  <b><u>LETTERS, NAMEPLATES, ETC</u></b> <u>"Nameplates"</u>	No	7
14	Natural anodised aluminium plate with male symbol A : 0      B : 0      E : 2      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0	No	4
15	Natural anodised aluminium plate with female symbol A : 0      B : 0      E : 2      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0	No	4
16	Natural anodised aluminium plate with paraplegic pictogram A : 0      B : 0      E : 1      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0	No	2

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IRONMONGERY

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

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17	150 x 150mm Stainless steel plate engraved with "Tea" sign (St/Steel)	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**STEEL CUPBOARDS**

Approved steel lockers with standard baked enamel finish

18	G10 Double door steel cupboard 914 x 457 x 1828mm high with five shelves	No	6
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 6      Z : 0		

**PINNING BOARDS, WRITING BOARDS,  
PROJECTION SCREENS, ETC**

"Vitrex" or Similar approved

19	Pinning boards 1200 x 1200mm high fixed to brickwork	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 1      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

20	Pinning boards 2400 x 1500mm high fixed to brickwork	No	18
	A : 0      B : 0      E : 0      I : 4		
	M : 0      O : 1      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 12      Z : 0		

21	Pinning boards 3000 x 1500mm high fixed to brickwork	No	4
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 4      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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22 Vitrex system or Similar approved enamelled green folding type writing board, with wall mounted centre board 4800 x 1220mm high with chalk rail and two swing leaves each 1200 x 1220mm high plugged

No

8

A : 0	B : 0	E : 0	I : 2
M : 0	O : 0	P : 0	Q : 0
R : 0	S : 0	T : 0	V : 0
W : 0	X : 6	Z : 0	

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.9</u></b></p> <p><b><u>METALWORK</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Descriptions</u></b></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p><b><u>STEEL HANDRAILS, BALUSTRADES, ETC</u></b></p> <p><u>Welded handrails to walkways</u></p>			
1	<p>Horizontal welded balustrading 1000mm high formed of 50 x 50 x 3mm thick square hollow section top and bottom rails, with uprights formed of 50 x 50 x 3mm thick square hollow section steel at 986mm centres, the balustrading with two diagonal cross members formed of 50 x 25 x 3mm thick hollow section and welded to steel columns (e/m) at 3000mm centres</p> <p style="text-align: center;">A : 0      B : 0      E : 0      I : 2 M : 0      O : 0      P : 21      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 58      Z : 0</p>	m	81	
	<b>Carried to Collection</b>			R
	<p>Section No. 3 BUILDING Bill No. 9 METALWORK <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b></p>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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2	Raking welded balustrading 1000mm high formed of 50 x 50 x 3mm thick square hollow section top and bottom rails, with uprights formed of 50 x 50 x 3mm thick square hollow section steel at 986mm centres, the balustrading with two diagonal cross members formed of 50 x 25 x 3mm thick hollow section and welded to steel columns (e/m) at 3000mm centres	m	18
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 18      Z : 0		
3	100 x 100 x 5mm Thick base plate, four times holed and welded to bottom of posts (e/m)	No	33
	A : 0      B : 0      E : 0      I : 1 M : 0      O : 0      P : 7      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 25      Z : 0		
4	Extra over last for closed end to 50 x 50mm rails	No	16
	A : 0      B : 0      E : 0      I : 4 M : 0      O : 0      P : 4      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 8      Z : 0		
5	M16 x 100mm expansion bolt	No	66
	A : 0      B : 0      E : 0      I : 1 M : 0      O : 0      P : 14      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 51      Z : 0		

**WELDED SCREENS, GATES, ETC**

Gates to external doors

6	Single gate and frame size 855 x 2185mm high (PC Amount R5 500 each VAT excl. supplied and installed to site) ( <b>Nutrition Centre</b> )	No	1
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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7	Double gate and frame size 2000 x 2185mm high (PC Amount R 11 000 each VAT excl. supplied and installed to site) <b>(Nutrition Centre)</b>	No	2
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 2      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
8	Single gate and frame size 1000 x 2185mm high (PC Amount R 4 500-00 each VAT excl. supplied and installed to site) <b>(Classrooms - Renovations, Gate house)</b>	No	7
	A : 0      B : 0      E : 0      I : 0 M : 1      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 6		
9	Double gate and frame size 1500 x 2100mm high (PC Amount R 1850-00 each VAT excl. supplied and installed to site) <b>(Laboratories, Enviro loo toilets, Administration block)</b>	No	4
	A : 0      B : 0      E : 0      I : 2 M : 0      O : 0      P : 0      Q : 0 R : 2      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
<b><u>PRESSED STEEL DOOR FRAMES</u></b>			
<u>1,2mm Double rebated frames suitable for half brick walls</u>			
10	Frame for door size 900 x 2032mm high	No	22
	A : 0      B : 0      E : 6      I : 3 M : 0      O : 5      P : 0      Q : 0 R : 8      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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1,2mm Double rebated frames suitable for one brick walls

11	Frame for door size 914 x 2032mm high	No	4
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 1      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

12	Frame for door size 1613 x 2032mm high	No	2
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**SUNDRY METALWORK**

Bolts

13	100mm Long x 10mm diameter bolt and nut with two (2) washers	No	22
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 4      P : 6      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 12      Z : 0		

14	85mm Long x 10mm wide rawl bolt fixed	No	88
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 16      P : 24      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 48      Z : 0		

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Welded steel columns, etc.

- 15 76 x 76 x 3mm Thick rectangular column size approximately 2800mm high with 200 x 200 x 10mm thick base plate with four holes drilled and U shaped holding bracket size 100 x 60 x 4,5mm thick formed of rectangular hollow section 200mm long twice drilled

No 22

A : 0      B : 0      E : 0      I : 0  
M : 0      O : 4      P : 6      Q : 0  
R : 0      S : 0      T : 0      V : 0  
W : 0      X : 12      Z : 0

**PRESSED STEEL COMBINATION DOORS  
AND FRAMES**

"Nty" doors or Similar approved

- 16 "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

A : 0.0      B : 0.0      E : 0.0      I : 0.0  
M : 0.0      O : 0.0      P : 0.0      Q : 0.0  
R : 0.0      S : 0.0      T : 0.0      V : 0.0  
W : 0.0      X : 0.0      Z : 0.0

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17 "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 **set in openings created elsewhere** No 3

A : 0	B : 0	E : 0	I : 0
M : 0	O : 0	P : 3	Q : 0
R : 0	S : 0	T : 0	V : 0
W : 0	X : 0	Z : 0	

18 "Code 914" door frame size 1690 x 2064mm high fitted with three (3) parliament hinges on both sides, complete with double security gate size 1690 x 2064mm 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 **(Nutrition)** No 1

A : 0	B : 0	E : 0	I : 0
M : 0	O : 1	P : 0	Q : 0
R : 0	S : 0	T : 0	V : 0
W : 0	X : 0	Z : 0	

**STEEL STRONGROOM DOORS,  
VENTILATORS, ETC**

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	<u>"Gunnebo SA" strongroom doors etc. suitable for 230mm walls fixed to brickwork or concrete</u>					
19	Mutual Austen Safes DS50/2/HD SABS Category 2 (Heavy Duty) right hand strongroom door with 2 x 7-lever security keylock, overall size 850 x 1860mm high with and including powder coated finish	No	1			
	A : 0      B : 0      E : 0      I : 0					
	M : 0      O : 0      P : 0      Q : 0					
	R : 1      S : 0      T : 0      V : 0					
	W : 0      X : 0      Z : 0					
	<b><u>STEEL WINDOWS, DOORS, ETC</u></b>					
	<u>"Nty" steel or similar approved school windows with standard burglar bars formed of 20 x 5mm thick flat bars to all sashes</u>					
20	Window type NE1, size 533 x 654mm high	No	4			
	A : 0      B : 0      E : 0      I : 0					
	M : 0      O : 4      P : 0      Q : 0					
	R : 0      S : 0      T : 0      V : 0					
	W : 0      X : 0      Z : 0					
21	Window type NCT1S, size 533 x 954mm high	No	11			
	A : 0      B : 0      E : 6      I : 0					
	M : 0      O : 0      P : 0      Q : 0					
	R : 5      S : 0      T : 0      V : 0					
	W : 0      X : 0      Z : 0					
22	Window type NCTX7S size 1022 x 949mm high	No	7			
	A : 0      B : 0      E : 0      I : 0					
	M : 4      O : 0      P : 0      Q : 0					
	R : 3      S : 0      T : 0      V : 0					
	W : 0      X : 0      Z : 0					
23	Window type NCTX7S5 size 1511 x 949mm high	No	1			
	A : 0      B : 0      E : 0      I : 0					
	M : 1      O : 0      P : 0      Q : 0					
	R : 0      S : 0      T : 0      V : 0					
	W : 0      X : 0      Z : 0					

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24	Composite window type SS41/SSF41, size 1303 x 1022mm high overall	No	6
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 6      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
25	Window type SS42, size 1303 x 978mm high	No	4
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 4      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
26	Window type TD75R, size 1511 x 1264 high	No	9
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 9      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
27	Window type TD75L, size 1511 x 1264 high	No	5
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 5      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
28	Window type 6 size 1143 x 854mm high	No	10
	A : 0      B : 0      E : 0      I : 10		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
29	Composite window type 5/8, size 1143 x 1251mm high overall	No	
	A : 0.0      B : 0.0      E : 0.0      I : 0.0		
	M : 0.0      O : 0.0      P : 0.0      Q : 0.0		
	R : 0.0      S : 0.0      T : 0.0      V : 0.0		
	W : 0.0      X : 0.0      Z : 0.0		

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30	Composite window type 5/5, size 1143 x 1708mm high overall	No	26
	A : 0      B : 0      E : 0      I : 26		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

31	Composite wide type TD7/TD7, size 2044 x 1264mm high overall	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**NATURAL ANODISED ALUMINIUM DOORS, WINDOWS, ETC.**

Natural anodised aluminium windows, doors, etc including frames and sub-frames, fixing, silicone sealant all round, ironmongery and glazing with 6,5mm P.V.B faidband laminated safety glass

32	Purpose made window size 1525 x 1300mm high (PC Amount R 3000 each VAT excl. supplied, delivered installed and tinted on site)	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

33	Purpose made window size 1625 x 1300mm high (PC Amount R 3200 each VAT excl. supplied, delivered and installed on site)	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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34	Purpose size 2400 x 1300mm high (PC Amount R 4500-00 each VAT excl. supplied, delivered and installed on site)	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

35	Purpose made aluminium door size 1485 x 2015mm high (PC Amount R 6750 VAT excl. supplied, delivered and installed on site)	No	2
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**STEEL ROLLER SHUTTERS ETC**

Galvanised roller shutters fixed to brickwork or concrete

36	Chain operated slatted roller shutter for 2400 x 2100mm high opening (PC Amount R 13 500 each VAT excl. supplied, delivered and delivered to site)	No	7
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 7      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**STRUCTURAL STEEL**

Mild steel structure

37	76 x 76 x 3mm Thick hollow section columns secured on top of foundation with 5mm thick fixing base plates, holes etc	t	0.2
	A : 0.0      B : 0.0      E : 0.0      I : 0.0		
	M : 0.0      O : 0.0      P : 0.0      Q : 0.0		
	R : 0.0      S : 0.2      T : 0.0      V : 0.0		
	W : 0.0      X : 0.0      Z : 0.0		

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100 x 100 x 5mm Thick square - tubing columns  
secured on top of foundation with 5mm thick fixing base  
plates, holes etc

A : 0.0	B : 0.0	E : 0.0	I : 0.0
M : 0.0	O : 0.0	P : 0.0	Q : 0.0
R : 0.0	S : 0.2	T : 0.0	V : 0.0
W : 0.0	X : 0.0	Z : 0.0	

t

0.2

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METALWORK

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.10</u></b>			
	<b><u>PLASTERING</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>SCREEDS</u></b>			
	<u>Screeds on concrete</u>			
1	20mm Thick on floors A : 0      B : 0      E : 0      I : 351 M : 12     O : 175    P : 175     Q : 0 R : 161     S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0	m2		874
	<b><u>GRANOLITHIC</u></b>			
	<u>Untinted granolithic on concrete</u>			
2	20mm Thick on floors A : 0      B : 0      E : 26      I : 51 M : 0      O : 15     P : 35      Q : 0 R : 12     S : 0      T : 0      V : 0 W : 0      X : 24     Z : 35	m2		199
	<b><u>INTERNAL PLASTER</u></b>			
	<u>Cement plaster on brickwork</u>			
3	On walls A : 0      B : 0      E : 0      I : 273 M : 11     O : 97     P : 0      Q : 0 R : 697     S : 0      T : 0      V : 0 W : 0      X : 83     Z : 0	m2		1 160
	<b>Carried to Collection</b>			R
	Section No. 3 BUILDING Bill No. 10 PLASTERING <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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4	On narrow widths	m2	53	
	A : 0      B : 0      E : 0      I : 18			
	M : 2      O : 16      P : 0      Q : 0			
	R : 18      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

Cement plaster on concrete

5	On concrete soffits	m2	195	
	A : 0      B : 0      E : 0      I : 177			
	M : 0      O : 0      P : 0      Q : 0			
	R : 18      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**EXTERNAL PLASTER**

Cement plaster on brickwork

Cement plaster on concrete

6	On concrete soffits	m2	1	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 1      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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	<b><u>SECTION NO.3</u></b>			
	<b><u>BILL NO.11</u></b>			
	<b><u>TILING</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<b><u>WALL TILING</u></b>			
	<u>Glazed ceramic wall tiles fixed with adhesive to plaster (plaster elsewhere) (PC Amount R150-00/m2Vat excl supplied and delivered to site)</u>			
1	On walls <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>A : 0</span> <span>B : 0</span> <span>E : 0</span> <span>I : 0</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>M : 0</span> <span>O : 42</span> <span>P : 0</span> <span>Q : 0</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>R : 49</span> <span>S : 0</span> <span>T : 0</span> <span>V : 0</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>W : 0</span> <span>X : 0</span> <span>Z : 0</span> </div>	m2	91	
2	On narrow widths <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>A : 0</span> <span>B : 0</span> <span>E : 0</span> <span>I : 0</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>M : 0</span> <span>O : 3</span> <span>P : 0</span> <span>Q : 0</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>R : 1</span> <span>S : 0</span> <span>T : 0</span> <span>V : 0</span> </div> <div style="display: flex; justify-content: space-between; margin-left: 20px;"> <span>W : 0</span> <span>X : 0</span> <span>Z : 0</span> </div>	m2	4	
	<b><u>FLOOR TILING</u></b>			
	<b>Carried to Collection</b>			R
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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300 x 300 x 11,5mm Ceramic floor tiles fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted waterproof jointing compound (PC Amount R150-00/m2 Vat excl supplied and delivered to site)

3	On floors and landings	m2	876	
	A : 0      B : 0      E : 0      I : 351			
	M : 12     O : 175    P : 175    Q : 0			
	R : 161     S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 1			

4	Skirting formed of ceramic tile cut to 300 x 75mm high	m	887	
	A : 0      B : 0      E : 0      I : 299			
	M : 15     O : 71     P : 88     Q : 0			
	R : 231     S : 0      T : 0      V : 0			
	W : 0      X : 187    Z : -5			

**CORNER PROTECTORS, DIVIDING STRIPS, ETC**

5	3 x 30mm Flat section brass dividing strips between floor finishes	m	50	
	A : 0      B : 0      E : 0      I : 50			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

6	"Compriband Migua FV 30/3550" expansion joint cover strip fixed	m	50	
	A : 0      B : 0      E : 0      I : 50			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**TOILET PAPER HOLDERS ETC**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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"Vaal" white glazed ceramic or similar approved

7	180 x 180 x 120mm Toilet paper holder (Ref. 653110)	No	11
	A : 0      B : 0      E : 6      I : 0		
	M : 1      O : 2      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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	<p><b><u>SECTION NO.3</u></b></p> <p><b><u>BILL NO.12</u></b></p> <p><b><u>PLUMBING AND DRAINAGE</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>"Polycop" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><b><u>"Polylink" polypropylene pipes:</u></b></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

**Concrete pipes:**

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

**Vitrified clay pipes:**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

**uPVC pipes and fittings:**

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings:**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

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**Copper pipes:**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

**Fixing of pipes**

**Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level**

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Wire gratings**

Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings

**Septic tanks**

Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions

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**Exposed concrete surfaces**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

**Flush pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

**Waste unions**

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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**Steel sectional water tanks**

Tanks shall comply with SABS CKS 114

**"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.**

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc

**RAINWATER DISPOSAL**

0,6mm Galvanised sheet iron with "Chromadek" finish on one side

1	125 x 100mm Eaves gutters with beaded front edge	m	598																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 22</td> <td>I : 132</td> </tr> <tr> <td>M : 19</td> <td>O : 68</td> <td>P : 68</td> <td>Q : 0</td> </tr> <tr> <td>R : 90</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 150</td> <td>Z : 48</td> <td></td> </tr> </table>	A : 0	B : 0	E : 22	I : 132	M : 19	O : 68	P : 68	Q : 0	R : 90	S : 0	T : 0	V : 0	W : 0	X : 150	Z : 48			
A : 0	B : 0	E : 22	I : 132																
M : 19	O : 68	P : 68	Q : 0																
R : 90	S : 0	T : 0	V : 0																
W : 0	X : 150	Z : 48																	
2	Extra over eaves gutter for angle	No	44																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 4</td> <td>I : 12</td> </tr> <tr> <td>M : 4</td> <td>O : 4</td> <td>P : 4</td> <td>Q : 0</td> </tr> <tr> <td>R : 12</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 4</td> <td>Z : 0</td> <td></td> </tr> </table>	A : 0	B : 0	E : 4	I : 12	M : 4	O : 4	P : 4	Q : 0	R : 12	S : 0	T : 0	V : 0	W : 0	X : 4	Z : 0			
A : 0	B : 0	E : 4	I : 12																
M : 4	O : 4	P : 4	Q : 0																
R : 12	S : 0	T : 0	V : 0																
W : 0	X : 4	Z : 0																	
3	Extra over eaves gutter for outlet for 100mm diameter pipe	No	58																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 4</td> <td>I : 18</td> </tr> <tr> <td>M : 2</td> <td>O : 6</td> <td>P : 4</td> <td>Q : 0</td> </tr> <tr> <td>R : 12</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 8</td> <td>Z : 4</td> <td></td> </tr> </table>	A : 0	B : 0	E : 4	I : 18	M : 2	O : 6	P : 4	Q : 0	R : 12	S : 0	T : 0	V : 0	W : 0	X : 8	Z : 4			
A : 0	B : 0	E : 4	I : 18																
M : 2	O : 6	P : 4	Q : 0																
R : 12	S : 0	T : 0	V : 0																
W : 0	X : 8	Z : 4																	
4	Extra over eaves gutter for stopped end	No	12																
	<table border="0" style="width: 100%;"> <tr> <td>A : 0</td> <td>B : 0</td> <td>E : 0</td> <td>I : 0</td> </tr> <tr> <td>M : 0</td> <td>O : 0</td> <td>P : 0</td> <td>Q : 0</td> </tr> <tr> <td>R : 0</td> <td>S : 0</td> <td>T : 0</td> <td>V : 0</td> </tr> <tr> <td>W : 0</td> <td>X : 0</td> <td>Z : 12</td> <td></td> </tr> </table>	A : 0	B : 0	E : 0	I : 0	M : 0	O : 0	P : 0	Q : 0	R : 0	S : 0	T : 0	V : 0	W : 0	X : 0	Z : 12			
A : 0	B : 0	E : 0	I : 0																
M : 0	O : 0	P : 0	Q : 0																
R : 0	S : 0	T : 0	V : 0																
W : 0	X : 0	Z : 12																	

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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5	100mm Diameter rainwater pipes	m	120
	A : 0      B : 0      E : 9      I : 40 M : 4      O : 13      P : 8      Q : 0 R : 26      S : 0      T : 0      V : 0 W : 0      X : 11      Z : 8		
6	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	58
	A : 0      B : 0      E : 4      I : 18 M : 2      O : 6      P : 4      Q : 0 R : 12      S : 0      T : 0      V : 0 W : 0      X : 8      Z : 4		
7	Extra over rainwater pipe for shoe	No	50
	A : 0      B : 0      E : 4      I : 18 M : 2      O : 6      P : 2      Q : 0 R : 12      S : 0      T : 0      V : 0 W : 0      X : 4      Z : 2		
	<u>Rainwater tank, etc.</u>		
8	Rainwater tank supplied, delivered and installed on site	No	4
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 4      Z : 0		
	<b><u>SOIL DRAINAGE</u></b>		
	<u>uPVC pipes</u>		
9	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	2
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 2      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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10	110mm Pipes laid in and including trenches not exceeding 1m deep	m	169
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 95      P : 0      Q : 0		
	R : 74      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
	<u>Extra over "Corflo" double walled radial ribbed uPVC pipes with integral moulded cuff joints and rubber seal rings for uPVC fittings</u>		
11	110mm Bend	No	12
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 5      P : 0      Q : 0		
	R : 7      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
12	110mm Junction	No	3
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 2      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
	<u>uPVC gulleys</u>		
13	110mm Gully not exceeding 750mm deep including standard pre-cast concrete surround	No	5
	A : 0      B : 0      E : 2      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
	<u>The following in catchpits, junction boxes and inlet manholes</u>		
14	Excavation not exceeding 2m deep	m3	8
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 4      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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15	Risk of collapse to sides of trench and hole excavations not exceeding 1,5m deep	m2	19
	A : 0      B : 0      E : 0      I : 5		
	M : 0      O : 10      P : 0      Q : 0		
	R : 5      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
16	Weedkiller mixed in accordance to supplier's specifications and applied under floors and sides of holes, etc	m2	31
	A : 0      B : 0      E : 0      I : 8		
	M : 0      O : 15      P : 0      Q : 0		
	R : 8      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
17	Soil poisoning mixed in accordance to supplier's specifications and applied under floors and sides of holes, etc	m2	31
	A : 0      B : 0      E : 0      I : 8		
	M : 0      O : 15      P : 0      Q : 0		
	R : 8      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
18	Extra over all excavations for carting away surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
19	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density as backfilling to trenches, holes, etc.	m3	7
	A : 0      B : 0      E : 0      I : 2		
	M : 0      O : 3      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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20	15Mpa Unreinforced concrete surface blinding	m3	0.1	
	A : 0.0    B : 0.0    E : 0.0    I : 0.0			
	M : 0.0    O : 0.0    P : 0.0    Q : 0.0			
	R : 0.0    S : 0.0    T : 0.0    V : 0.0			
	W : 0.0    X : 0.0    Z : 0.0			
21	25Mpa Reinforced concrete in bottoms	m3	0.2	
	A : 0.0    B : 0.0    E : 0.0    I : 0.1			
	M : 0.0    O : 0.1    P : 0.0    Q : 0.0			
	R : 0.1    S : 0.0    T : 0.0    V : 0.0			
	W : 0.0    X : 0.0    Z : 0.0			
22	Finishing top surfaces of concrete smooth with a steel trowel Surface beds, slabs, etc	m2	2	
	A : 0    B : 0    E : 0    I : 0			
	M : 0    O : 1    P : 0    Q : 0			
	R : 0    S : 0    T : 0    V : 0			
	W : 0    X : 0    Z : 0			
23	Making and testing 150 x 150 x 150mm concrete strength test cube	No	4	
	A : 0    B : 0    E : 0    I : 1			
	M : 0    O : 2    P : 0    Q : 0			
	R : 1    S : 0    T : 0    V : 0			
	W : 0    X : 0    Z : 0			
24	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long laid in concrete bottoms	m2	2	
	A : 0    B : 0    E : 0    I : 0			
	M : 0    O : 1    P : 0    Q : 0			
	R : 0    S : 0    T : 0    V : 0			
	W : 0    X : 0    Z : 0			

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25	Smooth formwork to edges, risers, ends and reveals not exceeding 300mm high or wide	m	11
	A : 0      B : 0      E : 0      I : 3 M : 0      O : 6      P : 0      Q : 0 R : 3      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
26	One brick walls	m2	4
	A : 0      B : 0      E : 0      I : 1 M : 0      O : 2      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
27	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	4
	A : 0      B : 0      E : 0      I : 1 M : 0      O : 2      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
28	230mm Wide reinforcement built in horizontally	m	49
	A : 0      B : 0      E : 0      I : 12 M : 0      O : 24      P : 0      Q : 0 R : 12      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
29	Watertight plaster on brick walls	m2	12
	A : 0      B : 0      E : 0      I : 3 M : 0      O : 6      P : 0      Q : 0 R : 3      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
30	Saint Gobain Pipelines South Africa (Besaans-du Plessis foundries) medium duty Type 8B double seal manhole (Code: 02180), size 600 x 600mm x 124kg.	No	3
	A : 0      B : 0      E : 0      I : 1 M : 0      O : 1      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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31	Saint Gobain Pipelines South Africa (Besaans-du Plessis foundries) medium duty flat flat stormwater drain and frame (Code: 02886), size 450 x 450mm x 71kg.	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
32	Lifting key for manhole cover	No	4
	A : 0      B : 0      E : 0      I : 1		
	M : 0      O : 2      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
<b><u>SUNDRIES</u></b>			
33	110mm uPVC "ABC" cleaning eye	No	2
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
34	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	4
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 2      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
35	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3	8
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 5      P : 0      Q : 0		
	R : 4      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
36	Testing soil drainage pipe system		Item

**SANITARY FITTINGS**

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<u>"Franke" stainless steel or similar approved</u>			
37	Franke Neptune Model NEX611 Grade 304 18/10 polished stainless steel single end bowl inset sink with left hand drainer (Code: 310075), overall size 860 x 510mm with one 360 x 420 x 200mm deep bowl, fitted onto cupboard (elsewhere specified) including 90mm waste fitting with overflow and PVC trap (trap elsewhere specified)	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
38	Franke Trendline Model 1200x535 DEB Grade 304 18/10 polished stainless steel double end bowl drop on sink (Code: 312081), overall size 1200 x 535mm with two 343 x 410 x 140mm deep bowls, fitted onto cupboard (elsewhere specified) including PVC traps (traps elsewhere specified)	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
<u>"Vaal" or Similar approved</u>			
39	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0)	No	10
	A : 0      B : 0      E : 4      I : 0		
	M : 1      O : 2      P : 0      Q : 0		
	R : 3      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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40	White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat	No	9
	A : 0      B : 0      E : 5      I : 0 M : 1      O : 2      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
41	Vaal Sanitaryware Protea Paraplegic vitreous china floor mounted paraplegic washdown suite colour White (Code: 750246) comprising 90° outlet pan (Code: 750200) and matching 9 litre cistern (Code: 710631), including lid, fitments and purpose-made chromium plated side flush lever and B2 economy double flap thermoset seat.	No	2
	A : 0      B : 0      E : 1      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
42	Vaal Sanitaryware 600 x 385 x 380mm Lavatera white vitreous china wall mounted top inlet urinal (code: 705426) including 38mm chromium plated domical grating (code: 8787Z0) and chromium plated top inlet spreader spreader (code: 7054Z1), flush valve (by others - Recommended: Cobra FJ6000), fixed on and including two hanger brackets (code: 8127Z0	No	5
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 4		

**WASTE UNIONS ETC**

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<u>"Cobra Watertech" or similar approved</u>			
43	Cobra Watertech 40mm chrome plated sink waste (Code: 316) with 70mm diameter flange, 45mm long shank, plug, chain and stay.	No	3
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 2      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
44	Cobra Watertech 32mm chrome plated basin waste (Code: 308) with 62mm diameter flange, 80mm long shank and plug.	No	10
	A : 0      B : 0      E : 4      I : 0		
	M : 1      O : 2      P : 0      Q : 0		
	R : 3      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
<b><u>TRAPS ETC</u></b>			
<u>"Marley"</u>			
45	40 x 300mm Sink combination for double bowl with deepseal "P" trap	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
46	40mm Flexi butyl rubber trap with reseal "P" trap	No	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
<u>"Cobra Watertech"</u>			
47	"Cobra Ref. 365/40" CP bottle trap	No	10
	A : 0      B : 0      E : 4      I : 0		
	M : 1      O : 2      P : 0      Q : 0		
	R : 3      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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48	"Cobra Ref. 365/50" CP bottle trap	No	5
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 4		
	<b><u>TAPS, VALVES, ETC</u></b>		
49	"Cobra Ref. 111-15" pillar tap	No	10
	A : 0      B : 0      E : 4      I : 0		
	M : 1      O : 2      P : 0      Q : 0		
	R : 3      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
50	Cobra Watertech 15mm MI x FI x 75mm long extension piece with sliding wall flange (Code: 059-15).	No	4
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 2      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
51	Cobra Watertech 15mm compression type angle regulating valve with 10mm bendable copper outlet tube service connection (Code: 232/350).	No	21
	A : 0      B : 0      E : 10      I : 0		
	M : 2      O : 4      P : 0      Q : 0		
	R : 5      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
52	Cobra Ref. 166/041 wall type "Star" sink mixer with overarm swivel outlet	No	2
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 1      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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53	Cobra Watertech exposed urinal chrome plated Junior Flushmaster flushvalve (code: FJ6.000) with non-hold open feature, wall flange and 20mm "Ball-o-Stop" control inlet.	No	5
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 4		
54	Cobra Watertech chrome plated 15mm outlet x 215mm long with 27mm offset urinal flush pipe (Code: FJT5.5).	No	5
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 4		
<b><u>SANITARY PLUMBING</u></b>			
<u>uPVC pipes</u>			
55	50mm Pipes	m	19
	A : 0      B : 0      E : 4      I : 0 M : 1      O : 5      P : 0      Q : 0 R : 5      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 4		
56	110mm Pipes	m	68
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 62      P : 0      Q : 0 R : 6      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
57	50mm Pipes chased into brick walls	m	98
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 93      P : 0      Q : 0 R : 5      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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58	50mm Pipes laid in and including trenches not exceeding 1m deep	m	5
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 3      P : 0      Q : 0		
	R : 3      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
59	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	22
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 15      P : 0      Q : 0		
	R : 7      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
	<u>Extra over uPVC pipes for fittings</u>		
60	50mm BSP adaptor	No	5
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 4		
61	110mm Pan connector	No	11
	A : 0      B : 0      E : 6      I : 0		
	M : 1      O : 2      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
62	50mm Bend	No	12
	A : 0      B : 0      E : 4      I : 0		
	M : 1      O : 3      P : 0      Q : 0		
	R : 4      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
63	50mm Access bend	No	5
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 1      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 4		

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64	100mm Bend			No	11
	A: 0	B: 0	E: 6	I: 0	
	M: 1	O: 2	P: 0	Q: 0	
	R: 2	S: 0	T: 0	V: 0	
	W: 0	X: 0	Z: 0		
65	50mm Junction			No	12
	A: 0	B: 0	E: 4	I: 0	
	M: 1	O: 3	P: 0	Q: 0	
	R: 4	S: 0	T: 0	V: 0	
	W: 0	X: 0	Z: 0		
66	110mm Junction			No	12
	A: 0	B: 0	E: 6	I: 0	
	M: 1	O: 2	P: 0	Q: 0	
	R: 3	S: 0	T: 0	V: 0	
	W: 0	X: 0	Z: 0		
67	110mm Reducing junction			No	1
	A: 0	B: 0	E: 0	I: 0	
	M: 0	O: 0	P: 0	Q: 0	
	R: 1	S: 0	T: 0	V: 0	
	W: 0	X: 0	Z: 0		
68	110mm Access bend			No	2
	A: 0	B: 0	E: 0	I: 0	
	M: 0	O: 0	P: 0	Q: 0	
	R: 2	S: 0	T: 0	V: 0	
	W: 0	X: 0	Z: 0		
69	110mm Double junction			No	3
	A: 0	B: 0	E: 0	I: 0	
	M: 0	O: 2	P: 0	Q: 0	
	R: 1	S: 0	T: 0	V: 0	
	W: 0	X: 0	Z: 0		
70	110mm Access junction			No	1
	A: 0	B: 0	E: 0	I: 0	
	M: 0	O: 0	P: 0	Q: 0	
	R: 1	S: 0	T: 0	V: 0	
	W: 0	X: 0	Z: 0		

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71	110mm "GI Two-way" vent valve	No	4
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 2      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
	<u>Sundries</u>		
72	Testing waste pipe system	Item	
	A : 0.00      B : 0.00      E : 0.00      I : 0.00		
	M : 0.00      O : 0.00      P : 0.00      Q : 0.00		
	R : 1.00      S : 0.00      T : 0.00      V : 0.00		
	W : 0.00      X : 0.00      Z : 0.00		
	<b><u>WATER SUPPLIES</u></b>		
	<u>Class 16 uPVC pressure pipes with solvent welded joints</u>		
73	32mm Pipes laid in and including trenches not exceeding 1m deep	m	129
	A : 0      B : 0      E : 22      I : 0		
	M : 0      O : 32      P : 0      Q : 0		
	R : 75      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
74	50mm Pipes laid in and including trenches not exceeding 1m deep	m	25
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 25      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
	<u>Extra over class 16 uPVC pressure pipes for fittings with solvent welded joints</u>		
75	32mm Bend	No	17
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 3      P : 0      Q : 0		
	R : 2      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 12		

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BUILDING

Bill No. 12

PLUMBING AND DRAINAGE (PROVISIONAL)

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

76	32mm Reducer				No	6
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 2	P : 0	Q : 0		
	R : 4	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			
77	32mm Tee				No	4
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 2	P : 0	Q : 0		
	R : 2	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			
78	50mm Bend				No	2
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 0	P : 0	Q : 0		
	R : 2	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			
79	50mm Tee				No	4
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 0	P : 0	Q : 0		
	R : 4	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			
	<u>Class 0 copper pipes</u>					
80	15mm Pipes				m	206
	A : 0	B : 0	E : 32	I : 0		
	M : 2	O : 98	P : 0	Q : 0		
	R : 73	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 2			
81	22mm Pipes				m	104
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 62	P : 0	Q : 0		
	R : 42	S : 0	T : 0	V : 0		
	W : 0	X : 0	Z : 0			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Extra over class 0 copper pipes for capillary fittings

82	15mm Fittings	No	124
	A : 0      B : 0      E : 24      I : 0		
	M : 5      O : 36      P : 0      Q : 0		
	R : 51      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 8		

83	22mm Fittings	No	34
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 18      P : 0      Q : 0		
	R : 16      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Sundries

84	Testing water pipe system		Item
	A : 0.00      B : 0.00      E : 0.00      I : 0.00		
	M : 0.00      O : 0.00      P : 0.00      Q : 0.00		
	R : 1.00      S : 0.00      T : 0.00      V : 0.00		
	W : 0.00      X : 0.00      Z : 0.00		

**ELECTRIC WATER HEATERS**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

"Kwikot" or Similar approved

85	Kwikot 250 Litre Standard 600 Dual electric water heater (Code : EF-250-2D) complying with SABS 151-2002, overall size 1650 x 535mm high, operating at 400kPa with temperature and pressure safety relief valve including 20mm female draincock with inlet compression. Geyser to be installed horizontally in roof space with 1820 x 560mm wide polyethylene drip tray with union and back nut connected to 20mm PVC overflow pipe taken out at eaves (Code : GSTP-1940) and 22mm pipe work including two 22mm vacuum breakers (Code : KHN4.200CX) installed on hot and cold water supply. Installation to include a 22mm 400kPa Kwikot Mono control and expansion relief valve (Code : KHN3.114), all in accordance with SANS 10254, connected to single phase electrical power supply with isolator 1m away from connection on geyser.	No	2
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

**FIRE APPLIANCES ETC**

86	4.5kg Dry chemical powder fire extinguisher, including standard hard wood backing plugged and backing finished with one coat dark stain and two coats clear suede polyurethane varnish	No	12
	A : 0      B : 0      E : 0      I : 4 M : 1      O : 2      P : 3      Q : 0 R : 2      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
87	"Everyway" hose reel complete with 30m plastic hose, chromium plated stopcock, shut-off nozzle and wall bracket	No	4
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 1      P : 0      Q : 0 R : 1      S : 0      T : 0      V : 0 W : 0      X : 2      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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	<b><u>BILL NO.13</u></b>			
	<b><u>GLAZING</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>GLAZING TO STEEL WITH PUTTY</u></b>			
	<u>4mm Clear float glass</u>			
1	Panes not exceeding 0,1 m2 A : 0      B : 0      E : 0      I : 0 M : 4      O : 11      P : 0      Q : 0 R : 22      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0	m2		37
2	Panes exceeding 0,1m2 and not exceeding 0,5m2 A : 0      B : 0      E : 0      I : 45 M : 0      O : 0      P : 4      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 3	m2		52
	<u>4mm Rough cast glass</u>			
3	Panes not exceeding 0,1m2 A : 0      B : 0      E : 3      I : 12 M : 1      O : 3      P : 0      Q : 0 R : 7      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0	m2		25
	<b><u>MIRRORS, ETC</u></b>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

6mm Silvered float glass copper backed mirrors with bevelled edges, holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete

4	Mirror 400 x 600mm high with four screws	No	10
	A : 0      B : 0      E : 4      I : 0		
	M : 1      O : 2      P : 0      Q : 0		
	R : 3      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

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<b><u>BILL NO.14</u></b>			
<b><u>PAINTWORK</u></b>			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
<b><u>PAINTWORK ETC TO NEW WORK</u></b>			
<b><u>PREPARATORY WORK TO EXISTING WORK</u></b>			
<b><u>Previously painted plastered surfaces</u></b>			
Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth			
<b><u>Previously painted metal surfaces</u></b>			
Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
<b><u>Previously painted wood surfaces</u></b>			
Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth			
<b><u>ON FLOATED PLASTER</u></b>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

<u>One coat primer and two coats superior quality acrylic emulsion paint for interior use</u>					
1	On internal walls			m2	1 119
	A : 0	B : 0	E : 0	I : 290	
	M : 12	O : 69	P : 0	Q : 0	
	R : 665	S : 0	T : 0	V : 0	
	W : 0	X : 83	Z : 0		
2	On plastered soffits			m2	195
	A : 0	B : 0	E : 0	I : 177	
	M : 0	O : 0	P : 0	Q : 0	
	R : 18	S : 0	T : 0	V : 0	
	W : 0	X : 0	Z : 0		
<u>One coat primer and two coats superior quality acrylic emulsion paint for exterior use</u>					
3	On plastered soffits			m2	1
	A : 0	B : 0	E : 0	I : 0	
	M : 0	O : 1	P : 0	Q : 0	
	R : 0	S : 0	T : 0	V : 0	
	W : 0	X : 0	Z : 0		
<b><u>ON FIBRE-CEMENT</u></b>					
<u>One coat primer and two coats superior quality acrylic emulsion paint for Interior use (Fibre cement)</u>					
4	On ceilings and cornices			m2	1 028
	A : 0	B : 0	E : 25	I : 226	
	M : 0	O : 15	P : 214	Q : 0	
	R : 298	S : 0	T : 0	V : 0	
	W : 0	X : 80	Z : 169		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

One coat primer and two coats superior quality acrylic emulsion paint for exterior use (Fibre cement)

5	On fascias and barge boards	m2	211	
	A : 0      B : 0      E : 9      I : 48			
	M : 0      O : 25      P : 35      Q : 0			
	R : 33      S : 0      T : 0      V : 0			
	W : 0      X : 54      Z : 8			

6	On window sills not exceeding 300 mm girth	m	82	
	A : 0      B : 0      E : 0      I : 41			
	M : 6      O : 9      P : 0      Q : 0			
	R : 26      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**ON METAL**

Plascon Velvaglo Satin or similar approved to interior new mild steel. Surface to be clean and dry. Remove surface contaminants using Metalcare Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3 of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat Metalcare Mild Steel Primer (UC 501) with an overcoating time of 16 hours and finish with two coats Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.

7	On door frames	m2	43	
	A : 0      B : 0      E : 6      I : 12			
	M : 2      O : 11      P : 3      Q : 0			
	R : 10      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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8	On windows with burglar bars	m2	227
	A : 0      B : 0      E : 6      I : 121		
	M : 11     O : 29     P : 0      Q : 0		
	R : 61     S : 0      T : 0      V : 0		
	W : 0     X : 0      Z : 0		
9	On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area )	m2	293
	A : 0      B : 0      E : 0      I : 17		
	M : 9     O : 28     P : 53     Q : 0		
	R : 12     S : 0      T : 0      V : 0		
	W : 0     X : 152    Z : 22		
10	On rails, bars, pipes, etc not exceeding 300 mm girth	m	62
	A : 0      B : 0      E : 0      I : 0		
	M : 0     O : 11     P : 17     Q : 0		
	R : 0     S : 0      T : 0      V : 0		
	W : 0     X : 34     Z : 0		

**ON WOOD**

Plascon Velvaglo Satin or similar approved to interior new wood. Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.

11	On doors	m2	25
	A : 0      B : 0      E : 0      I : 0		
	M : 0     O : 0      P : 0      Q : 0		
	R : 25     S : 0      T : 0      V : 0		
	W : 0     X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Plascon Woodcare Clear Varnish or similar approved to exterior new wood. Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat Woodcare Clear Varnish (CVE 5) with an overcoating time of 16 hours and finish with two coats Woodcare Clear Varnish (CVE 5) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.

12	On doors	m2	127	
	A : 0      B : 0      E : 24      I : 33			
	M : 7      O : 30      P : 11      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 21			

13	On beams and bearers, etc.	m2	62	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 8      P : 26      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 28      Z : 0			

**PAINTWORK, ETC TO PREVIOUSLY PAINTED WORK**

One coat primer and two coats superior quality acrylic emulsion paint or similar approved for exterior use (Fibre cement)

14	On fascias and barge boards	m2	41	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 41			

**ON METAL**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Plascon Velvagro Satin or similar approved to existing solvent based coated exterior mild steel (RD 683). Remove all paint and rust completely. Apply Plascon Rust Remover (RR 1) to rusted areas and scrub with hard bristle brush to remove rust. Rinse thoroughly with tap water. Repeat process if rust is not removed. Dry surface rapidly to prevent flash rust formation. In areas where rust cannot be removed completely, remove all loose rust by scraping and wire brushing, then apply Plascon Rusist Rust Converter (EMS 21) copiously, but only to areas where tightly adherent rust remains. Allow coating to turn black (minimum 4 hours) before overcoating. Remove Rust Converter with water where it has not reacted and turned black. Ensure surfaces are clean, dry and sound. Apply either Plascon Universal Undercoat (UC 1) or Professional Undercoat (PU 800) to bare and repaired areas. Allow 16 hours to dry; or apply Plascon Multisurface Primer (WUP 1) to bare and repaired areas. Allow 2 hours to dry. Finish with two coats of Velvagro Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.

15	On door frames	m2	10
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 10		

16	On windows with burglar bars	m2	14
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 14      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Plascon Nuroof Acrylic or similar approved Roof Paint to existing exterior galvanised steel.

17	On corrugated iron roof sheeting (measured on flat)	m2	240
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 240		

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	<b><u>BILL NO. 2</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>COVERED AND PAVED WALKWAYS</u></b>			
	<u>Materials and workmanship must be in accordance to the following SABS 1200 specifications:</u>			
	C - Site clearance			
	D - Earthworks			
	DM - Earthworks (Roads, subgrade)			
	M - Roads (General)			
	ME - Sub-base			
	MF - Base			
	MK - Kerb and Channeling			
	MM - Ancillary Roadworks			
	<b><u>EARTHWORKS</u></b>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	600	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 600      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
	<u>Earthworks</u>			
2	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	600	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 600      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

3	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	84
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 84      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
4	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	64
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 64      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
5	Extra over excavation for excavation in soft rock	m3	6
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 6      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
6	Ditto, but in hard rock	m3	16
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 16      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Paving layers

The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.

Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit

7	150mm Selected filling previously set aside compacted to 93% mod. AASHTO density	m3	84
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 84      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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PAVED WALKWAYS, ETC.

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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8	125mm Imported G6 material compacted to 95% mod. AASHTO density	m3	64	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 64      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
9	125mm Imported G7 material compacted to 95% mod. AASHTO density	m3	64	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 64      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
10	Provide a sum of R 6 500 (Six thousand, five hundred rand) for compaction tests as required by the Engineer		Item	6 500.00
	<b><u>PAVING</u></b>			
	<u>Interlocking paving</u>			
11	Technicrete Bondbrick or similar approved 50mm thick Grey paving blocks laid to stretcher bond pattern in accordance with SANS 1200 MJ and CMA Concrete Block Paving Manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted washed river sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three months.	m2	488	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 488      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
12	Circular cutting to paving	m	115	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 115      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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13	<p>Weed-killing treatment of surface under paving</p> <p>A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 488      T : 0      V : 0 W : 0      X : 0      Z : 0</p> <p><u>Kerbs, etc</u></p>	m2	488
14	<p>Infraset or similar approved Garden precast concrete kerb, size 500 x 150 x 75mm thick, placed in position, bedded and jointed in (3:1) cement mortar and flush pointed on exposed faces, including 15MPa/19mm unreinforced concrete haunching at back of each joint, excavation, backfilling, ramming, etc.</p> <p>A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 916      T : 0      V : 0 W : 0      X : 0      Z : 0</p>	m	916
15	<p>Infraset or similar approved Garden precast concrete kerb, size 500 x 150 x 75mm thick, <b>circular</b> on plan placed in position, bedded and jointed in (3:1) cement mortar and flush pointed on exposed faces, including 15MPa/19mm unreinforced concrete haunching at back of each joint, excavation, backfilling, ramming, etc.</p> <p>A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 135      T : 0      V : 0 W : 0      X : 0      Z : 0</p>	m	135

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.4</u></b>			
	<b><u>BILL NO. 3</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>ASSEMBLY AREA PAVING</u></b>			
	<u>Materials and workmanship must be in accordance to the following SABS 1200 specifications:</u>			
	C - Site clearance			
	D - Earthworks			
	DM - Earthworks (Roads, subgrade)			
	M - Roads (General)			
	ME - Sub-base			
	MF - Base			
	MK - Kerb and Channeling			
	MM - Ancillary Roadworks			
	<b><u>EARTHWORKS</u></b>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	550	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 550			
	W : 0      X : 0      Z : 0			
	<u>Earthworks</u>			
2	Rip and scarify ground level to a depth of 150mm and consolidate to 90% mod. AASHTO density (minimum CBR 3)	m2	550	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 550			
	W : 0      X : 0      Z : 0			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

3	Excavate in pickable earth to reduce ground level below paving and set aside for later use	m3	162	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 162			
	W : 0      X : 0      Z : 0			

4	Ditto, but cart away excavated material to a dumping place to be found by the contractor (cut to spoil)	m3	108	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 108			
	W : 0      X : 0      Z : 0			

5	Extra over excavation for excavation in soft rock	m3	14	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 14			
	W : 0      X : 0      Z : 0			

6	Ditto, but in hard rock	m3	20	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 20			
	W : 0      X : 0      Z : 0			

Paving layers

The following to be natural selected gravel layers evenly spread and consolidated in layers and dimensions as specified and on the drawings. All thicknesses to be consolidated thicknesses.

Where described as "imported" the gravel to be supplied and carted on by the contractor from an approved borrow pit

7	150mm Selected filling previously set aside compacted to 93% mod. AASHTO density	m3	162	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 162			
	W : 0      X : 0      Z : 0			

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ASSEMBLY AREA PAVING

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

8	125mm Imported G7 material compacted to 95% mod. AASHTO density	m3	55		
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 55 W : 0      X : 0      Z : 0				
9	125mm Imported C4 material with and including 3% 32,50 BV cement and consolidated to 97% mod. AASHTO density	m3	55		
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 55 W : 0      X : 0      Z : 0				
10	Provide a sum of R5 000,00 (Five thousand rand) for compaction tests as required by the Engineer		Item		5 000.00
	<b><u>PAVING</u></b>				
	<u>Interlocking paving</u>				
11	60mm Thick double interlocking (DZZ) precast grey coloured concrete paving blocks laid in a herringbone pattern on and including 20mm sand founding layer and covered with sandlayer and sweep into joints	m2	550		
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 550 W : 0      X : 0      Z : 0				
12	Circular cutting to paving	m	38		
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 38 W : 0      X : 0      Z : 0				

**SOIL POISONING**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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	<u>Weed killer mixed in accordance to supplier's specifications</u>					
13	Weed-killing treatment of surface under paving				m2	550
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 0	P : 0	Q : 0		
	R : 0	S : 0	T : 0	V : 550		
	W : 0	X : 0	Z : 0			
	<b><u>KERBS</u></b>					
	<u>Kerbs, etc</u>					
14	Precast concrete figure 8 mountable kerb (SABS 927), levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs				m	180
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 0	P : 0	Q : 0		
	R : 30	S : 0	T : 0	V : 150		
	W : 0	X : 0	Z : 0			
15	Precast concrete figure 7 kerb (SABS 927), levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs				m	112
	A : 0	B : 0	E : 0	I : 0		
	M : 0	O : 0	P : 0	Q : 0		
	R : 16	S : 0	T : 0	V : 96		
	W : 0	X : 0	Z : 0			

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16	Precast concrete figure 7 kerb (SABS 927), circular on plan n.e 4m area levelled and jointed in 1:5 cement mortar complete with 15Mpa/19mm in situ concrete support blocks size 225 x 150 x 225mm high, at joints at 1,0m centres, including leaving 6mm expansion joints at 10m intervals between kerbs	m	38
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 38 W : 0      X : 0      Z : 0		

Sundries

17	Mass concrete (25MPa) in 60 x 60mm edge filler strip finished smooth on top with a wood float, including all excavation, formwork, etc	m	95
	A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 15      S : 0      T : 0      V : 80 W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Item No	Quantity	Rate	Amount
<b><u>SECTION NO.3</u></b>			
<b><u>BILL NO. 4</u></b>			
<b><u>FENCING</u></b>			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades as well as Engineering Specifications			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<b><u>The following shall apply with regards to the palisade fencing :</u></b>			
<b>Panels : 1800mm x 3000m</b>			
<b>Fence bearers:</b>			
<ul style="list-style-type: none"> <li>• 40 x 40 x 2mm angle iron. These are to be placed 300mm from top of paling and 300mm from bottom of paling. (350mm from ground level).</li> <li>• These are to be welded flash with the back of the post.</li> </ul>			
<b>Palings "Devil fork" or "Three Spikes":</b>			
<ul style="list-style-type: none"> <li>• 21 Palings per panel</li> <li>• 30 x 30 x 2mm steel angle iron paling 1.8m high.</li> <li>• Palings to be inserted and firmly welded to the bearers at 133mm centre to centre.</li> <li>• Top of the paling to provide a "Devil Fork" effect and the bottom will have a dove tail.</li> </ul>			
<b>Posts:</b>			
<ul style="list-style-type: none"> <li>• 76 x 76 x 2 mm steel square tubing with closing pyramid caps on top.</li> <li>• Post must 2.4m high and 600mm will planted into concrete footing to engineer's design.</li> </ul>			
<b>Palisade Gates</b>			
<ul style="list-style-type: none"> <li>• <b>Sliding Gate:</b></li> <li>• 5 m wide x 1.8 m high. 40 x 40 x 2 mm angle iron palings welded to a 76 x 38x 2mm</li> </ul>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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- rectangular tubing bearer frame.
- Palings to be placed at 133 mm apart from each other centre to centre
- Gate to be provided with 2 x 80mm roller coaster wheels fitted with ball bearing. These are to be fitted 500mm from edge of the gates.
- Gate to be provide with proper closing and guidance mechanism.
- Track is to be 12 mm steel rod welded to a 40 x 40 x 5mm angle iron fixed into a 300 wide x 400 thick x 5m length of the gate (track concrete to engineer's design).
- Gate Post: 75mm x 75mm x 2mm steel square tubing post is to be provided on each side of gate opening with closing pyramid caps on top.
- Post to be founded in a concrete footing 450 x 450 x 600 deep. Concrete strength to be 20Mpa (minimum) at 28 days.
  
- **Pedestrian gate:**
- 1500 mm wide x 1800 mm high. 40 x 40 x 2 mm angle iron palings welded to a minimum 50 x 25 x 1.6mm rectangular tubing bearer frame.
  
- Palings to be placed at 133 mm apart from each other centre to centre

The contractor shall submit shop drawings for gates for approval by the architects

**EXCAVATIONS**

**SITE CLEARANCE ETC**

Site clearance

1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	700
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 700      V : 0		
	W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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**EXCAVATION, FILLING, ETC**

Excavation in earth not exceeding 2m deep

2	Holes	m3	25
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 25      V : 0		
	W : 0      X : 0      Z : 0		

Extra over trench and hole excavations in earth for excavation in

3	Soft rock	m3	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 1      V : 0		
	W : 0      X : 0      Z : 0		

4	Hard rock	m3	1
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 1      V : 0		
	W : 0      X : 0      Z : 0		

Extra over all excavations for carting away

5	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	25
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 25      V : 0		
	W : 0      X : 0      Z : 0		

Risk of collapse of excavations

6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	248
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 248      V : 0		
	W : 0      X : 0      Z : 0		

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	<u>Keeping excavations free of water</u>			
7	Keeping excavations free of all water other than subterranean water			Item
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<u>15MPa/19mm concrete</u>			
8	Base	m3	25	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 25      V : 0			
	W : 0      X : 0      Z : 0			
	<u>Steel Palisade erected in strict accordance to the manufacturer's instructions</u>			
9	Palisade Panels Size 3000mm x 1800mm high	No	90	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 90      V : 0			
	W : 0      X : 0      Z : 0			
10	Intermediate Posts	No	80	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 80      V : 0			
	W : 0      X : 0      Z : 0			
11	Corner Posts	No	2	
	A : 0      B : 0      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 2      V : 0			
	W : 0      X : 0      Z : 0			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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12	Gate Posts A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 4      V : 0 W : 0      X : 0      Z : 0  <b><u>GATES, ETC.</u></b>	No	4		
13	Pedestrian Gate A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 1      V : 0 W : 0      X : 0      Z : 0	No	1		
14	Vehicle Sliding gate A : 0      B : 0      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 1      V : 0 W : 0      X : 0      Z : 0  <b><u>GATES, ETC.</u></b>  <u>Money Provision:</u>	No	1		
15	Allow a sum of R10 000,00 (Ten thousand rand) for gates not clearly defined during the time of tender			Item	10 000.00
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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	<b><u>BILL NO. 5</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>APRONS AROUND BUILDINGS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2		1 411
	A : 0      B : 0      E : 49      I : 183 M : 48      O : 153      P : 178      Q : 0 R : 225      S : 0      T : 0      V : 0 W : 0      X : 399      Z : 178			
	<u>15 MPa/20 mm concrete</u>			
2	Aprons cast in panels to falls	m3		102
	A : 0      B : 0      E : 4      I : 13 M : 3      O : 11      P : 13      Q : 0 R : 16      S : 0      T : 0      V : 0 W : 0      X : 29      Z : 13			
3	Stormwater channel cast in panels	m3		81
	A : 0      B : 0      E : 3      I : 11 M : 3      O : 9      P : 10      Q : 0 R : 13      S : 0      T : 0      V : 0 W : 0      X : 23      Z : 10			
	<b>Carried to Collection</b>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Grooves, channels, mortices, sinkings, etc. in concrete

4	Segmental channel with radius 290mm and minimum depth of 100mm on top of concrete, incl. all excavations, cart away etc.	m	522
	A : 0      B : 0      E : 18      I : 68		
	M : 18     O : 57     P : 66     Q : 0		
	R : 83     S : 0      T : 0      V : 0		
	W : 0     X : 148    Z : 66		

Finishing top surfaces of concrete smooth with a wood float

5	Aprons to falls	m2	784
	A : 0      B : 0      E : 27      I : 102		
	M : 27     O : 85     P : 99     Q : 0		
	R : 125    S : 0      T : 0      V : 0		
	W : 0     X : 222    Z : 99		

Smooth formwork to sides

6	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	1 045
	A : 0      B : 0      E : 36      I : 136		
	M : 35     O : 113    P : 132    Q : 0		
	R : 166    S : 0      T : 0      V : 0		
	W : 0     X : 295    Z : 132		

**REINFORCEMENT (PROVISIONAL)**

Fabric reinforcement

7	Steeledale Mesh standard square fabric mesh, nominal mass 1,93 kg/m <sup>2</sup> with nominal 5,6mm thick wires and 200 x 200mm pitch (code 193), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	733
	A : 0      B : 0      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 733    T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**MOVEMENT JOINTS ETC**

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"Sondor" or equally approved

8	Sondor Performance Foams Jointex low density (33kg/m <sup>3</sup> ), cross linked, closed cell, expanded polyethylene joint former, size 75 x 10mm thick with tear off strip fitted to concrete surface with adhesive as per adhesive manufacturer's recommendation.	m	522
	A : 0      B : 0      E : 18      I : 68		
	M : 18     O : 57     P : 66     Q : 0		
	R : 83     S : 0      T : 0      V : 0		
	W : 0     X : 148    Z : 66		

Expansion joints

9	10 x 10mm In expansion joints including raking out of expansion joint filler as necessary	m	522
	A : 0      B : 0      E : 18      I : 68		
	M : 18     O : 57     P : 66     Q : 0		
	R : 83     S : 0      T : 0      V : 0		
	W : 0     X : 148    Z : 66		

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	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>RAMPS</u></b>			
	<u>Compaction of surfaces</u>			
1	Compaction of ground surface under ramps including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2	20	
	A : 0      B : 0      E : 0      I : 12 M : 4      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 4      Z : 0			
	<u>15 MPa/20 mm concrete</u>			
2	Ramps, etc	m3	3	
	A : 0      B : 0      E : 0      I : 2 M : 1      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 1      Z : 0			
3	Extra over concrete for thickening on edge size 50mm deep x 200mm at top tapering to 100mm at bottom including excavations, cart away etc.	m	40	
	A : 0      B : 0      E : 0      I : 24 M : 8      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 8      Z : 0			
	<b>Carried to Collection</b>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
4	Ramps to falls	m2	20	
	A : 0      B : 0      E : 0      I : 12			
	M : 4      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 4      Z : 0			
	<u>Smooth formwork to sides</u>			
5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	40	
	A : 0      B : 0      E : 0      I : 24			
	M : 8      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 8      Z : 0			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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RAMPS, ETC

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RAMPS, ETC

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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	<b><u>BILL NO. 7</u></b>			
	<b><u>SEPTIC TANKS, ETC.</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>SITE CLEARANCE ETC</u></b>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	77	
	A : 0      B : 77      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Holes	m3	66	
	A : 0      B : 66      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
	<u>Excavation in earth exceeding 2m and not exceeding 4m deep</u>			
3	Holes	m3	8	
	A : 0      B : 8      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
	<b>Carried to Collection</b>			R
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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<u>Extra over all excavations for carting away</u>			
4	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	34
	A : 0      B : 34      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
<u>Risk of collapse of excavations</u>			
5	Sides of trench and hole excavations not exceeding 1,5m deep	m2	54
	A : 0      B : 54      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
6	Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep	m2	27
	A : 0      B : 27      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
7	Backfilling to trenches, holes, etc	m3	40
	A : 0      B : 40      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		
<u>Keeping excavations free of water</u>			
8	Keeping excavations free of all water other than subterranean water		Item

**REINFORCED CONCRETE**

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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20MPa/19mm concrete

9	Surface beds cast in panels	m3	3	
	A : 0      B : 3      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

10	Slab over septic tank	m3	2	
	A : 0      B : 2      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

11	Concrete haunch formed below pipes	m3	0.09	
	A : 0.00      B : 0.09      E : 0.00      I : 0.00			
	M : 0.00      O : 0.00      P : 0.00      Q : 0.00			
	R : 0.00      S : 0.00      T : 0.00      V : 0.00			
	W : 0.00      X : 0.00      Z : 0.00			

**CONCRETE SUNDRIES**

Finishing top surfaces of concrete smooth with a steel trowel

12	Surface beds, slabs, etc to falls	m2	35	
	A : 0      B : 35      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

Grooves, channels, mortice , sinkings, etc in concrete

	Form 25 x 25mm chamfer to edges of concrete	m	26	
	A : 0      B : 26      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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<u>Permanent formwork to soffits</u>				
13	Slab over septic tank		m2	12
	A : 0	B : 12	E : 0	I : 0
	M : 0	O : 0	P : 0	Q : 0
	R : 0	S : 0	T : 0	V : 0
	W : 0	X : 0	Z : 0	
<u>Smooth formwork to form</u>				
14	Opening not exceeding 1m girth through 150mm slab		No	4
	A : 0	B : 4	E : 0	I : 0
	M : 0	O : 0	P : 0	Q : 0
	R : 0	S : 0	T : 0	V : 0
	W : 0	X : 0	Z : 0	
<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u></b>				
<u>Smooth formwork to sides</u>				
15	Edges, risers, ends and reveals not exceeding 300mm high or wide		m	28
	A : 0	B : 28	E : 0	I : 0
	M : 0	O : 0	P : 0	Q : 0
	R : 0	S : 0	T : 0	V : 0
	W : 0	X : 0	Z : 0	
<b><u>REINFORCEMENT</u></b>				
<u>Mild steel reinforcement to structural concrete work</u>				
16	10mm Diameter bars		t	0.09
	A : 0.00	B : 0.09	E : 0.00	I : 0.00
	M : 0.00	O : 0.00	P : 0.00	Q : 0.00
	R : 0.00	S : 0.00	T : 0.00	V : 0.00
	W : 0.00	X : 0.00	Z : 0.00	

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Fabric reinforcement

17	Steeledale Mesh standard square fabric mesh, nominal mass 3,95 kg/m <sup>2</sup> with nominal 8mm thick wires and 200 x 200mm pitch (code 395), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.(septic tank bottoms)	m2	17
	A : 0      B : 17      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**MASONRY**

Brickwork of NFP bricks in class II mortar

18	One brick walls	m2	46
	A : 0      B : 46      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Brickwork reinforcement

19	150mm Wide reinforcement built in horizontally	m	144
	A : 0      B : 144      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**BRICKWORK SUNDRIES**

20	Leave of form 450 x 150mm high opening through a one brick wall	No	2
	A : 0      B : 2      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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21	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	4	
	A : 0      B : 4      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**PLASTERING**

Watertight cement plaster on brickwork

22	On walls	m2	47	
	A : 0      B : 47      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

**PLUMBING AND DRAINAGE**

uPVC pipes

23	110mm Pipes	m	2	
	A : 0      B : 2      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

Extra over uPVC pipes for fittings

24	110mm Tee	No	4	
	A : 0      B : 4      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

Cover, etc

25	600 x 600mm Type 2A cast iron single seal manhole cover and frame	No	4	
	A : 0      B : 4      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			

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26 Lifting key for manhole cover

No

4

A : 0	B : 4	E : 0	I : 0
M : 0	O : 0	P : 0	Q : 0
R : 0	S : 0	T : 0	V : 0
W : 0	X : 0	Z : 0	

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	<b><u>BILL NO. 8</u></b>			
	<b><u>SEPTIC TANKS AND DISTRIBUTION, ETC.</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>SITE CLEARANCE ETC</u></b>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	33	
	A : 0      B : 33      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Holes	m3	9	
	A : 0      B : 9      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
	<u>Extra over all excavations for carting away</u>			
3	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	2	
	A : 0      B : 2      E : 0      I : 0			
	M : 0      O : 0      P : 0      Q : 0			
	R : 0      S : 0      T : 0      V : 0			
	W : 0      X : 0      Z : 0			
	<b>Carried to Collection</b>			R
	Section No. 4 EXTERNAL WORKS Bill No. 7 SEPTIC TANK- DISTRIBUTION CHAMBER <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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<u>Risk of collapse of excavations</u>					
4	Sides of trench and hole excavations not exceeding 1,5m deep			m2	18
	A : 0	B : 18	E : 0	I : 0	
	M : 0	O : 0	P : 0	Q : 0	
	R : 0	S : 0	T : 0	V : 0	
	W : 0	X : 0	Z : 0		

Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density

5	Backfilling to trenches, holes, etc			m3	7
	A : 0	B : 7	E : 0	I : 0	
	M : 0	O : 0	P : 0	Q : 0	
	R : 0	S : 0	T : 0	V : 0	
	W : 0	X : 0	Z : 0		

Keeping excavations free of water

6	Keeping excavations free of all water other than subterranean water				Item
---	---	--	--	--	------

**REINFORCED CONCRETE**

20MPa/19mm concrete

7	Surface beds cast in panels			m3	0.3
	A : 0.0	B : 0.3	E : 0.0	I : 0.0	
	M : 0.0	O : 0.0	P : 0.0	Q : 0.0	
	R : 0.0	S : 0.0	T : 0.0	V : 0.0	
	W : 0.0	X : 0.0	Z : 0.0		

Grooves, channels, mortice , sinkings, etc in concrete

**SMOOTH FORMWORK (DEGREE OF ACCURACY I)**

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Smooth formwork to sides

8	Edges, risers, ends and reveals not exceeding 300mm high or wide as item 13/66	m	8
	A : 0      B : 8      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**REINFORCEMENT**

Fabric reinforcement

9	Steeledale Mesh standard square fabric mesh, nominal mass 3,95 kg/m <sup>2</sup> with nominal 8mm thick wires and 200 x 200mm pitch (code 395), complying with SANS 1024/2006 requirements, in sheets 2,4 x 6m long.	m2	2
	A : 0      B : 2      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**MASONRY**

Brickwork of NFP bricks in class II mortar

10	One brick walls	m2	6
	A : 0      B : 6      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Brickwork reinforcement

11	150mm Wide reinforcement built in horizontally	m	70
	A : 0      B : 70      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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**BRICKWORK SUNDRIES**

12	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	8
	A : 0      B : 8      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**PLASTERING**

Watertight cement plaster on brickwork

13	On walls	m2	4
	A : 0      B : 4      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**PLUMBING AND DRAINAGE**

uPVC pipes

14	110mm Pipes	m	4
	A : 0      B : 4      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Extra over uPVC pipes for fittings

15	110mm Tee	No	4
	A : 0      B : 4      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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	<u>Cover, etc</u>				
16	600 x 600mm Type 2A cast iron single seal manhole cover and frame	No	2		
	A : 0      B : 2      E : 0      I : 0				
	M : 0      O : 0      P : 0      Q : 0				
	R : 0      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 0				
17	Lifting key for manhole cover	No	2		
	A : 0      B : 2      E : 0      I : 0				
	M : 0      O : 0      P : 0      Q : 0				
	R : 0      S : 0      T : 0      V : 0				
	W : 0      X : 0      Z : 0				
	<b><u>BUDGETARY ALLOWANCE</u></b>				
	<u>Watertank and stand complete</u>				
18	Provide the sum of R 200 000,00 (Two hundred thousand rand only) for elevated water tank stand complete by Specialists.			Item	200 000,00
	A : 0.00      B : 0.00      E : 0.00      I : 0.00				
	M : 0.00      O : 0.00      P : 0.00      Q : 0.00				
	R : 0.00      S : 1.00      T : 0.00      V : 0.00				
	W : 0.00      X : 0.00      Z : 0.00				
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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Item No		Quantity	Rate	Amount
	<b><u>SECTION NO 4</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>FRENCH DRAINS</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>SITE CLEARANCE ETC</u></b>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2		89
	A : 0      B : 89      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0			
	<b><u>EXCAVATION, FILLING, ETC</u></b>			
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Holes	m3		38
	A : 0      B : 38      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0			
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
3	Soft rock	m3		2
	A : 0      B : 2      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0			
	<b>Carried to Collection</b>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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4	Hard rock	m3	4
	A : 0      B : 4      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
	<u>Extra over all excavations for carting away</u>		
5	Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor	m3	32
	A : 0      B : 32      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
	<u>Risk of collapse of excavations</u>		
6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	70
	A : 0      B : 70      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		
	<u>Keeping excavations free of water</u>		
7	Keeping excavations free of all water other than subterranean water		Item
	A : 0.00      B : 0.00      E : 0.00      I : 0.00 M : 0.00      O : 0.00      P : 0.00      Q : 0.00 R : 0.00      S : 1.00      T : 0.00      V : 0.00 W : 0.00      X : 0.00      Z : 0.00		
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site (not compacted)</u>		
8	On top of french drain as soil cover	m3	6
	A : 0      B : 6      E : 0      I : 0 M : 0      O : 0      P : 0      Q : 0 R : 0      S : 0      T : 0      V : 0 W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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**FILTER FABRIC**

"Kaytech Engineered Fabric" or similar approved laid in strict accordance to the manufacturer's instructions

9	"Kaymat U14" around stone filling in sub-soil drain trenches	m2	75
	A : 0      B : 75      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

20mm Graded stone filling or similar approved

10	In holes	m3	9
	A : 0      B : 9      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

200 - 300mm Diameter clean washed stone filling or similar approved by engineer

11	In holes	m3	23
	A : 0      B : 23      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

**WATERPROOFING**

One layer of 250 micron "Tarkon USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"

12	On top of pipes as protection of joints	m2	19
	A : 0      B : 19      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
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<u>uPVC pipes</u>			
13	110mm Inspection pipes	m	15
	A : 0      B : 15      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

Extra over uPVC pipes for fittings

14	110mm End cap	No	2
	A : 0      B : 2      E : 0      I : 0		
	M : 0      O : 0      P : 0      Q : 0		
	R : 0      S : 0      T : 0      V : 0		
	W : 0      X : 0      Z : 0		

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
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Item No		Quantity	Rate	Amount
<b><u>SECTION NO.4</u></b>				
<b><u>BILL NO. 10</u></b>				
<b><u>DRINKING FOUNTAINS, ETC.</u></b>				
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades				
<b><u>EXCAVATION, FILLING, ETC</u></b>				
<u>Excavation in earth not exceeding 2m deep</u>				
1	Holes	m3	0.3	
2	Excavate in pickable earth to reduce ground level below concrete slabs. including carting away of excavated materials	m3	5	
<u>Compaction of surfaces</u>				
3	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	3	
<u>Extra over all excavations for carting away</u>				
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	3	
<u>Risk of collapse of excavations</u>				
5	Sides of trench and hole excavations not exceeding 1,5m deep	m2	3	
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

			Item	
	<u>Keeping excavations free of water</u>			
6	Keeping excavations free of all water other than subterranean water			
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
7	Backfilling to trenches, holes, etc	m3	0.1	
8	Backfilling to around channels, etc.	m3	2	
	<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>			
	<u>25MPa/19mm concrete</u>			
9	Bases	m3	0.1	
10	Sloped channels	m3	1	
11	Dished channels	m3	5	
	<u>Grooves, channels, mortices, sinkings, etc. in concrete</u>			
12	Segmental channel with radius 290mm and minimum depth of 100mm on top of concrete, incl. all excavations, cart away etc.	m	40	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
13	Dished channels to falls	m2	3	
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u></b>			
	<u>Smooth formwork to sides</u>			
14	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	85	
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

**SUNDRY METALWORK**

Welded steel columns, etc.

15	100 x 50 x 6mm Thick hot dipped galvanised rectangular column size approximately 1225mm high 725mm high above ground finished with welded flat top with 15mm diameter hole for copper pipe (e/m) and 200 x 200 x 10mm thick base plate cast in concrete	No	3
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**PAINTWORK ETC TO NEW WORK**

**ON METAL**

Plascon Velvagio Satin to interior new mild steel. Surface to be clean and dry. Remove surface contaminants using Metalcare Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3 of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat Metalcare Mild Steel Primer (UC 501) with an overcoating time of 16 hours and finish with two coats Velvagio Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.

16	On rails, bars, pipes, etc	m2	1
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**WATER SUPPLIES**

Class 10 black HDPE high density polyethylene pipes with and including "Plasson" compression fittings

17	25mm Pipes laid in and including trenches not exceeding 1m deep	m	40
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Extra over class 10 HDPE pressure pipes for fittings with solvent welded joints

18	25mm Fittings	No	3
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19	25 x 15mm Reducing tee	No	1
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EXTERNAL WORKS

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Item No		Quantity	Rate	Amount
	<p><b><u>SECTION NO. 5</u></b></p> <p><b><u>BILL NO.1</u></b></p> <p><b><u>PROVISIONAL SUMS</u></b></p> <p>For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>NOTE: Tenderers are referred to the definition of general attendance on nominated sub-contractors given in Clause 9 of the Preliminaries</p> <p>NOTE: Under no circumstances may any Prime Cost - Provisional Amount, etc be extended at an amount lower than the amount given in the Bill</p>			
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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

THE FOLLOWING PROVISIONAL SUMS ARE FOR WORK TO BE EXECUTED BY SELECTED SUB-CONTRACTORS

The following Provisional Sums are for specialists work to be executed by a selected Sub-contractor who upon appointment in terms of the Conditions of Contract shall be deemed to be a Domestic Sub-Contractor to the Contractor

A Selected Sub-Contractor shall be a Sub-contractor executing work for which a sum of money is provided for in the Bills of Quantities or a Sub-contractor executing additional specialist work which arises as a result of an instruction by the Principal Agent/Engineer

Tender documents for such work shall be prepared by the Principal Agent/Engineer in consultation with and to the approval of the Contractor and such tender document shall be issued by the Principal Agent/Engineer to a list of tenderers agreed upon between the Principal Agent/Engineer and Contractor. Tenders shall be submitted to the Principal Agent/Engineer

The Selected Sub-contractor shall be chosen by the Principal Agent/Engineer and the Contractor, and the Contractor shall satisfy himself that such selected sub-contractor can meet the requirements of the Sub-Contract agreement and the Contractor shall inform the Principal Agent/Engineer accordingly

The procedure relating to the method of selection, obtaining of tenders, adjudication thereof and the appointment of the Selected Sub-contractor shall not create any contractual relationship between the Client and the Selected Sub-contractor

Mechanical Installation

1	Provide the sum of R 250 000 (Two hundred and fifty thousand rand only ) for Mechanical installations by specialist.	Item	250 000.00
2	Allow for profit on above if required	Item	
3	Allow for giving every facility to Specialists as described	Item	

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Bill No. 1  
PROVISIONAL SUMS

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

<u>Furniture, etc.</u>			
4	Provide the amount of R 500 000,00 (Five hundred thousand rand) for the supply and installation of furniture by Specialists (Admin, Library & Computer Lab)	Item	500 000.00
5	Allow for profit on above if required	Item	
6	Allow for giving every facility to Specialists as described	Item	
<u>Joinery Fittings, etc.</u>			
7	Provide the amount of R 600 000 ( Six hundred thousand rand) for the supply and installation of Joinery Fittings by Specialists	Item	600 000.00
8	Allow for profit on above if required	Item	
9	Allow for giving every facility to Specialists as described	Item	
<u>IT Equipments, etc.</u>			
10	Provide the amount of R 600 000.00 (Six hundred thousand rand) for the supply and installation of IT Equipments by Specialists	Item	600 000.00
11	Allow for profit on above if required	Item	
12	Allow for giving every facility to Specialists as described	Item	
<u>Signage</u>			
13	Provide the sum of R20 000,00 (twenty thousand rand) for signage by Specialists	Item	20 000.00
14	Allow for profit on above if required	Item	
15	Allow for giving every facility to Specialists as described	Item	
<b>Carried to Collection</b>			
Section No. 5 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>			R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

<u>Library Books etc</u>			
<u>Provide the amount of R 150 000.00 (One hundred and fifty thousand) for books by suppliers</u>			
16	Provide a sum of R 150 000 (One hundred and fifty thousand rand) for books by Specialists.	Item	150 000.00
17	Allow for profit on above if required	Item	
18	Allow for giving every to specialist as described	Item	
<u>Community Liaison Officer</u>			
19	Provide the sum of R 120 000,00 (One hundred and twenty thousand rand) for community liaison officer	Item	120 000.00
20	Allow for profit on above if required	Item	
21	Allow for giving every facility to Specialists as described	Item	
<u>Project Steering Committee</u>			
22	Provide the sum of R15 000,00 (fifteen thousand rand) for project steering committee	Item	15 000.00
23	Allow for profit on above if required	Item	
24	Allow for giving every facility to Specialists as described	Item	
<u>Fridges, crockery, cutlery, etc</u>			
25	Provide a sum of R 50 000 (fifty thousand rand) for fridges(Nutrition centre and Admin Block kitchen) cutlery and crockrey complete by Specialists	Item	50 000.00
26	Allow for profit on above if required	Item	
27	Allow for giving every to specialist as described	Item	
<u>Nutrition Equipments (Stainless steel)</u>			
28	Provide a sum of R 50 000 (fifty thousand rand) for the supply and installation of Nutrition Equipments complete by Specialists	Item	50 000.00
<b>Carried to Collection</b>			
Section No. 5 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>			R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

29	Allow for profit on above if required	Item	
30	Allow for giving every to specialist as described	Item	
	<u>Free standing Stoves and Gas Bottles, and Gas Bank</u>		
31	Provide the sum of R 60 000,00 (sixty thousand rand) for gas stoves, gas bottles and gas bank by Specialists including call out for training the end-user.	Item	60 000.00
32	Allow for profit on above if required	Item	
33	Allow for giving every facility to Specialists as described	Item	
	<u>Window Blinds, etc.</u>		
34	Provide the sum of R60 000 (sixty thousand rand) for the supply and installation of window blinds by Specialists	Item	60 000.00
35	Allow for profit on above if required	Item	
36	Allow for giving every facility to Specialists as described	Item	
	<u>Extractor Fans, etc.</u>		
37	Provide the sum of R 85 000,00 (eighty five thousand rand) for extractor fans by Specialists	Item	85 000.00
38	Allow for profit on above if required	Item	
39	Allow for giving every facility to Specialists as described	Item	
	<u>Borehole, etc.</u>		
40	Provide the amount of R 200 000.00 (two hundred thousand rand) for the drilling and equipping of a Borehole Complete with a cage for pumps by Specialists	Item	200 000.00
41	Allow for profit on above if required	Item	
	<b>Carried to Collection</b>		
	Section No. 5 PROVISIONAL SUMS Bill No. 1 PROVISIONAL SUMS <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>		R

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

42	Allow for giving every facility to Specialists as described  <u>Special Anti-Vandal Burglar proofing for computer lab and Library windows and doors</u>	Item	
43	Provide the amount of R 150 000 (One hundred and fifty thousand rand) for the supply and installation of Specialised anti-vandal burglar proofing by specialists	Item	150 000.00
44	Allow for profit on above if required	Item	
45	Allow for giving every facility to Specialists as described  <u>Relocation of Mobile Classroom, etc.</u>	Item	
46	Provide the amount of R 80 000 (eighty thousand rand) for the relocation of mobile classrooms by Specialists	Item	80 000.00
47	Allow for profit on above if required	Item	
48	Allow for giving every facility to Specialists as described  <u>Covered Carports etc.</u>	Item	
49	Provide the amount of R 200 000 (two hundred thousand rand) for the supply and installation of Carports by Specialists	Item	200 000.00
50	Allow for profit on above if required	Item	
51	Allow for giving every facility to Specialists as described	Item	
<b><u>WORK EXECUTED BY SEPARATE DIRECT SERVICE PROVIDERS</u></b>			

**Carried to Collection**

R

Section No. 5  
PROVISIONAL SUMS  
Bill No. 1  
PROVISIONAL SUMS  
**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

**The following work will be executed by Service Providers under direct agreement with the Employer. The Contractor is to accommodate these Service Providers and allow them to execute their work unhindered and allow them the use of water and toilet facilities. Damage caused by these Service Providers to work completed by the principal Contractor is to be recorded in detail to enable the Employer to counter-charge the direct Service Providers the cost of making good such damages.**

Occupational Health and Safety Consultant

52 Provide the sum of R350 000,00 (Three hundred and fifty thousand rand) for Occupational Health and Safety Consultant to be appointed by Employer.

Item 350 000.00

53 Allow for profit on above if required

Item

54 Allow for giving every facility to Specialists as described

Item

Social Facilitator, etc.

55 Provide the amount of R250 000.00 (Two hundred and fifty thousand rand) for the Social Facilitator

Item 250 000.00

56 Allow for profit on above if required

Item

57 Allow for giving every facility to Specialists as described

Item

**Carried to Collection**

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Section No. 5  
PROVISIONAL SUMS

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**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Section No. 5

PROVISIONAL SUMS

Bill No. 1

PROVISIONAL SUMS

**COLLECTION**

Total Brought Forward from Page No.

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**Carried Forward to Summary of Section No. 5**

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Section No. 5

PROVISIONAL SUMS

Bill No. 1

PROVISIONAL SUMS

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Item No		Quantity	Rate	Amount
	<b><u>SECTION NO 5</u></b>			
	<b><u>BILL NO 2</u></b>			
	<b><u>PROVISIONAL AMOUNTS ETC</u></b>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<b><u>PROVISIONAL SUMS FOR SELECTED SUB-CONTRACT WORKS</u></b>			
	<b><u>HOLES THROUGH WALLS</u></b>			
	<u>Holes</u>			
1	Leave or form opening through one brickwall for pipe n.e 100mm diameter	No	4	
2	Leave or form opening through one brickwall for pipe exceeding 100mm and n.e 200mm diameter	No	4	
	<b><u>SLEEVES</u></b>			
	<u>Plastic sleeves for pipes not exceeding 100mm diameter</u>			
3	Sleeve not exceeding 250mm long	No	5	
4	Sleeve exceeding 250mm and not exceeding 500mm long	No	5	
	<u>Plastic sleeves for pipes exceeding 100mm and not exceeding 200mm diameter</u>			
5	Sleeve not exceeding 250mm long	No	3	
6	Sleeve exceeding 250mm and not exceeding 500mm long	No	5	
	<b>Carried to Collection</b>			R
	Section No. 5 PROVISIONAL SUMS Bill No. 2 BUILDERS WORK <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

**HOLES ETC**

	<u>Core drilling of hole for pipe not exceeding 50mm diameter</u>		
7	300mm Reinforced concrete slab, beam, wall, etc	No	5
	<u>Core drilling of hole for pipe exceeding 50mm and not exceeding 100mm diameter</u>		
8	300mm Reinforced concrete slab, beam, wall, etc	No	5
	<u>Core drilling of hole for pipe exceeding 100mm and not exceeding 200mm diameter</u>		
9	300mm Reinforced concrete slab, beam, wall, etc	No	4

**Carried to Collection**

R

Section No. 5  
PROVISIONAL SUMS  
Bill No. 2  
BUILDERS WORK  
**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Section No. 5

PROVISIONAL SUMS

Bill No. 2

BUILDERS WORK

**COLLECTION**

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**Amount**

**Carried Forward to Summary of Section No. 5**

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Section No. 5

PROVISIONAL SUMS

Bill No. 2

BUILDERS WORK

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL**

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Section No. 5

PROVISIONAL SUMS

**SECTION SUMMARY - PROVISIONAL SUMS**

<b>Bill No</b>		<b>Page No</b>	<b>Amount</b>
1	PROVISIONAL SUMS	234	
2	BUILDERS WORK	237	
<b>Carried to Final Summary</b>			R
Section No. 5 PROVISIONAL SUMS <b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>			

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
DIKGALAOPENG VILLAGE  
SEKHUKHUNE DISTRICT**

Section No	<u>FINAL SUMMARY</u>	Page No	Amount
1	PRELIMINARIES	59	
2	ALTERATIONS	68	
3	BUILDING	177	
4	EXTERNAL WORKS	226	
5	PROVISIONAL SUMS	238	
	ELECTRICAL WORKS (ANNEXURE A)	Item	
	Sub Total 1 - BUILDING COSTS		R
	<b><u>CONTINGENCY SUM</u></b>		
	Contingencies, to be used as directed by the Principal Agent and deducted in whole or in part if not required	Item	836 720.78
	<b><u>SPECIAL CONDITIONS</u></b>		
	Fluctuations in cost	Item	853 814.86
	Sub total BUILDINGS (VAT excl.)		R
	Value Added Tax		R
	Sub Total (VAT INCL.) CARRIED TO TENDER FORM		R
	<b>Carried to Form of Tender</b>		R
	<b>COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL</b>		

**REPUBLIC OF SOUTH AFRICA**

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

**COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL  
LDPWRI-B/20353**

**ANNEXURE A  
ELECTRICAL WORKS BILLS OF  
QUANTITIES**

BILL NO. 1: LV NETWORK AND SITE WORKS					
ITEM	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
					R
<b>1.1</b>	<b>LV DISTRIBUTION CABLES</b>				
<b>1.1.1</b>	Supply and installation of 600/1000V PVC SWA PVC cables with copper conductors				
	a) 25 mm <sup>2</sup> x 4 core Cu conductor	m	110		
	b) 16 mm <sup>2</sup> x 4 core Cu conductor	m	90		
	c) 6 mm <sup>2</sup> x 4 core Cu conductor	m	70		
	d) 16 mm <sup>2</sup> x 2 core Cu conductor	m	165		
	e) 10 mm <sup>2</sup> x 2 core Cu conductor	m	40		
<b>1.1.2</b>	Supply and installation of Bare Copper Earth Wire (BCEW)				
	a) 16 mm <sup>2</sup> BCEW	m	110		
	b) 10 mm <sup>2</sup> BCEW	m	255		
	c) 6 mm <sup>2</sup> BCEW	m	40		
	d) 4 mm <sup>2</sup> BCEW	m	70		
<b>1.2</b>	<b>CABLE TERMINATIONS</b>				
<b>1.2.1</b>	Supply and installation of 600/1000V PVC SWA PVC cable terminations complete with cable lugs and earthing as required				
	a) 25 mm <sup>2</sup> x 4 core Cu conductor	each	4		
	b) 16 mm <sup>2</sup> BCEW	each	4		
	c) 16 mm <sup>2</sup> x 4 core Cu conductor	each	4		
	d) 16 mm <sup>2</sup> x 2 core Cu conductor	each	6		
	e) 10 mm <sup>2</sup> x 2 core Cu conductor	each	2		
	f) 6 mm <sup>2</sup> x 4 core Cu conductor	each	2		
	g) 10 mm <sup>2</sup> BCEW	each	10		
	h) 6 mm <sup>2</sup> BCEW	each	2		
	i) 4 mm <sup>2</sup> BCEW	each	2		
<b>1.3</b>	<b>EXCAVATIONS</b>				
	Excavate of trenches 1 m deep, separating of stones and soil, rocks etc. leveling of trench beds (LV/SL - 0.8m deep x 0.6m wide), refill, compacting and reparation of all surfaces to the original finish.				
	a) Excavating in Earth (Pickable)	m <sup>3</sup>	285		
	b) Supply and Install approved 75mm x 150mm Red & Yellow Warning Tape for Underground Electrical Cables. Tape shall be buried about 300mm below the Ground Level.	each	475		
<b>1.4</b>	<b>SLEEVE</b>				
<b>1.4.1</b>	Supply and Install the following sleeves as indicated on the drawings				
	a) 110 mm Ø Kabelflex uPVC Sleeve	m	150		
	b) 110 mm Ø slow bend	each	8		
<b>1.5</b>	<b>EARTHING</b>				
<b>1.5.1</b>	50 mm <sup>2</sup> BCEW	m	120		
<b>1.5.2</b>	1.2 m copper bonded earth rod	each	24		
<b>1.5.3</b>	Supply and install 20 mm Ø steel conduit plugged on the wall (complete with associated conduit straps and nails).	m	50		
<b>1.5.5</b>	Supply and install of earthing test joint (point)	each	10		
<b>1.5.6</b>	Ensure all metal pipes, roof structures, etc. are bonded with copper earth straps and earthed. There should be continuity on all metals.	each	1		
<b>1.5.7</b>	Testing of soil resistivity, issuing of soil resistivity, and earthing report.	each	1		
<b>1.6</b>	<b>DISTRIBUTION BOARDS</b>				
	Supply and installation of flush-mount distribution boards listed below, as shown on the drawings. All the Distribution boards are special manufactured, and shop drawings needs to be submitted to the LDPWRI Electrical Engineer for approval, before manufacturing.				
<b>1.6.1</b>	DB-Admin for Administration Block, complete with all the circuit breakers - as per single line diagram	each	1		

1.6.2	DB-Guard for Guard House, complete with all the circuit breakers as per single line diagram	each	1		
1.6.3	DB-Cor for Computer Centre and Library, complete with all the circuit breakers - as per single line diagram	each	1		
1.6.4	DB-Nutr for Nutrition Centre, complete with all the circuit breakers as per single line diagram	each	1		
<b>TOTAL CARRIED FORWARD TO SUMMARY</b>					

<b>BILL NO. 2: ADMINISTRATION BLOCK</b>					
ITEM	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
					R
<b>2.1</b>	<b>TRUNKING</b>				
2.1.1	Supply and installation of P9000 trunking installed above ceiling for the distribution of small power wiring (Isolators), lighting, complete with cover				
	a) P9000 Trunking	m	48		
	b) P9000 Trunking bends	each	3		
	c) Trunking T-Pieces	each	3		
<b>2.2</b>	<b>CONDUITS</b>				
2.2.1	Supply and install conduit cast into concrete or screed, chased into concrete or brickwork for the electrical including couplings in accordance with the specification.				
	a) 20 mm Ø PVC Conduit	m	1000		
	b) 20 mm Round PVC Drawbox with Cover	each	35		
<b>2.3</b>	<b>BACKBOXES</b>				
2.3.1	Supply and install 100 x 100mm Galvanised backbox chased into new Brick and plaster wall	each	16		
2.3.2	Supply and install 100 x 50mm Galvanised backbox chased into new Brick and plaster wall	each	18		
<b>2.4</b>	<b>CONDUCTORS</b>				
2.4.1	Supply and install the following 600/ 1000 V PVC insulated General Purpose Housewire Conductors on the conduit, walls, as specified on drawings				
	a) 2.5 mm <sup>2</sup>	m	650		
	a) 4 mm <sup>2</sup>	m	800		
2.4.2	Supply and installation of the following Bare Copper Earth Conductors into trunking and conduit including terminations on both ends, to specification.				
	a) 2.5 mm <sup>2</sup>	m	725		
2.4.3	Supply and installation of galvanised draw wire	m	200		
<b>2.5</b>	<b>SOCKET OUTLETS</b>				
2.5.1	Supply and install switched 16A 3-Pin Standard Socket Outlet with 3-Pin Euro Plug (SANS 164-2), complete with metal covers, Similar to Crabtree or equivalent approved by Electrical Engineer.	each	7		
2.5.2	Supply and Install the following galvanised steel epoxy coated Power Skirting, complete with associated accessories and covers and end caps				
	a) 2 Compartment, 2 Tier Power Skirting	m	48		
	b) Single, Normal, 3-Pin, 16A Switched Standard Socket Outlets	each	11		
	c) Single, Dedicated, 3-Pin, 16A Switched Standard Socket Outlets	each	11		
	d) Telephone/Data Outlets Cradles	each	11		
	e) Single, Normal, 3-Pin, 16A Switched Euro Socket Outlets	each	11		
	f) Single, Dedicated, 3-Pin, 16A Switched Euro Socket Outlets	each	11		
<b>2.6</b>	<b>LIGHTING INSTALLATIONS</b>				
2.6.1	Supply and installation of the following light fittings, complete with lamps				
	a) Type S1: 1200mm long surface mount open channel light fittings, complete with 2x28 W T8 LED tubes.	each	19		
	b) Type B2: Bulkhead complete with 20 W LED	each	11		
2.6.2	Supply and install the following flush mounted light switches complete with metal covers, Similar to Crabtree or equivalent approved by Electrical Engineer.				
	a) 1 Lever, 1 Way Light Switch	each	12		
	b) 1 Lever, 2 Way Light Switch	each	1		
	c) 2 Lever, 1 Way Light Switch	each	2		
2.6.3	Supply and install Photocell, mounted on the external wall of the building, similar to Royce Thompson or equivalent approved by Electrical Engineer.	each	1		

2.7	<b>ISOLATORS</b>				
2.7.1	Supply and install isolators on the positions indicated a) 30 A Double pole	each	6		
2.8	<b>TELECOMMUNICATION INSTALLATION</b>				
2.8.1	Supply and install 500 x 500 Telephone DB with wooden back board, 16A 3-Pin Standard Socket Outlet with 3-Pin Euro Plug mounted on the board, on the position indicated on the drawing	each	1		
<b>TOTAL CARRIED TO SUMMARY</b>					

<b>BILL NO. 3: RENOVATIONS OF 4 CLASSROOM BLOCK</b>					
ITEM	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
					R
3.1	<b>CONDUITS</b>				
3.1.1	Supply and install conduit cast into concrete or screed, chased into concrete or brickwork for the electrical including couplings in accordance with the specification.				
	a) 20 mm Ø PVC Conduit	m	500		
	b) 20 mm Round PVC Drawbox with Cover	each	40		
3.2	<b>CONDUCTORS</b>				
3.2.1	Supply and install the following 600/ 1000 V PVC insulated General Purpose conductors (Housewire) on the conduit, walls, as specified on drawings				
	a) 2.5 mm <sup>2</sup>	m	600		
	b) 4 mm <sup>2</sup>	m	200		
3.2.2	Supply and installation of the following Bare Copper Earth Conductors into trunking and conduit including terminations on both ends, to specification.				
	a) 2.5 mm <sup>2</sup>	m	400		
3.3	<b>SOCKET OUTLETS</b>				
3.3.1	Supply and install the following socket covers only (metal)				
	a) Supply and install switched 16A 3-Pin Standard Socket Outlet with 3-Pin Euro Plug (SANS 164-2), complete with metal covers	each	8		
3.4	<b>LIGHTING INSTALLATIONS</b>				
3.4.1	Supply and installation of the following light fittings, complete with lamps				
	a) Type S1: 1200mm long surface mount open channel light fittings, complete with 2 x 28 W T5 LED tubes	each	24		
	b) Type B2: Bulkhead complete with 20 W LED	each	8		
3.4.2	Supply and install the following metal covers, Similar to Crabtree or equivalent approved by Electrical Engineer.				
	a) 1 Lever, 1 Way Light Switch	each	6		
3.4.3	Supply and install Photocell, mounted on the external wall of the building, similar to Royce Thompson or equivalent approved by Electrical Engineer.	each	1		
<b>TOTAL CARRIED FORWARD TO SUMMARY</b>					

<b>BILL NO. 4: NUTRITION CENTRE, GUARD HOUSE AND TOILETS</b>					
ITEM	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
					R
4.1	<b>CONDUITS</b>				
4.1.1	Supply and install conduit cast into concrete or screed, chased into concrete or brickwork for the electrical including couplings in accordance with the specification.				
	a) 20 mm Ø PVC Conduit	m	800		
	b) 20 mm Round PVC Drawbox with Cover	each	20		
4.2	<b>BACKBOXES</b>				
4.2.1	Supply and install 100 x 100mm Galvanised backbox chased into new Brick and plaster wall	each	15		

4.2.2	Supply and install 100 x 50mm Galvanised backbox chased into new Brick and plaster wall	each	11		
4.3	<b>CONDUCTORS</b>				
4.3.1	Supply and install the following 600/ 1000 V PVC General Purpose Housewire insulated conductors on the conduit, walls, as specified on drawings				
	a) 2.5 mm <sup>2</sup>	m	450		
	a) 4 mm <sup>2</sup>	m	150		
4.3.2	Supply and installation of the following Bare Copper Earth Conductors into trunking and conduit including terminations on both ends, to specification.				
	a) 2,5 mm <sup>2</sup>	m	300		
4.4	<b>SOCKET OUTLETS</b>				
4.4.1	a) Supply and install switched 16A 3-Pin Standard Socket Outlet with 3-Pin Euro Plug (SANS 164-2), complete with metal covers	each	13		
4.5	<b>LIGHTING INSTALLATIONS</b>				
4.5.1	Supply and installation of the following light fittings, complete with lamps				
	a) Type S1: 1200mm long surface mount open channel light fittings, complete with 2x24 W T5 LED tubes.	each	17		
	b) Type B2: Bulkhead complete with 20 W LED	each	27		
4.5.2	Supply and install the following flush mounted socket outlets and switches, as specified, in the backboxes measured in item 5.2				
	a) 1 Lever, 1 Way Light Switch	each	8		
	b) 2 Lever, 2 Way Light Switch	each	3		
4.5.3	Supply and install Photocell, mounted on the external wall of the building, similar to Royce Thompson or equivalent approved by Electrical Engineer.	each	3		
4.6	<b>ISOLATORS</b>				
4.6.1	Supply and install isolators on the positions indicated				
	a) 30 A Double pole	each	2		
<b>TOTAL CARRIED TO SUMMARY</b>					

BILL NO. 5: LIBRARY AND COMPUTER CENTRE					
ITEM	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
					R
5.1	<b>CONDUITS</b>				
5.1.1	Supply and install conduit cast into concrete or screed, chased into concrete or brickwork for the electrical including couplings in accordance with the specification.				
	a) 20 mm Ø PVC Conduit	m	2000		
	b) 20 mm Round PVC Drawbox with Cover	each	40		
5.2	<b>CONDUCTORS</b>				
5.2.1	Supply and install the following 600/ 1000 V PVC General Purpose Housewire insulated conductors on the conduit, walls, as specified on drawings				
	a) 2.5 mm <sup>2</sup>	m	1600		
	a) 4 mm <sup>2</sup>	m	600		
5.2.2	Supply and installation of the following Bare Copper Earth Conductors into trunking and conduit including terminations on both ends, to specification.				
	a) 2,5 mm <sup>2</sup>	m	1100		
5.2.3	Supply and installation of galvanised draw wire	m	200		
5.3	<b>SOCKET OUTLETS</b>				
5.3.1	Supply and install the following metal socket outlets as specified				
	a) Switched 16A 3-Pin Standard Socket Outlet with 3-Pin Euro Plug (SANS 164-2), complete with metal covers	each	17		
	b) Telephone and Data Cradles	each	4		
5.3.2	Supply and install the following galvanised steel epoxy coated Power Skirting, complete with associated accessories and covers and end caps				
	a) 2 Compartment, 2 Tier Power Skirting	m	68		
	b) Single, Switched, Normal Socket Outlets	each	52		
	c) Single, Switched, Dedicated Socket Outlets	each	52		

	d) Telephone/Data Outlets Cradles	each	52		
	e) Single, Normal, 3-Pin, 16A Switched Euro Socket Outlets	each	26		
	f) Single, Dedicated, 3-Pin, 16A Switched Euro Socket Outlets	each	26		
<b>5.4</b>	<b>LIGHTING INSTALLATIONS</b>				
<b>5.4.1</b>	Supply and installation of the following light fittings, complete with lamps, approved by the Electrical Engineer required, before bulk purchase.				
	a) Type S1: 1200mm long surface mount open channel light fittings, complete with 2x28 W T5 LED tubes.	each	35		
	b) Type B2: Bulkhead complete with 20 W LED	each	17		
<b>5.4.2</b>	Supply and install the following flush mounted socket outlets and switches, as specified, in the backboxes measured above.				
	a) 1 Lever, 1 Way Light Switch	each	8		
	b) 2 Lever, 1 Way Light Switch	each	3		
<b>5.4.3</b>	Supply and install Photocell, mounted on the external wall of the building, similar to Royce Thompson or equivalent approved by Electrical Engineer.	each	2		
<b>5.5</b>	<b>ISOLATORS</b>				
<b>5.5.1</b>	Supply and install isolators on the positions indicated				
	a) 30 A Double pole	each	8		
<b>CARRIED TO SUMMARY</b>					

<b>BILL NO. 6: PROVISIONAL AMOUNT</b>					
ITEM	DESCRIPTION	UNIT	QTY		AMOUNT
					R
<b>6.1</b>	Allow the sum of R100,000.00 (One hundred thousand only) for energizing of the 25 kVA 11 kV/400 V transformer with conventional meter, and the incurred Eskom charges.				100 000,00
	a) Allowance for Profit				
	b) Allowance for Attendance				
<b>6.2</b>	Allow the sum of R150,000.00 (One hundred Fifty thousand Rands only) for the installation of CCTV surveillance system at Library and Computer Centre, Administration Block, Nutrition Centre, and Guard House				150 000,00
	a) Allowance for Profit				
	b) Allowance for Attendance				
<b>6.3</b>	Allow the sum of R 20,000.00 (Twenty thousand Rands only) for testing of the installations and issuing of Certificates of Compliance				20 000,00
<b>6.4</b>	Allow the sum of R170,000.00 (One hundred Seventy thousand Rands only) for Supply and installation of 15 m scissor-type high mast complete with concrete foundation, 4 x 250 W LED IP65 Flood lights (Similar to Beka or Equivalent approved), controlled with a photocell sensor switch (Similar or equivalent to Roy Thompson), and issuing of warranties, manuals, test cubes for foundation, and certificate of compliance.				170 000,00
	a) Allowance for Profit				
	b) Allowance for Attendance				
<b>TOTAL CARRIED FORWARD TO SUMMARY</b>					

<b>BILL NO. 7: BUDGETARY ALLOWANCE</b>					
ITEM	DESCRIPTION	UNIT	QTY		AMOUNT
					R
<b>7.1</b>	Allow the sum of R15,000 (Fifteen Thousand Rands only) for Installation and/or supply of a main distribution kiosk, as specified, complete with concrete plint, in the position indicated on the drawing/shown by the LDPWRI Electrical Engineer and addition of breakers where necessary (100 A MCCB 15 kA 3p & 100 A MCB 5 kA 3p, 80 A 5kA 3p & 30 A MCB 5 kA 3p, 10 A MCB kA 1p-toilet, 10A MCB 1p highmast, 30 % spare)				15 000,00
<b>TOTAL CARRIED FORWARD TO SUMMARY</b>					

	<b>BILLS OF QUANTITIES: SUMMARY PAGE</b>	<b>TOTAL</b>
1	BILL NO. 1: LV NETWORK AND SITE WORKS	
2	BILL NO. 2: ADMINISTRATION BLOCK	
3	BILL NO. 3: RENOVATIONS OF 4 CLASSROOM BLOCK	
4	BILL NO. 4: NUTRITION CENTRE, GUARD HOUSE AND TOILETS	
5	BILL NO. 5: LIBRARY AND COMPUTER CENTRE	
6	BILL NO. 6: PROVISIONAL AMOUNT	
7	BILL NO. 7: BUDGETARY ALLOWANCE	R15 000,00
	<b>Total</b>	

## **PART C3 SCOPE OF WORKS**

## **SCOPE OF WORKS**

**BID NUMBER: LDPWRI-B/20353**

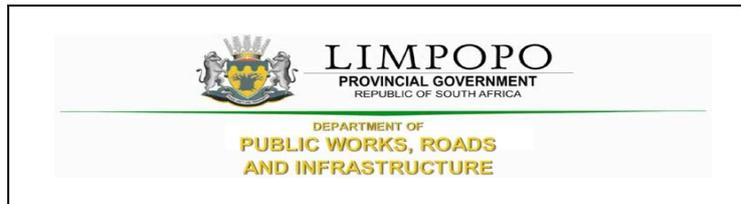
APPOINTMENT OF A CONTRACTOR FOR THE COMPLETION OF NUTRITION CENTRE, SMALL ADMINISTRATION BLOCK, LIBRARY AND COMPUTER CENTRE COMBO, 6 SEATER WATERBORNE TOILETS, GUARD HOUSE, RENOVATION OF 3 CLASSROOMS AND 16 ENVIROLOO TOILETS, STEEL PALISADE FENCE, BOREHOLE EQUIPPING AND EXTERNAL WORKS AT NALEDI YA MESO SECONDARY SCHOOL IN SEKHUKHUNE DISTRICT



## **PART C3.1: SPECIAL NOTES TO BIDDERS**

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

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

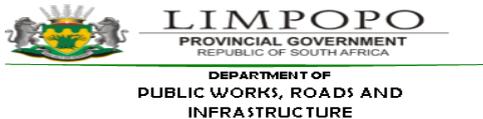


## **PART C3.2: OHS SPECIFICATIONS**

 <p><b>LIMPOPO</b> PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA</p> <hr/> <p>DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE</p>	<p><b>OHS Specification Completion of new facilities, refurbishment and external works at Naledi Ya Meso Secondary school in Sekhukhune district</b></p>	<b>Project Number</b>
		<b>LDPWRI-B/20353</b>
		<b>Page Number</b>
		<b>Page 1 of 42</b>

**OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION FOR COMPLETION OF  
NEW FACILITIES, REFURBISHMENT AND EXTERNAL WORKS AT NALEDI YA  
MESO SECONDARY IN SEKHUKHUNE DISTRICT**

**PREPARED BY:**



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

**43 Church Street  
Polokwane  
0700**

Project Name: **Completion of new facilities, refurbishment and external works at Naledi Ya Meso Secondary.**

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

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

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

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

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

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

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

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

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

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## 1. INTRODUCTION AND BACKGROUND

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

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

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

### **OMISSIONS FROM THIS SHE SPECIFICATION**

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

## 2. REFERENCES

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

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

Or any other Act passed in substitution of the abovementioned

### 3. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM ELEMENTS

#### 3.1 Interpretations

##### 3.1.1 Application

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

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

##### 3.1.2 New Construction Regulations 2014

New construction Regulations 2014 have been promulgated on the 7<sup>th</sup> August 2014.

### 4. DUTIES OF THE DESIGNER

1) The designer of a structure must —

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

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

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

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

## 5. PRINCIPAL CONTRACTOR

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

## 5.1 Principal Contractor and Contractor Supervision

(1) A Principal Contractor must—

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

information concerning the completed structure;

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

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

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

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

## 5.2 Management and Supervision

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

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

### **5.3 Principal Contractor and Contractor HSE Practitioner**

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

### **5.4 Principal and Contractor employees on the Project**

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

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

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

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

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

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

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

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

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

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

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

## **6. MINIMUM ADMINISTRATIVE REQUIREMENTS**

### **6.1 Notification to Commence Construction Work (CR4)**

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

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

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

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

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

mechanical soundness of all construction related equipment and plant.

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

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

#### **6.5 Health and Safety Organogram**

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

#### **6.6 Preliminary Hazard Identification and Risk Assessments (CR 9)**

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

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

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

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

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

The Issue Based Risk Assessment shall include, at least:

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

## **6.7 General Record Keeping**

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

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

## 6.8 Injury /Incident Reporting and Investigation

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

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

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

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



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

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

Or where:

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

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

## 6.9 Permits and way leaves

Permits may include the following:

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

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

## 6.10 Preparation of Health & Safety Documentation (CR 7)

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

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

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

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

## 6.11 Offences and Penalties

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

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

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

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

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

### **6.13 Principal Contractor / Contractor - Competency Assessment**

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

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

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

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

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

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

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

### **6.14 Costs for OHS -Compliance (CR 7)**

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

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

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

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

### **6.15.1 Introduction:**

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

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

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

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

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

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

## **6.16 Communication and Management of the work**

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

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

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

## **7. CLIENT IDENTIFIED HAZARDS AND POTENTIALLY HAZARDOUS SITUATIONS**

### **7.1 Client identified Hazards**

#### **7.2**

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

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

### **7.3 Unforeseeable Hazards**

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

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

## **8. SITE OPERATIONAL REQUIREMENTS**

### **8.1 Construction Health & Safety Officer (CR8.5)**

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

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

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

### **8.3 Health and Safety Committees (Section 19)**

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

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

### **8.4 Health and Safety Training**

#### **8.4.1 Induction**

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

#### **8.4.2 Awareness**

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

#### **8.4.3 Competence**

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

### **8.5 Health & Safety Audits, Monitoring and Reporting**

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

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

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

### **8.6 Emergency Procedures**

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

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

8.6.1 List of key competent personnel;

8.6.2 Details of emergency services;

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

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

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

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

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

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

### **8.8 Personal Protective Equipment (PPE) and Clothing**

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

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

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

### **8.9 Occupational Health and Safety (OHS) Signage**

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

### **8.10 Public and Site Visitor Health & Safety**

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

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

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

## **8.11 Minimum Environmental Requirements**

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

### **8.11.1 Water Use and Disposal:**

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

### **8.11.1 Storm Water Drains:**

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

### **8.11.2 Sewerage System**

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

### **8.11.3 Solid Waste Disposal**

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

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

#### **8.11.4 Discharges to Atmosphere**

8.11.4.1 Nothing will be burnt on site.

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

#### **8.11.5 Reporting of Environmental Incidents**

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

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

### **8.12 Access to Site**

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

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

#### **8.12.1 Security on Site**

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

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

### **8.13 Hours of Work**

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

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

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

8.13.3 Have fatigue management plan in place

## 8.14 Lighting

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

## 9 PHYSICAL REQUIREMENTS

### 9.1 Erection of Hoarding

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

### 9.2 Traffic Diversions

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

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

### 9.3 Edge Protection, Barricading and Penetrations (CR 10)

A Contractor must ensure that—

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

**Note: Danger tape does not represent barricading.**

### 9.4 Housekeeping (CR 27)

The Contractor to ensure that:

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

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

#### **9.5 Stacking & Storage (Construction Regulation 28)**

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

#### **9.6 Fire Extinguishers and Fire Fighting Equipment (CR 29)**

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

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

A Contractor must—

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

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

Fall prevention and fall arrest equipment are —

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

## **9.8 Scaffolding (CR 16 / SANS 10085 - 1)**

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

## **9.9 Roof work**

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

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

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

## 9.10 Severe Weather Plan

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

## 9.11 Structures (Construction Regulation 11)

The Contractor will ensure that in terms of the Construction Regulations

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

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

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

No structure is overloaded to the extent where it becomes unsafe

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

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

## **10 PLANT, MACHINERY AND EQUIPMENT**

### **10.1 Construction Vehicles & Mobile Plant (CR 23)**

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

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

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

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

### **10.2. Bulk Earthworks and the Haulage of ground**

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

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

Examples are:

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

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

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

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

### **10.4 Hired Plant and Machinery**

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use and complies with the minimum legislated requirements. The necessary requirements as stipulated by the OHS Act and Construction Regulations 2014 shall apply.

The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file.

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

### **10.5 Formwork and Support Work**

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

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

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

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

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

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

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

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

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

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

#### **10.7 Ladders (GSR 13)**

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

#### **10.8 Driven Machinery**

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

#### **10.9 Electrical Installations and Portable Electrical Tools (CR 24)**

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

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

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

#### **10.10 Electrical & Mechanical Lockout**

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

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

#### **10.11 Cantilever Loading Platforms**

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

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

## **10.12 Waste Chutes**

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

## **10.13 Explosive Actuated Fastening Devices (CR 21)**

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

A Contractor must ensure that —

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

## **11. OCCUPATIONAL HEALTH**

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

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

### **11.2 Noise Induced Hearing Loss (GNR 307 7<sup>th</sup> March 2003) refers**

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

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

### **11.3 Ergonomics**

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

### **11.4 Hazardous Chemical Substances (HCS)**

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

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

### **11.5 Construction Employees' Facilities (CR 30)**

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

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

#### **11.6 Alcohol and other Drugs**

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

#### **11.7 Reporting on occupational health issues**

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

#### **11.8 Occupational health medicals**

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

### **12. ANNEXURES**

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

**Annexure A - Assignment of responsible persons**

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

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

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

**Annexure B - Safe work procedures/method statements required**

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

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

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

**Annexure C - Compliance submission requirements**

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

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

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

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

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

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

## **Annexure D - Typical safety file index and registers**

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

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



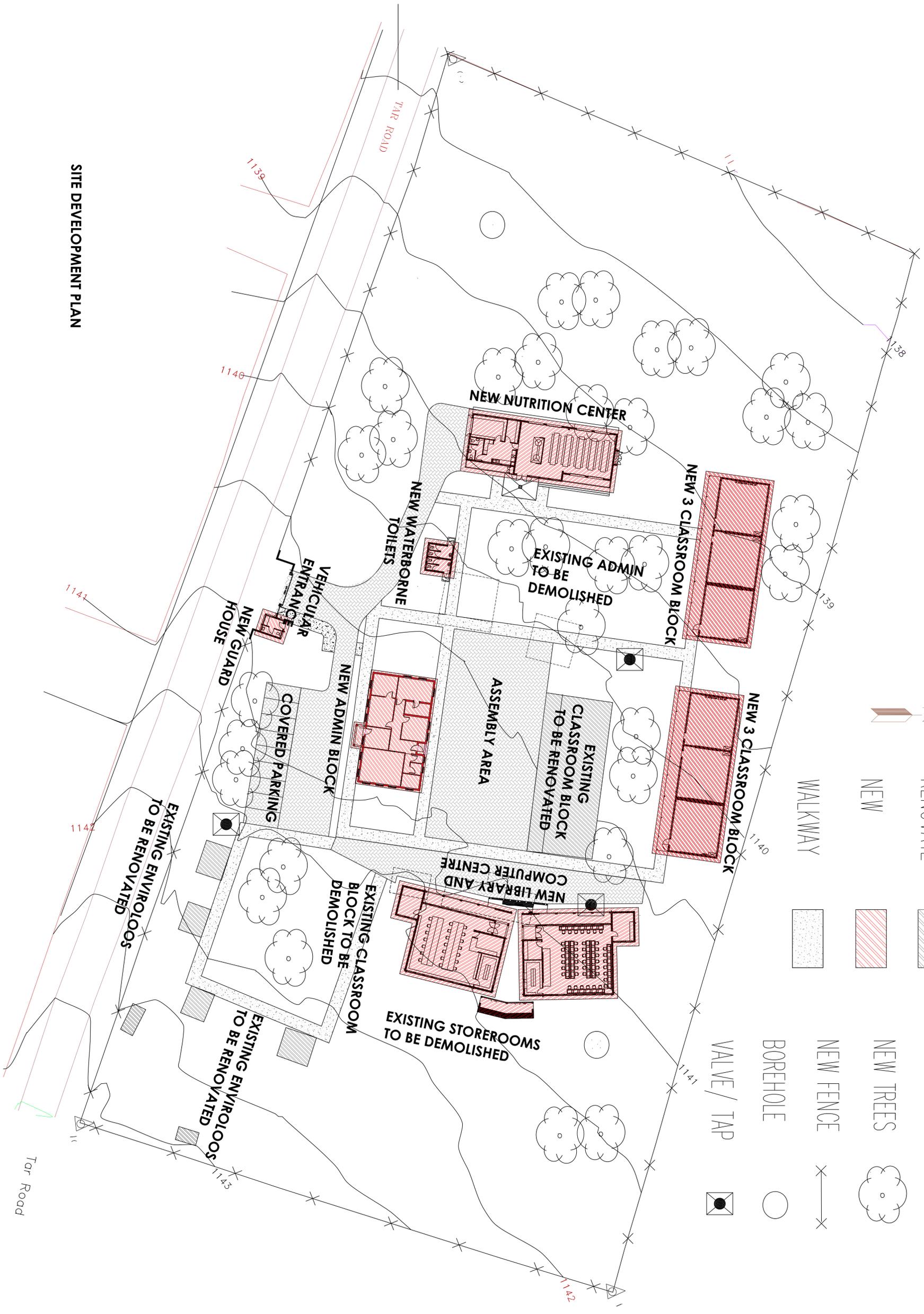
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## **PART C4 SITE INFORMATION**

**NOTES :**

- 1) Workmanship to comply with Standard Specifications of materials and methods to be used - SABS 0400
- 2) Light Switches in Buildings shall be at 1200 mm above FFL
- 3) All electrical work shall be in accordance with SABS 014
- 4) Utility positions to be determined as per site prescribed overall drainage (design) scale evident on all exposed bases (and of all SABS & other drawings)
- 5) 60-90 mm mineral wool insulation to be installed where there are ceilings in all areas that do not have ceilings to be installed with wire supports in 100 mm centres
- 6) All doors to be 2100 mm high
- 7) West Facing Facades to have aluminium aluminium louvers from below 1000 mm to 2100 mm
- 8) Tissues to be designed in accordance with SABS 0400 & approved by Project Engineers



**SITE DEVELOPMENT PLAN**

**SIGNATURE TABLE**

DISCIPLINE	CLIENT	DATE
PLANNING		
ENVIRONMENTAL OFFICER		
ROADS ENGINEER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

**REVISIONS**

REV. NO.	DATE	DESCRIPTION



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DEPARTMENT OF  
PUBLIC WORKS, ROADS & INFRASTRUCTURE

**INSTITUTION**  
NALEDI YA MESO SECONDARY SCHOOL

**SERVICE**  
RESTORATIVES, REPAIRS & ADDITIONS

**CONTRACT - SECTION**  
DOCUMENTATION & PROCUREMENT

**DISCIPLINE**  
ARCHITECTURAL

**PROJECT STAGE**  
4

**WORK DESCRIPTION - SUB-DIVISION**  
TENDER DRAWING

**DRAWING DESCRIPTION**  
SITE DEVELOPMENT PLAN

**FILE NO.**

**DESIGN**

**SCALE**  
1:100

**DATE**

**CONTRACTOR**

**CONSULTANT**

**CONTRACT NUMBER**  
NWM-SDP-01

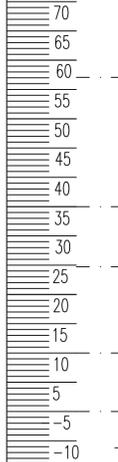
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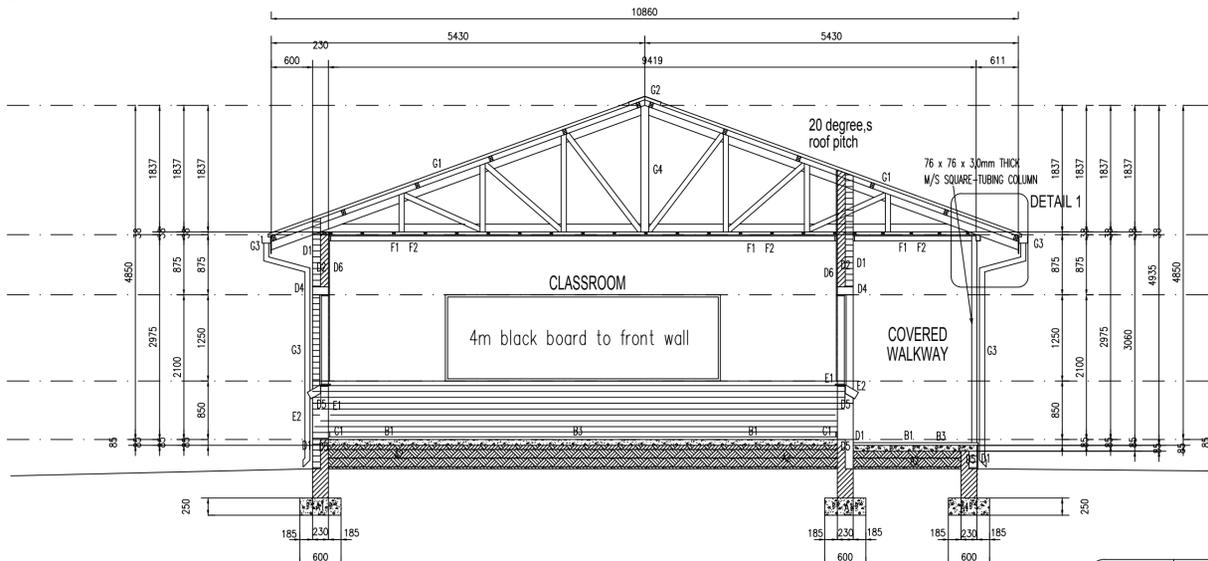
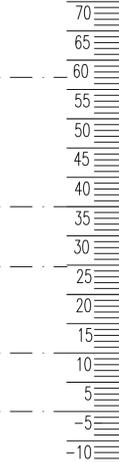
## **C4.1 DRAWINGS**

# **ARCHITECTURAL DRAWINGS**

1 BRICKCOURSE  
= 85mm



1 BRICKCOURSE  
= 85mm



**SECTION AA:**  
**Scale 1:50.**

**WINDOW SCHEDULE:**

- W1 - CAT. No. : STANDARD MILDSTEEL SCHOOLTYPE CENTRE PIVOT MILDSTEEL WINDOW, CODE - 5 / 2 (NY 1143&846 & x 1143 x 480)
- GLAZING : 3mm CLEAR FLAT GLASS FIXED WITH GLAZING PUTTY PUTTY TO RECEIVE PAINT FINISH TO MATCH WINDOW FRAME
- FINISH : 5mm THICK SECURED GLASS FOR WINDOW CODE 3 & 4
- NO. OF WINDOWS : 27 (TWENTY SEVEN) PROVIDE BURGLAR BARS OUT OF 12 x 12mm M/S SQUARE SOLID BARS TO LINE UP WITH VERTICAL & HORIZONTAL SECTIONS OF WINDOWS - FINISH DETD FRAME

**DOOR SCHEDULE:**

- D1 FRAME : "NY 914 CLASSROOM COMBO" COMBINATION DOOR FRAME WITH SECURITY GATE (BOTH OPENING OUT), SUITABLE FOR 230mm WALLS. FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL. COLOUR AS PER ARCHITECT.
- DOOR : 914(2032x44mm) SOLID R & F PANEL MERANTI DOOR WITH MASONITE BRACING - TO RECEIVE 3 COATS VARNISH.
- HINGES : 3 x PARLAMENT HINGES.
- LOCKSET : "SOLID BLESROK" 460/315 2-LEVER LOCKSET.
- NO. OF DOORS : 3 (THREE) - 1 (ONE) - 2

NOTE: DOOR D1: NY 914 CLASSROOM COMBO COMBINATION DOOR FRAME WITH SECURITY GATE (BOTH OPENING OUT) CONSISTING OF:

- FRAME FOR DOOR 914 x 2032mm HIGH FITTED WITH THREE PARLAMENT HINGES.
- SINGLE SECURITY GATE AND FRAME, GATE 914 x 2032mm HIGH OVERALL FORMED OF 25 x 25 x 2mm TUBULAR SECTION FRAME WITTED AND WELDED AT ANGLES AND TWO 25 x 25 x 2mm TUBULAR SECTION HORIZONTAL MIDDLE RAILS, GATE FILLED WITH 12 x 12mm SQUARE SECTION VERTICAL RAILS AT 100mm CENTRES AND FITTED WITH LOCKING BOLT SUITABLE FOR PADLOCK, FRAME FORMED OF 25 x 38 x 2mm TUBULAR SECTION STILES AND TOP RAIL WITTED AND WELDED AT ANGLES AND FITTED WITH THREE HINGES WELDED TO GATE AND FRAME, FRAME FACTORY WELDED AT MAXIMUM 250mm CENTRES TO DOOR FRAME

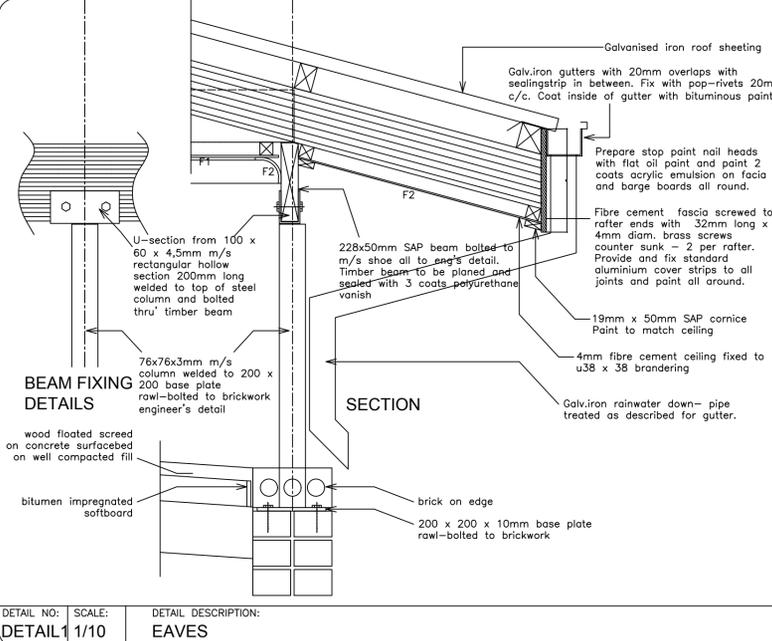
**NOTES :**

- 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 700 mm Build in Balustrade
- 4) Gully positions to be determined as per site prescribed overall drainage design
- 5) 2 coats sealant on all exposed trusses (sand off all SABS & other markings)
- 6) 50 mm mineral wool insulation to be installed where there are ceilings
- 7) Blown plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 7) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 8) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

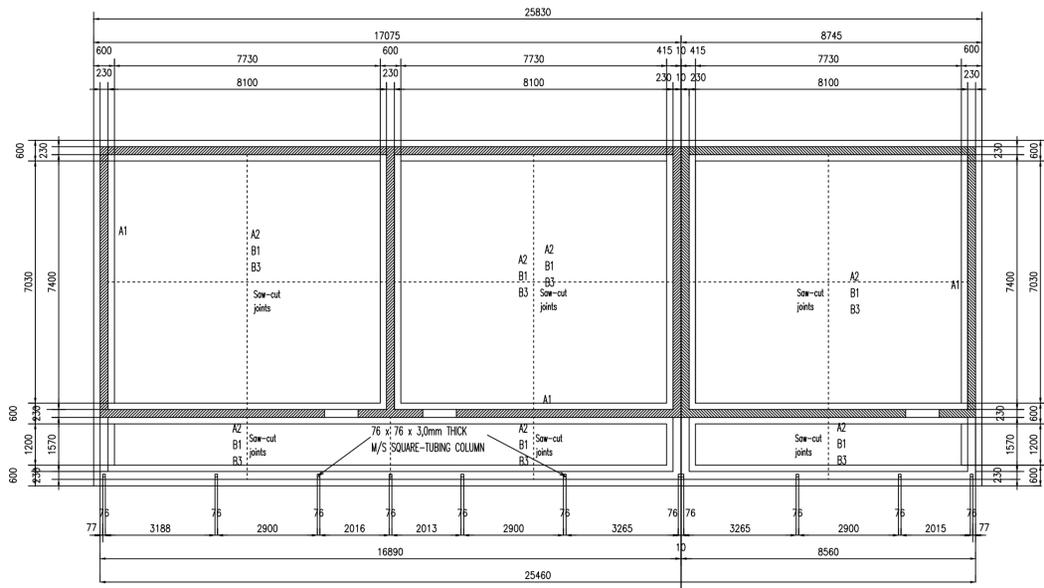
- ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE PRIOR TO COMMENCING SETTING OUT, WORKSHOP DRAWINGS OR CONSTRUCTION.
- FIGURED DIMENSIONS ONLY TO BE USED.
- DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE REPORTED TO ARCHITECTS IMMEDIATELY THEY BECOME EVIDENT.
- SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OR INSTALLATION.
- COPYRIGHT AND RIGHT OF REPRODUCTION OF THIS DRAWINGS OR ANY PORTION THEREOF IS RESERVED

**CONSTRUCTION NOTES**

- Foundations:**
- A1. STRIP FOUNDATIONS - 700x250mm 15Mpa CONCRETE STRIP FOUNDATION. TOP OF FOUNDATION TO BE MIN. 300mm BELOW N.G.L.
  - A2. FILLING - APPROVED HARDWARE FILLING COMPACTED IN LAYERS OF MAX. 150mm. FILLING TO BE TREATED WITH SABS APPROVED INSECTICIDE AND WEED KILLER TO COMPLY WITH SABS 1164 & 1165.
- Surfacedbeds & floors:**
- B1. SURFACEBED - 85mm THICK 15Mpa CONCRETE SURFACEBED ON USB GREEN 250 MIRRON DAMP PROOF MEMBRANE. SURFACEBED CAST IN SECTIONS OF MAX. 2000mm
  - B2. SCREED & FLOOR FINISH - "Marley Super Metro" 25mm THICK FULLY FLEXIBLE VINYL FLOOR SHEETING ON 14 SMOOTH CEMENT SAND SCREED TO A TOTAL THICKNESS OF 30mm. ALL LAD AND FINISHED STRICTLY TO MANUFACTURERS SPEC.
  - B3. SCREED & FLOOR FINISH - 30mm 14 CEMENT SAND SCREED TO RECEIVE "Marley" 2mm THICK FULLY FLEXIBLE VINYL ASBESTOS FLOOR TILES, LAD STRICTLY TO MANUFACTURERS SPEC.
  - B4. APRON - 1200mm WIDE 15Mpa CONCRETE APRON WITH WOOD FLAT FINISH. APRON TO BE CAST IN LENGTHS OF MAX. 3m & TO HAVE A 1:100 FALL AWAY FROM BUILDING.
- Skirtings:**
- C1. SKIRTING - 70mm HIGH "MARLEY" RIDGED PVC SKIRTING SCREED AND PLUGE TO WALL AT 450mm C/C.
- Walls & Structure:**
- D1. EXTERNAL WALLS - APPROVED FACEBRICK WALLS IN STRETCHERBOND TO RECEIVE 10mm WIRE & 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS.
  - D2. BROCKFORCE: BRICK BROCKFORCE TO 230 AND 115 WALLS FOUNDATION WALLS - EVERY 2ND COURSE, SUPERSTRUCTURE - EVERY 4TH COURSE. OVER OPENINGS FORMED IN BROCKWORK, EVERY COURSE FOR 4 COURSES EXTENDING 500mm BEYOND OPENING IN BOTH DIRECTIONS.
  - D3. 228x50mm SAP BEAM TO BE BUILT IN & TIED DOWN TO FACEBRICK COLUMNS WITH 25mm GALVANISED WIRE TIES. BEAM TO BE CROSOITE TREATED PRIOR TO BEING BUILT IN.
  - D4. LINTOL - APPROVED FACEBRICK ON EDGE LINTOL OVER ALL WINDOW & DOOR OPENINGS. BROCKWORK TO RECEIVE 10x6mm SQUARE RECESSED JOINTS.
  - D5. D.P.C. - PROVIDE 375 MIRRON DPC IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW CILLS.
  - D6. INTERNAL WALLS - APPROVED STOCKBRICK WALLS IN STRETCHERBOND TO RECEIVE 1 x COAT SMOOTH 1:5 CEMENT SAND PLASTER TO RECEIVE 1 UNIVERSAL UNDERCOAT AND TWO COATS PLASSON POLVIN SUPER ACRYLIC PAW. COLOUR AS PER ARCHITECT.
  - D7. WALL TILES - PROVIDE STANDARD 150x150mm WHITE GLAZED WALL TILES FROM FLOOR TO TOP OF WINDOW HEIGHT (2250mm). TILES TO BE LAD WITH MANUFACTURERS APPROVED TILING ADHESIVE, AND WHITE TILING GROUT.
- Window Sills:**
- E1. INTERNAL WINDOW CILL - 15mm THICK FIBRE CEMENT WINDOW SILL RECESSED IN 1:4 CEMENT SAND MORTAR. SAND & APPLY ALKALI RESISTANT SEALER AND TWO COATS MAT ENAMEL PAINT.
  - E2. EXTERNAL WINDOW CILL - APPROVED FACEBRICK ON EDGE, TO MATCH WALLS. JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:**
- F1. CORNICE - 75mm GYPSUM COVERED CORNICE NAILED TO WALL AND CEILING AT 450mm CENTERS MAX. AND TO RECEIVE PAINT FINISH TO MATCH CEILING
  - F2. CEILING - 6mm CLADIT FIBRE CEMENT CEILING NAILED TO 38x38mm SAP BATTENS AT MAX. 400mm C/C WITH GALVANISED CLOUT NAILS. PROVIDE GALVANISED H-PROFILE JOINTING STRIPS TO BE PRE PAINTED. PREPARE AND APPLY 1 UNIVERSAL UNDERCOAT & TWO COATS PLASSON POLVIN SUPER ACRYLIC PAW PAINT.
- Roof & Facia:**
- G1. ROOF SHEETING - 0.6mm "DUFLOK" ROOF SHEETING IN CHROMOXEK FINISH ON 76x50mm SAP PURLINS AT MAX. 1200mm C/C ON PATENT & APPROVED PRE-FABRICATED ROOF TRUSS SYSTEM.
  - G2. RIDGE CAPING - STANDARD FACTORY MANUFACTURED RIDGES AND FLASHINGS IN FINISH TO MATCH ROOF COVERING.
  - G3. FACIA & GUTTERS - 250x10mm THICK FC77 PRESSED FIBRE CEMENT FACIA, SCREW FIXED TO TRUSS ENDS & COUNTER BATTEN WITH COUNTERSINK BRASS SCREWS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PLASSON POLVIN SUPER ACRYLIC PAW PAINT. 100 x 100 x 0.6mm GUTTERS WITH 100mm DA RAINWATER DOWNPIPES WITH CHROMOXEK FINISH.
  - G4. TRUSS SYSTEM: TIMBER PATENT & APPROVED PRE-FABRICATED SYSTEM AT 1200mm C/C MAX. PURLINS 50 x 76mm SA PINE AT 1400mm C/C MAX. WALL PLATE 114 x 38mm SA PINE TO BE CROSOITE TREATED BEFORE FRING. CERTIFICATE & GUARANTEE FOR DESIGN & ERECTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TIMBER SECTIONS AS WELL AS SECTIONS IN CONTACT WITH WET TRUSSES TO BE CROSOITE TREATED BEFORE FRING INTO POSITION. TRUSS TO BE SECURED TO WALLS AT WALLPLATE WITH 2.5mm GALV. STEEL WIRE TIES, BUILT INTO WALLS MIN 6 BRCK COURSES.



DETAIL NO: SCALE: DETAIL DESCRIPTION:  
DETAIL 1 1/10 EAVES



**FOUNDATION PLAN:**  
**Scale 1:100.**

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

**SIGNATURE TABLE**

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

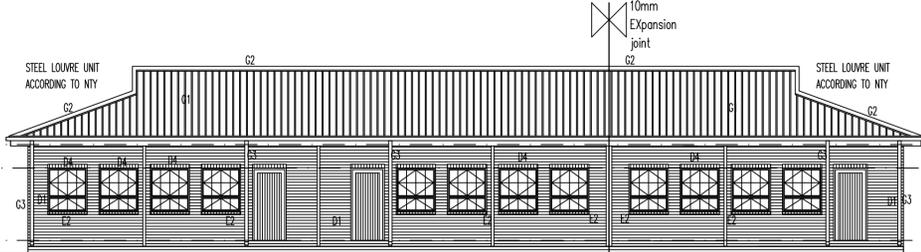
**REVISIONS**  
SIZE ON ORIGINAL DRAWING 100 mm

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 REPUBLIC OF SOUTH AFRICA  
**DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE**

INSTITUTION  
**LADUMA MAHUME PRIMARY SCHOOL**  
 SERVICE  
**RESTORATIVES, REPAIRS & ADDITIONS**  
 CONTRACT DESCRIPTION  
**DOCUMENTATION & PROCUREMENT**  
 DISCIPLINE PROJECT STAGE  
**ARCHITECTURAL 4**  
 WORK DESCRIPTION - SUB DIVISION  
**3 CLASSROOM BLOCK**  
 DRAWING DESCRIPTION  
**ELEVATIONS**

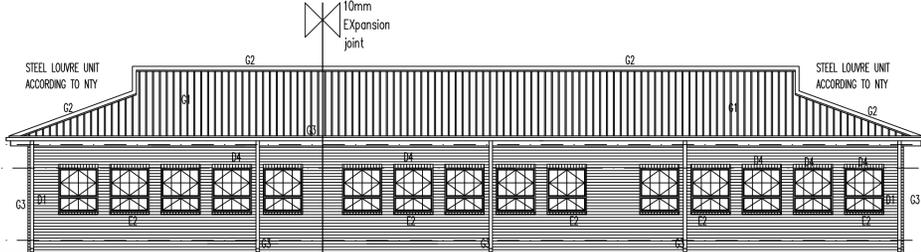
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CONSULTANT :	
CONTRACTOR :	

CADD SYSTEM	AUTO CAD	FILE NAME
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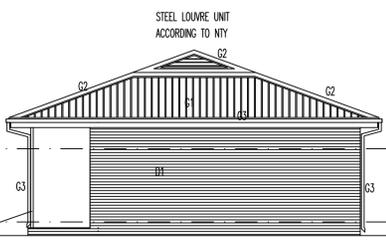


**FRONT ELEVATION:**  
Scale 1:100.

76 x 76 x 3,0mm M/S SQUARE TUBING COLUMN SECURED ON TOP FOUNDATION WITH 5mm THICK FIXING-PLATE BOLT WITH 10mm DIA RANLBOLTS (x4)

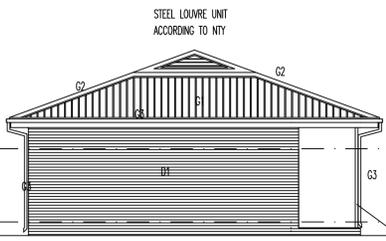


**BACK ELEVATION:**  
Scale 1:100.



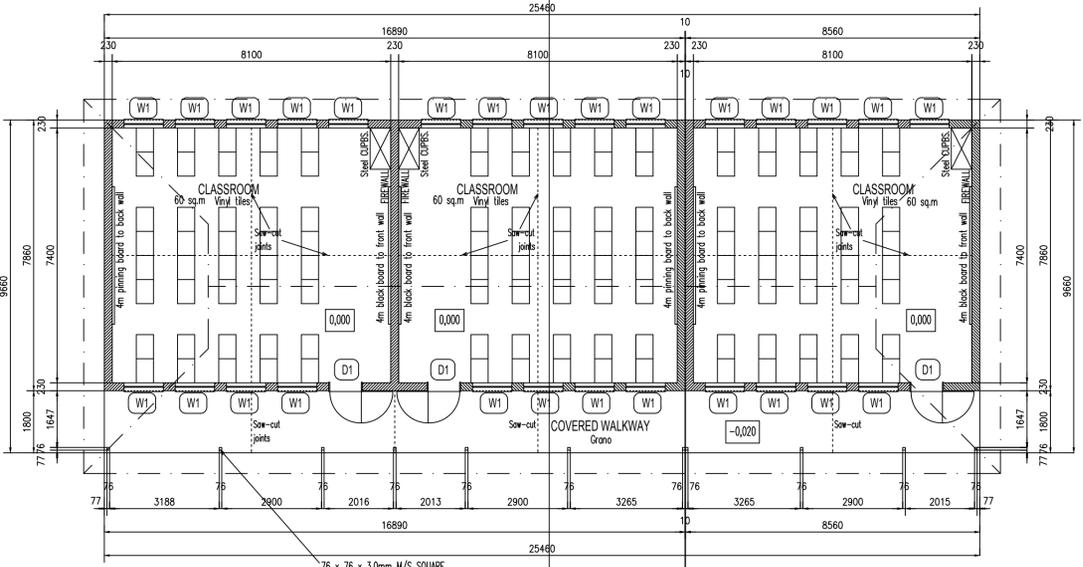
**SIDE ELEVATION:**  
Scale 1:100.

76 x 76 x 3,0mm M/S SQUARE TUBING COLUMN SECURED ON TOP FOUNDATION WITH 5mm THICK FIXING-PLATE BOLT WITH 10mm DIA RANLBOLTS (x4)



**SIDE ELEVATION:**  
Scale 1:100.

76 x 76 x 3,0mm M/S SQUARE TUBING COLUMN SECURED ON TOP FOUNDATION WITH 5mm THICK FIXING-PLATE BOLT WITH 10mm DIA RANLBOLTS (x4)



**GROUND FLOOR PLAN:**  
3 CLASSROOM BLOCK.

76 x 76 x 3,0mm M/S SQUARE TUBING COLUMN SECURED ON TOP FOUNDATION WITH 5mm THICK FIXING-PLATE BOLT WITH 10mm DIA RANLBOLTS (x4)

**WINDOW SCHEDULE:**

- W1 - CAT. No. : STANDARD MILDSTEEL SCHOOLTYPE CENTRE PMOT MILDSTEEL WINDOW, CODE - 5/2 (NTY 11434846 & x 1143 x 486)
- GLAZING : 3mm CLEAR FLOAT GLASS FIXED WITH GLAZING PUTTY PUTTY TO RECEIVE PAINT FINISH TO MATCH WINDOW FRAME
- FINISH : CLEAN WITH STEEL BRUSH & APPLY 1 COAT CHARCOAL, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL PAINT, COLOUR AS PER ARCHITECT.
- No of WINDOWS : 27 (TWENTY SEVEN) PARALLEL BARS OUT OF 12 x 12mm M/S SQUARE SOLID BARS TO LINE UP WITH VERTICAL & HORIZONTAL SECTIONS OF WINDOWS - FINISH DITTO FRAME

**DOOR SCHEDULE:**

- D1 FRAME : NTY 914 CLASSROOM COMBO COMBINATION DOOR FRAME WITH SECURITY GATE (BOTH OPENING OUT), SUITABLE FOR 230mm WALLS. FINISH WITH 1 COAT CHARCOAL, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL, COLOUR AS PER ARCHITECT.
- DOOR : 914x2032x44mm SOLID R & F PANEL MERRITT DOOR WITH MASONITE BACKING - TO RECEIVE 3/4 COATS VARNISH.
- IRONMONGERY : HINGES - 3 x PARLAMENT HINGES. LOCKSET - "SOLID BLESBOK" 460/313 2-LEVER LOCKSET.
- No of DOORS : 3 (THREE)

NOTE: DOOR D1: NTY 914 CLASSROOM COMBO COMBINATION DOOR FRAME WITH SECURITY GATE (BOTH OPENING OUT) CONSISTING OF:

FRAME FOR DOOR 914 x 2032mm HIGH FITTED WITH THREE PARLAMENT HINGES.

SINGLE SECURITY GATE AND FRAME, GATE 914 x 2032mm HIGH OVERALL FORMED OF 25 x 25 x 2mm TUBULAR SECTION FRAME WITRED AND WELDED AT ANGLES AND TWO 25 x 25 x 2mm TUBULAR SECTION HORIZONTAL MIDDLE RAILS, GATE FILLED WITH 12 x 12mm SQUARE SECTION VERTICAL RAILS AT 100mm CENTRES AND FITTED WITH LOCKING BOLT SUITABLE FOR PADLOCK, FRAME FORMED OF 25 x 38 x 2mm TUBULAR SECTION STILES AND TOP RAIL WITRED AND WELDED AT ANGLES AND FITTED WITH THREE HINGES WELDED TO GATE AND FRAME, FRAME FACTORY WELDED AT MAXIMUM 250mm CENTRES TO DOOR FRAME.

**CONSTRUCTION NOTES**

- Foundations:**
- A1. STRIP FOUNDATIONS - 700x250mm 15Mpa CONCRETE STRIP FOUNDATION. TOP OF FOUNDATION TO BE MIN 340mm BELOW N.G.L.
  - A2. FILLING - APPROVED HARDCORE FILLING COMPACTED IN LAYERS OF MAX. 150mm. FILLING TO BE TREATED WITH SABS APPROVED INSECTICIDE AND WEED KILLER TO COMPLY WITH SABS 1164 & 1165.
- Surfacebeds & floors:**
- B1. SURFACEBEDS - 85mm THICK 15Mpa CONCRETE SURFACEBED ON USB GREEN 250 MICRON DAMP PROOF MEMBRANE. SURFACEBED CAST IN SECTIONS OF MAX. 20sqm
  - B2. SCREED & FLOOR FINISH - "Merley Super Metro" 25mm THICK FULLY FLEXIBLE VINYL FLOOR FINISH ON 14 SMOOTH CEMENT SAND SCREED TO A TOTAL THICKNESS OF 300mm. ALL LAD AND FINISHED STRICTLY TO MANUFACTURERS SPEC.
  - B3. SCREED & FLOOR FINISH - 30mm 1:4 CEMENT SAND SCREED TO RECEIVE "Merley" 2mm THICK FULLY FLEXIBLE VINYL ASBESTOS FLOOR TILES, LAD STRICTLY TO MANUFACTURERS SPEC.
  - B4. APRON - 1200mm WIDE 15Mpa CONCRETE APRON WITH WOOD FLOAT FINISH. APRON TO BE CAST IN LENGTHS OF MAX. 3m & TO HAVE A 1:100 FALL AWAY FROM BUILDING.
- Skirtings:**
- C1. SKIRTING - 70mm HIGH "MARLEY" RIDGED PVC SKIRTING SCREWED AND PLUGE TO WALL AT 450mm C/C.
- Walls & Structure:**
- D1. EXTERNAL WALLS - APPROVED FACEBRICK WALLS IN STRETCHERBOND TO RECEIVE 10mm WIDE x 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS.
  - D2. BRICKWORK: BRICKWORK TO 230 AND 115 WALLS FOUNDATION WALLS - EVERY 2ND COURSE SUPERSTRUCTURE - EVERY 4TH COURSE OVER OPENINGS FORMED IN BRICKWORK. EVERY COURSE FOR 4 COURSES EXTENDING 500mm BEYOND OPENING IN BOTH DIRECTIONS.
  - D3. 228x76mm S&P BEAM TO BE BUILT IN & TIED DOWN TO FACEBRICK COLUMNS WITH 2,5mm GALVANISED WIRE TIES. BEAM TO BE CROSSITE TREATED PRIOR TO BEING BUILT IN.
  - D4. LINTOL - APPROVED FACEBRICK ON EDGE LINTOL OVER ALL WINDOW & DOOR OPENINGS. BRICKWORK TO RECEIVE 10x6mm SQUARE RECESSED JOINTS.
  - D5. D.P.C - PROVIDE 375 MILLIMETER DPC IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW CILLS.
  - D6. INTERNAL WALLS - APPROVED STOCKBRICK WALLS IN STRETCHERBOND TO RECEIVE 1 x COAT SMOKE & SOUND GASTER TO RECEIVE THERMATE UNIVERSAL UNDERCOAT AND TWO COATS PLUSCON POLYMER SUPER ACRYLIC PAINT. COLOR AS PER ARCHITECT.
  - D7. WALL TILES - PROVIDE STANDARD 150x150mm WHITE GLAZED WALL TILES FROM FLOOR TO TOP OF WINDOW HEIGHT (2250mm). TILES TO BE LAD WITH MANUFACTURERS APPROVED TILING ADHESIVE, AND WHITE TILING GROUT.
- Window Sills:**
- E1. INTERNAL WINDOW CILL - 15mm THICK FIBRE CEMENT WINDOW SILL BEDEDDED IN 1:4 CEMENT SAND MORTAR. SAND & APPLY ALKALI RESISTANT SEALER AND TWO COATS MAT ENAMEL PAINT.
  - E2. EXTERNAL WINDOW CILL - APPROVED FACEBRICK ON EDGE, TO MATCH WALLS. JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:**
- F1. CORNICE - 75mm GYPSUM COED CORNICE NAILED TO WALL AND CEILING AT 450mm CENTERS MAX. AND TO RECEIVE PAINT FINISH TO MATCH CEILING
  - F2. CEILING - 6mm CLAIT FIBRE CEMENT CEILING NAILED TO 38x38mm S&P BATTENS AT MAX. 400mm C/C WITH GALVANISED CLOUT NAILS. PROVIDE GALVANISED H-PROFILE JOINTING STRIPS TO BE PRE PAINTED. PREPARE AND APPLY 1 UNIVERSAL UNDERCOAT & TWO COATS PLUSCON POLYMER SUPER ACRYLIC PAINT.
- Roof & Facia:**
- G1. ROOF SHEETING - 0,6mm "XLUPLAK" ROOF SHEETING IN CHROMADEK FINISH ON 76x50mm S&P PURLINS AT MAX. 1200mm C/C ON PATENT & APPROVED PRE-FABRICATED ROOF TRUSS SYSTEM.
  - G2. ROOF CAPPING - STANDARD FACTORY MANUFACTURED RIDGES AND FLASHINGS IN FINISH TO MATCH ROOF COVERING.
  - G3. FACIA & GUTTERS - 25x10mm THICK FC77 PRESSED FIBRE CEMENT FACIA, SCREW FIXED TO TRUSS ENDS & COUNTER BATTEN WITH COUNTERSUNK BRASS SCREWS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PLUSCON POLYMER SUPER ACRYLIC PAINT. 100 x 100 x 0,6mm GUTTERS WITH 100mm DIA RAINWATER DOWNPIPES WITH CHROMADEK FINISH.
  - G4. TRUSS SYSTEM: TIMBER PATENT & APPROVED PRE-FABRICATED SYSTEM AT 1200mm C/C MAX. PURLINS 50 x 70mm SA FINE AT 1400mm C/C MAX. WALL PLATE 114 x 38mm SA FINE TO BE CROSSITE TREATED BEFORE FINING. CERTIFICATE & GUARANTEE FOR DESIGN & ERECTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TIMBER SECTIONS AS WELL AS SECTIONS IN CONTACT WITH MET TRUCKS TO BE CROSSITE TREATED BEFORE FINING INTO POSITION. TRUSS TO BE SECURED TO WALLS AT WALLPLATE WITH 2,5mm GALV. STEEL WIRE TIES, BUILT INTO WALLS MIN 6 BRICK COURSES.

**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) 1" Step over 700 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) 50 mm mineral wool insulation to be installed where there are ceilings
- 7) Blower grade insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 8) West Facing Facades to have standardised aluminium louvres from below eaves to drop of 1200 mm
- 9) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

- ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE PRIOR TO COMMENCING SETTING OUT, WORKSHOP DRAWINGS OR CONSTRUCTION.
- FIGURED DIMENSIONS ONLY TO BE USED.
- DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE REPORTED TO ARCHITECTS IMMEDIATELY THEY BECOME EVIDENT.
- SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OR INSTALLATION.
- COPYRIGHT AND RIGHT OF REPRODUCTION OF THIS DRAWINGS OR ANY PORTION THEREOF IS RESERVED

**SIGNATURE TABLE**

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

**REVISIONS**  
SIZE ON ORIGINAL DRAWING 100 mm

REV No:      DATE:      DESCRIPTION:

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

INSTITUTION: **NALEDI YA MESO SCHOOL**

SERVICE: **RESTORATIVES, REPAIRS & ADDITIONS**

CONTRACT DESCRIPTION: **DOCUMENTATION & PROCUREMENT**

DISCIPLINE: **ARCHITECTURAL**      PROJECT STAGE: **4**

WORK DESCRIPTION: **3 CLASSROOM BLOCK**

DRAWING DESCRIPTION: **ELEVATIONS**

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

RESPONSIBLE PROFESSIONAL:

DATE	NAME	SIGNATURE	PR NUMBER

DRAWING CO-ORDINATED:

CONSULTANT:

CONTRACTOR:

CADD SYSTEM: <b>A1</b>	AUTO CAD	FILE NAME
SIZE: <b>AA214 -15 - CR-PL01</b>	DRAWING NUMBER	REV 2



**FURNITURE NOTES**

**COMPUTER LABORATORY**

- OFFICE: 3 000mm long x 600mm wide x 32mm thick Formica worktop on powder coated steel brackets, including 1 x F4503 drawer unit.
- SERVER ROOM: 3 000mm long x 600mm wide x 32mm thick Formica worktop on powder coated steel brackets, including 1 x F4503 drawer unit.
- STORE: 4 Rows 300mm wide x 16mm thick melamine shelving on wall bands and brackets at 600mm centres.
- LABORATORY: 40 x Computer workstations, comprising of 32mm thick Formica worktops on 32mm x 32mm square tube powder coated steel framework. Framework fitted with adjusters and bolted to floor.

**WINDOW SCHEDULE:**

- WT - CAT. No. : STANDARD MILD STEEL SCHOOL TYPE PIVOT MILD STEEL WINDOW CODE - 5/2 (NY 114546 & 1143 & 48)
- GLAZING : 3mm CLEAR FLAT GLASS FIXED WITH GLAZING PUTTY PUTTY TO RECEIVE PAINT FINISH TO MATCH WINDOW FRAME CODE & 5mm THICK BEGGED GLASS FOR WINDOW CODE 2.
- FINISH : CLEAN WITH STEEL BRUSH & APPLY 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL PAINT. COLOUR AS PER ARCHITECT.
- HINGES - 4x100mm M/S BUTTERFLY HINGES PER DOOR LEAF LOCKSET - "SOLID BLEND" 460/313 FOUR LEVER LOCKSET.

**DOOR SCHEDULE:**

- D1 FRAME : STANDARD MILD STEEL 813x2032x1,2mm SINGLE REBATE PRESSED METAL DOOR FRAME FOR 230mm WALLS. FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL. COLOUR AS PER ARCHITECT.
- DOOR : 813x2032mm MERANTI FLB DOUBLE DOOR WITH FLUSH PANEL INSIDE FINISH WITH 2 COATS MAT VARNISH.
- IRONMONGERY : HINGES - 4x100mm M/S BUTTERFLY HINGES PER DOOR LEAF LOCKSET - "SOLID BLEND" 460/313 FOUR LEVER LOCKSET. CABIN HOOK - 2x 150mm CHROME PLATED CABIN HOOK, MOUNTED ON REBATE CONVERSION SET. FINISH CHROME. 1x 100mm BARREL BOLT. FINISH: CHROME. 75x75x16mm MERANTI MOUNTING BLOCK. EDGES OF MOUNTING BLOCK TO RECEIVE 5mm CHAMFERS.
- No of DOORS : 1 (ONE)
- D2 FRAME : STANDARD MILD STEEL 813x2032x1,2mm SINGLE REBATE PRESSED METAL DOOR FRAME FOR 115mm WALLS. FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL. COLOUR AS PER ARCHITECT.
- DOOR : 813x2032mm SEM-SOLID CORE DOOR. FINISH WITH 1 COAT UNIVERSAL UNDERCOAT AND 2 COATS ACRYLIC PVA. COLOUR AS PER ARCHITECT.
- IRONMONGERY : HINGES - 2x100mm M/S BUTTERFLY HINGES PER DOOR LEAF LOCKSET - "SOLID BLEND" 460/313 FOUR LEVER LOCKSET.
- No of DOORS : 3 (THREE)
- D3 FRAME : STANDARD MILD STEEL 813x2032x1,2mm SINGLE REBATE PRESSED METAL DOOR FRAME FOR 230mm WALLS. FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL. COLOUR AS PER ARCHITECT.
- DOOR : 813x2032mm MERANTI FLB DOOR WITH FLUSH PANEL INSIDE FINISH WITH 2 COATS MAT VARNISH.
- IRONMONGERY : HINGES - 2x100mm M/S BUTTERFLY HINGES PER DOOR LEAF LOCKSET - "SOLID BLEND" 460/313 FOUR LEVER LOCKSET.
- No of DOORS : 1 (ONE)
- G1 FRAME : TO FIT IN REBATE OF DOUBLE-DOOR FRAME.
- DOOR : GATE OUT OF 25 x 25 x 2,0mm M/S SQUARE-TUBING SECTIONS WITH VERTICAL SECTIONS OUT OF 12 x 12mm M/S SQUARE SOLID BARS AT 100mm C/C SPACINGS.
- IRONMONGERY : HINGES - 2x100mm M/S BUTTERFLY HINGES PER DOOR LEAF LOCKSET - "SOLID BLEND" 460/313 FOUR LEVER LOCKSET.
- No of DOORS : 1 (ONE)

**CONSTRUCTION NOTES**

- Foundations:**
- A1. STRIP FOUNDATIONS - 700x250mm 15Mpa CONCRETE STRIP FOUNDATION. TOP OF FOUNDATION TO BE MIN 340mm BELOW N.G.L.
  - A2. FILLING - APPROVED HARDCORE FILLING COMPACTED IN LAYERS OF MAX. 150mm. FILLING TO BE TREATED WITH SABS APPROVED INSECTICIDE AND NEED KILLER TO COMPLY WITH SABS 1164 & 1165.
- Surfacedbeds & floors:**
- B1. SURFACEDBED - 85mm THICK 15Mpa CONCRETE SURFACEDBED ON USB GREEN 250 MICRON SAND PROOF MEMBRANE. SURFACEDBED CAST IN SECTIONS OF MAX. 200mm.
  - B2. SCORED & FLOOR FINISH - "Marley Super Mat" 2.5mm THICK FULLY FLEXIBLE VINYL FLOOR SHEETING ON 1:4 SMOOTH CEMENT SAND SCREED TO A TOTAL THICKNESS OF 30mm. ALL LAD AND FINISHED STRICTLY TO MANUFACTURERS SPEC.
  - B3. SCORED & FLOOR FINISH - 30mm 1:4 CEMENT SAND SCREED TO RECEIVE "Marley" 2mm THICK FULLY FLEXIBLE VINYL ASBESTOS FLOOR TILES. LAD STRICTLY TO MANUFACTURERS SPEC.
  - B4. APRON - 1200mm WIDE 15Mpa CONCRETE APRON WITH WOOD FLOAT FINISH. APRON TO BE CAST IN LENGTHS OF MAX. 3m & TO HAVE A 1:100 FALL AWAY FROM BUILDING.
- Skirtings:**
- C1. SKIRTING - 70mm HIGH "MARLEY" RIDGED PVC SKIRTING SCREED AND PLUNCE TO WALL AT 450mm C/C.
- Walls & Structure:**
- D1. EXTERNAL WALLS - APPROVED FACEBRICK WALLS IN STRETCHER BOND TO RECEIVE 10mm WIDE x 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS.
  - D2. BRICKWORK: BRK BRICKWORK TO 230 AND 115 WALLS FOUNDATION WALLS - EVERY 2ND COURSE, SUPERSTRUCTURE - EVERY 4TH COURSE. OVER OPENINGS FORMED IN BRICKWORK, EVERY COURSE FOR 4 COURSES EXTENDING 500mm BEYOND OPENING IN BOTH DIRECTIONS.
  - D3. 228x76mm SAP BEAM TO BE BUILT IN & TIED DOWN TO FACEBRICK COLUMNS WITH 2.5mm GALVANIZED WIRE TIES. BEAM TO BE CRESSOTE TREATED PRIOR TO BEING BUILT IN.
  - D4. LINTOL - APPROVED FACEBRICK ON EDGE LINTOL OVER ALL WINDOW & DOOR OPENINGS. BRICKWORK TO RECEIVE 10mm SQUARE RECESSED JOINTS.
  - D5. D.P.C. - PROVIDE 375 MICRON DPC IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW CILLS.
  - D6. INTERNAL WALLS - APPROVED STOCKBRICK WALLS IN STRETCHER BOND TO RECEIVE 1 x COAT SMOOTH 1:5 CEMENT SAND PLASTER TO RECEIVE 1x100mm UNIVERSAL UNDERCOAT AND TWO COATS PLASCON POLYMER SUPER ACRYLIC PVA. COLOUR AS PER ARCHITECT.
  - D7. WALL TILES - PROVIDE STANDARD 150x150mm WHITE GLAZED WALL TILES FROM FLOOR TO TOP OF WINDOW HEIGHT(2285mm). TILES TO BE LAD WITH MANUFACTURERS APPROVED TILING ADHESIVE, AND WHITE TILING GROUT.
- Window Sills:**
- E1. INTERNAL WINDOW CILL - 15mm THICK FIBRE CEMENT WINDOW SILL BEDED IN 1:4 CEMENT SAND MORTAR. SAND & APPLY ALKALI RESISTANT SEALER AND TWO COATS MAT ENAMEL PAINT.
  - E2. EXTERNAL WINDOW CILL - APPROVED FACEBRICK ON EDGE, TO MATCH WALLS. JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:**
- F1. CORNICE - 75mm DEPTH COVERED CORNICE WALLED TO WALL AND CEILING AT 65mm CENTRES MAX. AND TO RECEIVE PAINT FINISH TO MATCH CEILING.
  - F2. CEILING - 6mm CLADIT FIBRE CEMENT CEILING WALLED TO 38x38mm SAP BATTENS AT MAX. 400mm C/C WITH GALVANIZED CLOUT NAILS. PROVIDE GALVANIZED H-PROFILE JOINTING STRIPS TO BE PRE PAINTED. PREPARE AND APPLY 1xUNIVERSAL UNDERCOAT & TWO COATS PLASCON POLYMER SUPER ACRYLIC PVA PAINT.
- Roof & Fascia:**
- G1. ROOF SHEETING - 0.6mm "DUPLOK" ROOF SHEETING IN CHROMOXEK FINISH ON 76x50mm SAP PURLINS AT MAX. 1200mm C/C ON PATENT & APPROVED PRE-FABRICATED ROOF TRUSS SYSTEM.
  - G2. RIDGE CAPING - STANDARD FACTORY MANUFACTURED RIDGES AND FLASHING IN FINISH TO MATCH ROOF COVERING.
  - G3. FASCIA & GUTTERS - 25x100mm THICK FC77 PRESSED FIBRE CEMENT FASCIA, SCREW FIXED TO TRUSS ENDS & COUNTER BATTEN WITH COUNTERSUNK BRASS SCREWS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PLASCON POLYMER SUPER ACRYLIC PVA PAINT. 100 x 100 x 0.6mm GUTTERS WITH 100mm DA RAINWATER DOWNPIPES WITH CHROMOXEK FINISH.
  - G4. TRUSS SYSTEM: TMEER PATENT & APPROVED PRE-FABRICATED SYSTEM AT 1200mm C/C MAX. PURLINS 50 x 76mm SA PINE AT 1400mm C/C MAX. WALL PLATE 114 x 30mm SA PINE TO BE CRESSOTE TREATED BEFORE FIXING. CERTIFICATE & GUARANTEE FOR DESIGN & ERECTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TIMBER SECTIONS AS WELL AS SECTIONS IN CONTACT WITH MET TRADES TO BE CRESSOTE TREATED BEFORE FIXING INTO POSITION. TRUSS TO BE SECURED TO WALLS AT WALLPLATE WITH 2.5mm GALV. STEEL WIRE NETS, BUILT INTO WALLS MIN 6 BRICK COURSES.

**Ceiling & Cornice:(CONTINUED)**

- F3. PLASTER CEILING: 0.5mm THICK GALVANIZED SHEETING SANDWICHED BETWEEN TWO 9.5mm THICK TAPER-EDGE FLUSH JOINTED RHINO BOARD PLASTERED CEILING FIXED TO U/S OF STEEL BRACING AT MAX. 300mm CENTRES IN ONE DIRECTION WITH PRONED SIZE UP LONG 30mm STREAKER SCREWS SPACED AT MAX. 150mm CENTRES. GALVANIZED SHEETING TO OVERLAP AT LEAST 20mm IN BOTH DIRECTIONS. ALL JOINTS TO RECEIVE 50mm FINISHER AND PREPARE CEILING BOARDS TO RECEIVE 3mm OF RHINOULTE STEEL TROWEL. PLASTER ACCORDING TO MANUFACTURERS SPECIFICATIONS. ALL RHINOULTE SURFACES TO BE SEALED WITH AN OIL BASED SEALER AND ALLOWED TO DRY FOR 24 HOURS. APPLY TWO COATS ACRYLIC PVA. COLOUR TO ARCHITECT.

**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 700 mm build in Substrate
- 4) Gully positions to be determined as per site prescribed overall drainage design
- 5) If 2 coats sealant on all exposed trusses (sand off all SABS & other markings)
- 6) 50 mm mineral wool insulation to be installed where there are ceilings
- 7) Blower plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 7) West Facing Facades to have standardised aluminium louvers 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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**SIGNATURE TABLE**

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

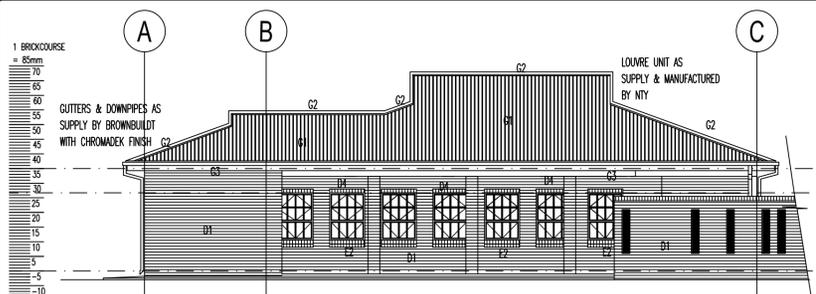
**REVISIONS**

SIZE ON ORIGINAL DRAWING 100 mm

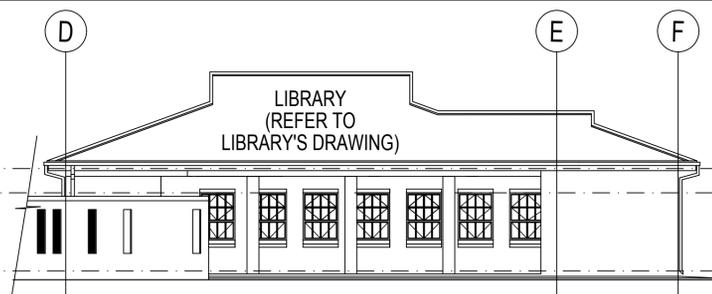
  
**DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE**

INSTITUTION	
NALEDI YA MESO SCHOOL	
SERVICE	
RESTORATIVES, REPAIRS & ADDITIONS	
CONTRACT SECTION	
DOCUMENTATION & PROCUREMENT	
DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	4
WORK DESCRIPTION - SUB DIVISION	
COMPUTER CENTRE	
DRAWING DESCRIPTION	
COMPUTER CENTRE	
FILE No.	ITEM No.
DESIGN	DRAWN
SCALE 1:100	CHECKED
RESPONSIBLE PROFESSIONAL	
DATE	SIGNATURE
	PR NUMBER
DRAWING CO-ORDINATED	
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CONTRACTOR :	
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AUTO CAD	
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	REV 2

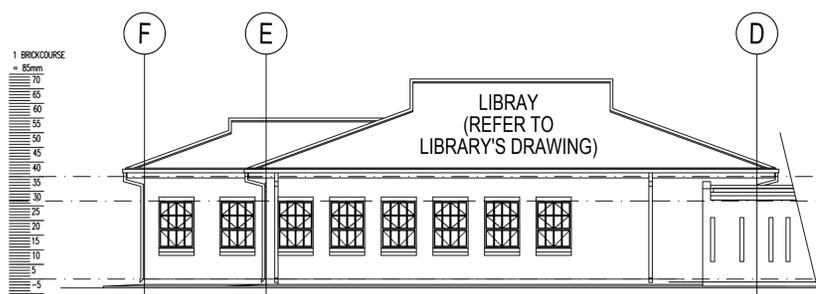
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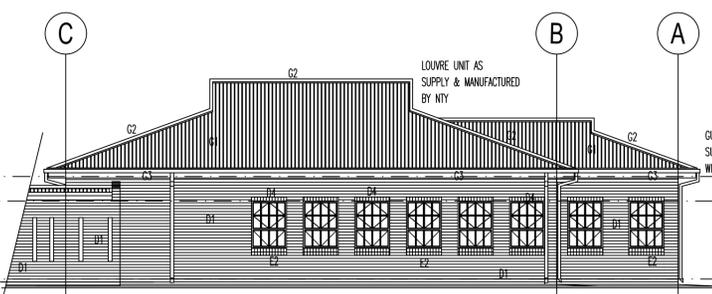
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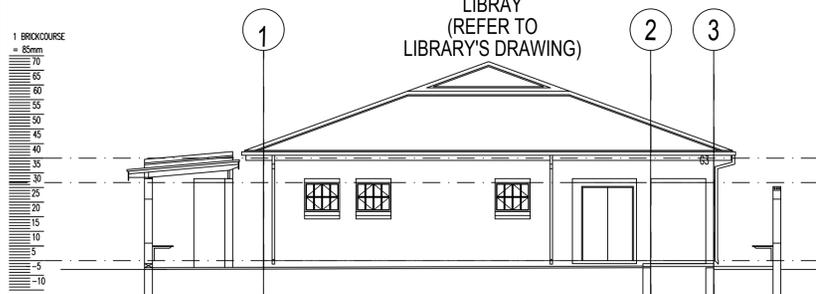
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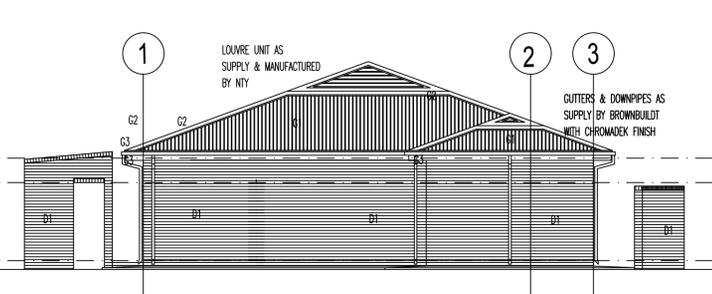
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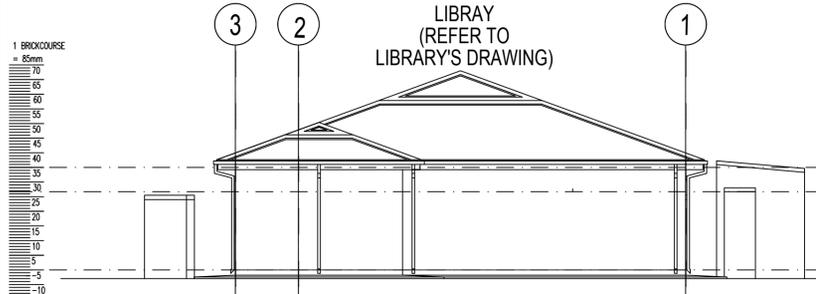
**SIDE ELEVATION:**  
Scale 1:100.



**SIDE ELEVATION:**  
Scale 1:100.

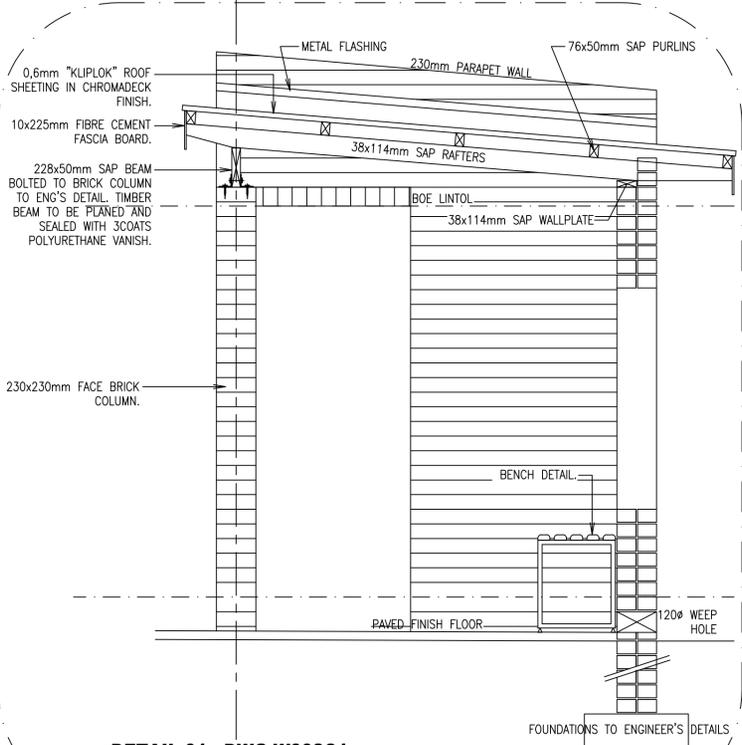


**SIDE ELEVATION:**  
Scale 1:100.



**Ceiling & Cornice: (CONTINUED)**

F3: PLASTER CEILING:  
0,5mm THICK GALVANIZED SHEETING SANDWICHED BETWEEN TWO 9,5mm THICK TAPER-EDGE FLUSH JOINTED RHINO BOARD PLASTERED CEILING FIXED TO U/S OF STEEL BRANDING AT MAX. 300mm CENTRES IN ONE DIRECTION WITH PRINTED SILE UP LONG 30mm STRENGTH SCREWS SPACED AT MAX. 150mm CENTRES. GALVANIZED SHEETING TO OVERLAP AT LEAST 20mm IN BOTH DIRECTIONS. ALL JOINTS TO RECEIVE 50mm FIBRAPE AND PREPARE CEILING BOARDS TO RECEIVE 3mm OF RHINOULITE STEEL TRIM. PLASTER ACCORDING TO MANUFACTURERS SPECIFICATIONS. ALL RHINOULITE SURFACES TO BE SEALED WITH AN OIL BASED SEALER AND ALLOWED TO DRY FOR 24 HOURS. APPLY TWO COATS ACRYLIC PVA COLOUR TO ARCHITECT.



**DETAIL 01 - DWG W002C1**  
Scale 1:20.

**CONSTRUCTION NOTES**

- Foundations:**
- STRIP FOUNDATIONS - 700x250mm 15Mpa CONCRETE STRIP FOUNDATION. TOP OF FOUNDATION TO BE MIN 340mm BELOW N.G.L.
  - FILLING - APPROVED HARDCORE FILLING COMPACTED IN LAYERS OF MAX. 150mm. FILLING TO BE TREATED WITH SABS APPROVED INSECTICIDE AND WEED KILLER TO COMPLY WITH SABS 1164 & 1165.
- Surfacebeds & floors:**
- SURFACEBED - 85mm THICK 15Mpa CONCRETE SURFACEBED ON USB GREEN 250 MICRON DAMP PROOF MEMBRANE, SURFACEBED CAST IN SECTIONS OF MAX. 20mm.
  - SCREED & FLOOR FINISH - 100mm THICK FLEXIBLE 25mm THICK FULLY FLEXIBLE VINYL FLOOR SHEETING ON 1:4 SMOOTH CEMENT SAND SCREED TO A TOTAL THICKNESS OF 30mm. ALL LAD AND FINISHED STRICTLY TO MANUFACTURERS SPEC.
  - SCREED & FLOOR FINISH - 30mm 1:4 CEMENT SAND SCREED TO RECEIVE "marley" 2mm THICK FULLY FLEXIBLE VINYL ASBESTOS FLOOR FILES, LAD STRICTLY TO MANUFACTURERS SPEC.
  - APRON - 1200mm WIDE 15Mpa CONCRETE APRON WITH WOOD FLOAT FINISH. APRON TO BE CAST IN LENGTHS OF MAX. 3m & TO HAVE A 1:100 FALL AWAY FROM BUILDING.
- Skirtings:**
- SKIRTING - 70mm HIGH "MARLEY" RIGID PVC SKIRTING SCREED AND FLANGE TO WALL AT 450mm C/C.
- Walls & Structure:**
- EXTERNAL WALLS - APPROVED FACEBRICK WALLS IN STRETCHER BOND TO RECEIVE 10mm WIDE x 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS.
  - BRICKWORK: BRICKWORK TO 230 AND 115 WALLS FOUNDATION WALLS - EVERY 2ND COURSE, SUPERSTRUCTURE - EVERY 4TH COURSE. OVER OPENINGS FORMED IN BRICKWORK, EVERY COURSE FOR 4 COURSES EXTENDING 500mm BEYOND OPENING IN BOTH DIRECTIONS.
  - 228x76mm SAP BEAM TO BE BUILT IN & TIED DOWN TO FACEBRICK COLUMNS WITH 2,5mm GALVANISED WIRE TIES. BEAM TO BE CREOSOTE TREATED PRIOR TO BEING BUILT IN.
  - LINTOL - APPROVED FACEBRICK ON EDGE LINTOL OVER ALL WINDOW & DOOR OPENINGS. BRICKWORK TO RECEIVE 104mm SQUARE RECESSED JOINTS.
  - D.P.C. - PROVIDE 375 MICRON DPC IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW CILLS.
  - INTERNAL WALLS - APPROVED STOCKBRICK WALLS IN STRETCHER BOND TO RECEIVE 1 x COAT SMOOTH 1:5 CEMENT SAND PLASTER TO RECEIVE 14MM UNIVERSAL UNDERCOAT AND TWO COATS PLYCON POLYVIN SUPER ACRYLIC PAINT. COLOUR AS PER ARCHITECT.
  - WALL TILES - PROVIDE STANDARD 150x150mm WHITE GLAZED WALL TILES FROM FLOOR TO TOP OF WINDOW HEIGHT (2295mm). TILES TO BE LAD WITH MANUFACTURERS APPROVED TILING ADHESIVE, AND WHITE TILING GROUT.
- Window Sills:**
- INTERNAL WINDOW CILL - 15mm THICK FIBRE CEMENT WINDOW SILL BEDDED IN 1:4 CEMENT SAND MORTAR. SAND & APPLY ALKALI RESISTANT SEALER AND TWO COATS MAT EMERALD PAINT.
  - EXTERNAL WINDOW CILL - APPROVED FACEBRICK ON EDGE, TO MATCH WALLS. JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:**
- CORNICE - 75mm OPSUM CONED CORNICE NAILED TO WALL AND CEILING AT 600mm CENTRES MAX. AND TO RECEIVE PAINT FINISH TO MATCH CEILING.
  - CEILING - 6mm CLADIT FIBRE CEMENT CEILING NAILED TO 38x38mm SAP BATTENS AT MAX. 400mm C/C WITH GALVANISED CLOUT WALLS. PROVIDE GALVANISED H-PROFILE JOINTING STRIPS TO BE PRE PAINTED. PREPARE & APPLY 1x UNIVERSAL UNDERCOAT & TWO COATS PLYCON POLYVIN SUPER ACRYLIC PVA PAINT.
- Roof & Fascia:**
- ROOF SHEETING - 0,6mm "KIJLOK" ROOF SHEETING IN CHROMADEK FINISH ON 76x50mm SAP PURLINS AT MAX. 1200mm C/C ON PATENT & APPROVED PRE-FABRICATED ROOF TRUSS SYSTEM.
  - ROOF CAPPING - STANDARD FACTORY MANUFACTURED RIDGES AND FLASHING IN FINISH TO MATCH ROOF COVERING.
  - FASCIA & GUTTERS - 25x100mm THICK FCT77 PRESSED FIBRE CEMENT FASCIA, SCREW FIXED TO TRUSS ENDS & COUNTER BATTEN WITH COUNTERSUNK BRASS SCREWS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PLYCON POLYVIN SUPER ACRYLIC PVA PAINT.
  - TRUSS SYSTEM: TIMBER PATENT & APPROVED PRE-FABRICATED SYSTEM AT 1200mm C/C MAX. PURLINS 50 x 76mm SA PINE AT 1400mm C/C MAX. WALL PLATE 114 x 30mm SA PINE TO BE CREOSOTE TREATED BEFORE FINISH. CERTIFICATE & GUARANTEE FOR DESIGN & SECTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TIMBER SECTIONS AS WELL AS SECTIONS IN CONTACT WITH WET TRADES TO BE CREOSOTE TREATED BEFORE FINISH INTO POSITION. TRUSS TO BE SECURED TO WALLS AT WALLPLATE WITH 2,5mm GALV. STEEL WIRE TIES, BUILT INTO WALLS WITH 6 BRICK COURSES.

**NOTES :**

- Workmanship to comply with Standard Specification of materials and methods to be used - SABS 0400.
- Light Switch in Disabled toilet to be at 1200 mm above FFL.
- 1/2" Step over 700 mm built in Balustrade.
- Gully positions to be determined as per site prescribed overall drainage design.
- 2 coats sealant on all exposed trusses (sand off all SABS & other markings).
- 50 mm mineral wool insulation to be installed where there are ceilings.
- Bubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings.
- West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm.
- Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers.

- ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE PRIOR TO COMMENCING SETTING OUT, WORKSHOP DRAWINGS OR CONSTRUCTION.
- FIGURED DIMENSIONS ONLY TO BE USED.
- DISCREPANCIES, ERRORS AND OMISSIONS ARE TO BE REPORTED TO ARCHITECTS IMMEDIATELY THEY BECOME EVIDENT.
- SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OR INSTALLATION.
- COPYRIGHT AND RIGHT OF REPRODUCTION OF THIS DRAWINGS OR ANY PORTION THEREOF IS RESERVED.

**SIGNATURE TABLE**

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

**REVISIONS**  
SIZE ON ORIGINAL DRAWING 100 mm

**LIMPOPO**  
PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

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

INSTITUTION  
**NALEDI YA MESO SCHOOL**

SERVICE  
**RESTORATIVES, REPAIRS & ADDITIONS**

CONTRACT SECTION  
**DOCUMENTATION & PROCUREMENT**

DISCIPLINE PROJECT STAGE  
**ARCHITECTURAL 4**

WORK DESCRIPTION - SUB DIVISION  
**COMPUTER CENTRE**

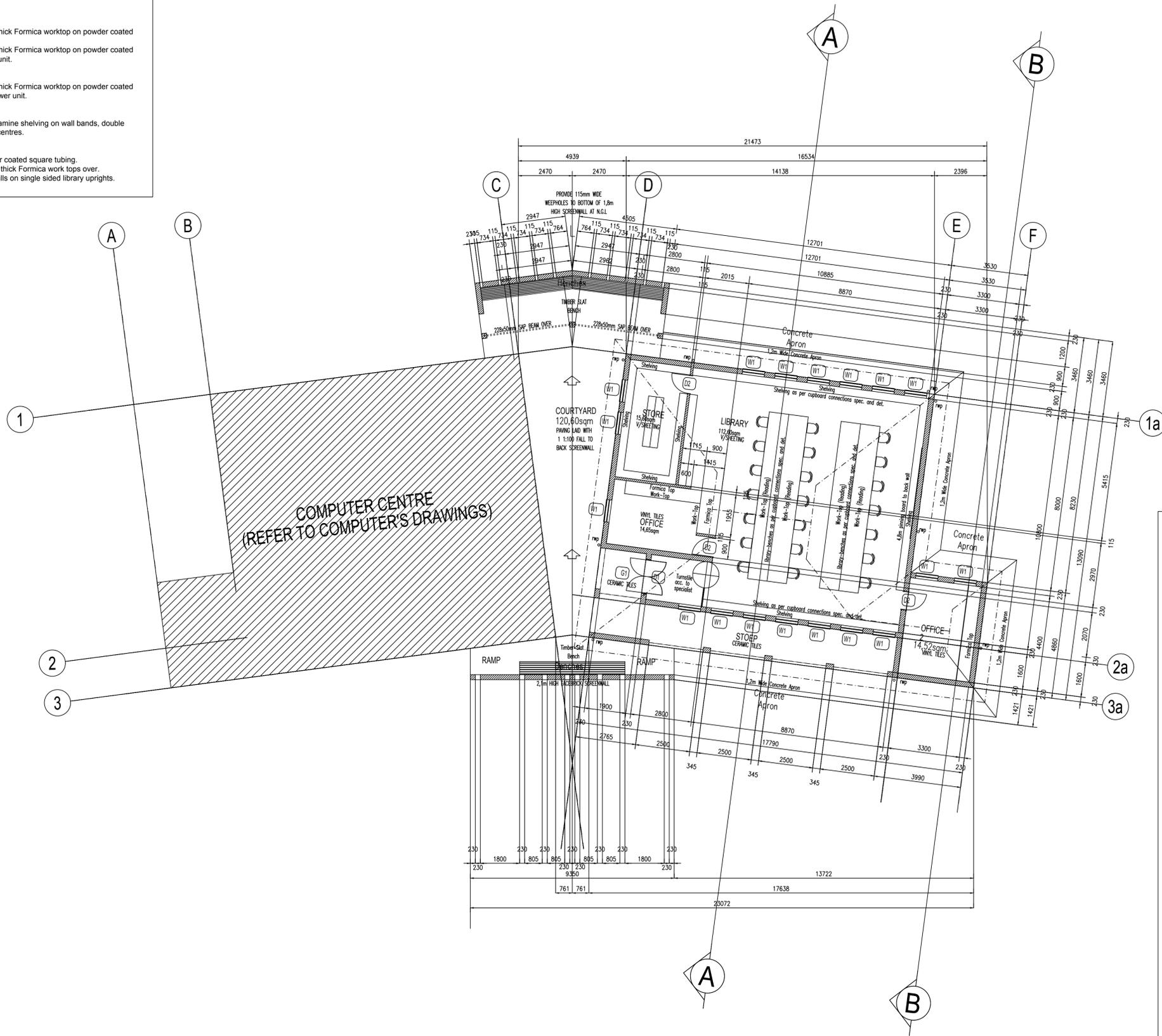
DRAWING DESCRIPTION  
**ELEVATIONS**

FILE No.	ITEM No.
DESIGN	DRAWN
SCALE 1:100	CHECKED
DATE	RESPONSIBLE PROFESSIONAL SIGNATURE PR NUMBER
	DRAWING CO-ORDINATED
	CONSULTANT :
	CONTRACTOR :

CADD SYSTEM	AUTO CAD	FILE NAME
SIZE	DRAWING NUMBER	REV 2
<b>A1</b>	<b>AA214 -15 - CR-PL04</b>	

**FURNITURE NOTES:**

- OFFICE 1**  
3 500mm long x 600mm wide x 32mm thick Formica worktop on powder coated brackets.  
2 070mm long x 900mm wide x 32mm thick Formica worktop on powder coated steel legs, including 1 x F450/3 drawer unit.
- OFFICE 2**  
3 300mm long x 600mm wide x 32mm thick Formica worktop on powder coated steel brackets, including 1 x F450/3 drawer unit.
- STORE**  
4 Rows 300mm wide x 16mm thick melamine shelving on wall bands, double sided uprights and brackets at 600mm centres.
- LABORATORY**  
Reading tables constructed from powder coated square tubing.  
Steel frames with 800mm wide x 32mm thick Formica work tops over.  
6 Rows steel library shelving against walls on single sided library uprights.  
Cubicles to reading tables.



**WINDOW SCHEDULE:**

W1 - CAT. No. : STANDARD MILD STEEL SCHOOL TYPE CENTRE PIVOT MILD STEEL WINDOW CODE - 5/2 INTY 1143646 & 1143 x 489  
GLAZING : 3mm CLEAR LEAD GLASS FIXED WITH GLAZING PUTTY PUTTY TO RECEIVE PAINT FINISH TO MATCH WINDOW FRAME CODE 5 - 5mm THICK OBTAINED GLASS FOR WINDOW CODE 2.  
FINISH : CLEAN WITH STEEL BRUSH & APPLY 1 COAT DOWPIMPES, UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL PAINT. COLOUR AS PER ARCHITECT.

No of WINDOWS : 18 (EIGHTEEN) PROVIDE BURGLAR BARS OUT OF 12 x 12mm M/S SQUARE SOLID BARS TO LINE UP WITH VERTICAL & HORIZONTAL SECTIONS OF WINDOWS - FINISH OTTO FRAME

**DOOR SCHEDULE:**

D1 FRAME : STANDARD MILD STEEL 1511x2032x12mm SINGLE REBATE PRESSED METAL DOOR FRAME FOR 230mm WALLS  
FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL COLOUR AS PER ARCHITECT  
DOOR : 1511x2032mm MERANTI FIB DOOR WITH FLUSH PANEL INSIDE FINISH WITH 2 COATS MAT VARNISH  
HINGES - 4x100mm M/S BUTTERFLY HINGES PER DOOR LEAF  
LOCKSET - "SOLID BLESBROK" 460/313 FOUR LEVER LOCKSET. CABIN HOOK - 3x 150mm CHROME PLATED CABIN HOOK, MOUNTED ON REBATE CONVERSION SET. FINISH CHROME.  
IRONMONGERY : 1x 100mm BARREL BOLT, FINISH CHROME. 75x75x16mm MERANTI MOUNTING BLOCK. EDGES OF MOUNTING BLOCK TO RECEIVE 5mm CHAMFERS

No of DOORS : 1 (ONE)

D2 FRAME : STANDARD MILD STEEL 813x2032x12mm SINGLE REBATE PRESSED METAL DOOR FRAME FOR 115mm WALLS  
FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL COLOUR AS PER ARCHITECT.  
DOOR : 813x2032mm SEM-SOLID CORE DOOR  
FINISH WITH 1 COAT UNIVERSAL UNDERCOAT AND 2 COATS ACROLIC PVA COLOUR AS PER ARCHITECT  
HINGES - 2x100mm M/S BUTTERFLY HINGES PER DOOR LEAF  
LOCKSET - "SOLID BLESBROK" 460/313 FOUR LEVER LOCKSET.

No of DOORS : 3 (THREE)

D3 FRAME : STANDARD MILD STEEL 813x2032x12mm SINGLE REBATE PRESSED METAL DOOR FRAME FOR 230mm WALLS  
FINISH WITH 1 COAT DURAPHOS, 1 UNIVERSAL UNDERCOAT & TWO COATS GLOSS ENAMEL COLOUR AS PER ARCHITECT.  
DOOR : 813x2032mm MERANTI FIB DOOR WITH FLUSH PANEL INSIDE FINISH WITH 2 COATS MAT VARNISH  
HINGES - 2x100mm M/S BUTTERFLY HINGES PER DOOR LEAF  
LOCKSET - "SOLID BLESBROK" 460/313 FOUR LEVER LOCKSET.

No of DOORS : 1 - (ONE)

G1 FRAME : TO FIT IN REBATE OF DOUBLE-DOOR FRAME.  
DOOR : ONE OUT OF 25 x 25 x 2.5mm M/S SQUARE-TUBING SECTIONS WITH VERTICAL SECTIONS OF 12 x 12mm M/S SQUARE SOLID BARS AT 100mm C/C SPACINGS.  
FINISH: 1/COAT GLOSS ENAMEL & 1/UNIVERSAL UNDERCOAT & 2/COATS FLASCON GLOSS ENAMEL COLOUR TO ARCHITECT.  
IRONMONGERY : HINGES - 2x100mm M/S BUTTERFLY HINGES PER DOOR LEAF  
LOCKSET - "SOLID BLESBROK" 460/313 FOUR LEVER LOCKSET.

No of DOORS : 1 (ONE)

**CONSTRUCTION NOTES**

- Foundations:**  
A1. STRIP FOUNDATIONS - 700x250mm 15Mpa CONCRETE STRIP FOUNDATION. TOP OF FOUNDATION TO BE MIN 340mm BELOW N.G.L.  
A2. FILLING - APPROVED HARD CORE FILLING COMPACTED IN LAYERS OF MAX. 150mm. FILLING TO BE TREATED WITH SABS APPROVED INSECTICIDE AND NEED KILLER TO COMPLY WITH SABS 1164 & 1165.
- Surfacebeds & floors:**  
B1. SURFACEBED - 80mm THICK 15Mpa CONCRETE SURFACEBED ON USB GREEN 250 MEGAPASCAL PROOF MEASURABLE SURFACEBED CAST IN SECTIONS OF MAX. 20sqm  
B2. SCREED & FLOOR FINISH - "Merley Super Mat" 25mm THICK FULLY FLEXIBLE VINYL FLOOR SHEETING ON 14 SMOOTH CEMENT SAND SCREED TO A TOTAL THICKNESS OF 30mm. ALL LAD AND FINISHED STRICTLY TO MANUFACTURERS SPEC.  
B3. SCREED & FLOOR FINISH - 30mm 14 CEMENT SAND SCREED TO RECEIVE "Merley" 25mm THICK FULLY FLEXIBLE VINYL ASBESTOS FLOOR TILES, LAD STRICTLY TO MANUFACTURERS SPEC.  
B4. APRON - 1200mm WIDE 15Mpa CONCRETE APRON WITH WOOD FLOOR FINISH. APRON TO BE CAST IN LENGTHS OF MAX. 3m & TO HAVE A 1:100 FALL AWAY FROM BUILDING.
- Skirtings:**  
C1. SKIRTING - 70mm HIGH "MARLEY" RIDGED PVC SKIRTING SCREWED AND PLUSE TO WALL AT 450mm C/C.
- Walls & Structure:**  
D1. EXTERNAL WALLS - APPROVED FACEBRICK WALLS IN STRETCHER BOND TO RECEIVE 10mm WIDE x 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS.  
D2. BRICKWORK: BRICKWORK TO 230 AND 115 WALLS FOUNDATION WALLS - EVERY 2ND COURSE SUPERSTRUCTURE - EVERY 4TH COURSE. OVER OPENINGS FORMED IN BRICKWORK EVERY COURSE FOR 4 COURSES EXTENDING 500mm BEYOND OPENING IN BOTH DIRECTIONS.  
D3. 228x76mm SAP BEAM TO BE BUILT IN & TIED DOWN TO FACEBRICK COLUMNS WITH 2.5mm GALVANISED WIRE TIES. BEAM TO BE CREOSOTE TREATED PRIOR TO BEING BUILT IN.  
D4. LINTEL - APPROVED FACEBRICK ON EDGE LINTEL OVER ALL WINDOW & DOOR OPENINGS. BRICKWORK TO RECEIVE 100mm SQUARE RECESSED JOINTS.  
D5. D.P.C - PROVIDE 375 MICRON DPC IN WALLS AT FLOOR LEVEL AND UNDER ALL EXTERNAL WINDOW COLLS.  
D6. INTERNAL WALLS - APPROVED STOCKBRICK WALLS IN STRETCHER BOND TO RECEIVE 1 x COAT SMOOTH 1:5 CEMENT SAND PLASTER TO RECEIVE 16MERT UNIVERSAL UNDERCOAT AND TWO COATS FLASCON POLVIN SUPER ACROLIC PVA COLOUR AS PER ARCHITECT.  
D7. WALL TILES - PROVIDE STANDARD 150x150mm WHITE GLAZED WALL TILES FROM FLOOR TO TOP OF WINDOW HIGH(2285mm). TILES TO BE LAD WITH MANUFACTURERS APPROVED TILING ADHESIVE, AND WHITE TILING GROUT.
- Window Sills:**  
E1. INTERNAL WINDOW CILL - 15mm THICK FIBRE CEMENT WINDOW SILL BEDED IN 1:4 CEMENT SAND MORTAR. SAND & APPLY ALKALI RESISTANT SEALER AND TWO COATS MAT ENAMEL PAINT.  
E2. EXTERNAL WINDOW CILL - APPROVED FACEBRICK ON EDGE. TO MATCH WALLS. JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:**  
F1. CORNICE - 75mm OPSUM COVERED CORNICE MAILED TO WALL AND CEILING AT 450mm CENTRES MAX. AND TO RECEIVE PAINT FINISH TO MATCH CEILING  
F2. CEILING - 6mm CLOUT FIBRE CEMENT CEILING MAILED TO 38x38mm SAP BATTENS AT MAX. 400mm C/C WITH GALVANISED CLOUT NAILS. PROVIDE GALVANISED H-PROFILE JOINTING STRIPS TO BE PRE PAINTED. PREPARE AND APPLY 16UNIVERSAL UNDERCOAT & TWO COATS PLASCON POLVIN SUPER ACROLIC PVA PAINT.
- Roof & Fascia:**  
G1. ROOF SHEETING - 0.6mm "KUPLOK" ROOF SHEETING IN CHROMADEX FINISH ON 76x50mm SAP PURLINS AT MAX. 1200mm C/C ON PATENT & APPROVED PRE-FABRICATED ROOF TRUSS SYSTEM.  
G2. RIDGE CAPPING - STANDARD FACTORY MANUFACTURED RIDGES AND FLASHING IN FINISH TO MATCH ROOF COVERING.  
G3. FASCIA & GUTTERS - 25x100mm THICK FC77 PRESSED FIBRE CEMENT FASCIA, SCREW FIXED TO TRUSS ENDS & COUNTER BATTEN WITH COUNTERSINK BRASS SCREWS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PLASCON POLVIN SUPER ACROLIC PVA PAINT  
100 x 100 x 0.6mm GUTTERS WITH 100mm DIA RAINWATER DOWNPIPES WITH CHROMADEX FINISH.  
G4. TRUSS SYSTEM: TIMBER PATENT & APPROVED PRE-FABRICATED SYSTEM AT 1200mm C/C MAX. PURLINS 50 x 76mm SA PINE AT 1400mm C/C MAX. WALL PLATE 114 x 38mm SA PINE TO BE CREOSOTE TREATED BEFORE FIXING. CERTIFICATE & GUARANTEE FOR DESIGN & ERECTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TIMBER SECTIONS AS WELL AS SECTIONS IN CONTACT WITH MET TRADES TO BE CREOSOTE TREATED BEFORE FIXING INTO POSITION. TRUSS TO BE SECURED TO WALLS AT WALLPLATE WITH 2.5mm GALV. STEEL WIRE TIES, BUILT INTO WALLS MIN 6 BRICK COURSES.

**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 700 mm build in Substrate
  - 4) Gully positions to be determined as per site prescribed overall drainage design
  - 5) 2 coats sealant on all exposed trusses (sand off all SABS & other masonry)
  - 6) 50 mm mineral wool insulation to be installed where there are ceilings
  - 7) Blubble plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
  - 7) West Facing Facades to have standardised aluminium louvers 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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  - \* SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OR INSTALLATION .
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**SIGNATURE TABLE**

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

REV No	DATE	DESCRIPTION

**REVISIONS**  
SIZE ON ORIGINAL DRAWING 100 mm

**LIMPOPO**  
PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

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

INSTITUTION  
**NALEDI YA MESO SCHOOL**

SERVICE  
**RESTORATIVES, REPAIRS & ADDITIONS**

CONTRACT SECTION  
**DOCUMENTATION & PROCUREMENT**

DISCIPLINE	PROJECT STAGE
<b>ARCHITECTURAL</b>	<b>4</b>

WORK DESCRIPTION - SUB DIVISION  
**GROUND FLOOR PLAN**

DRAWING DESCRIPTION  
**LIBRARY CENTRE**

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

DATE	RESPONSIBLE PROFESSIONAL	SIGNATURE	PR NUMBER

DRAWING CO-ORDINATED

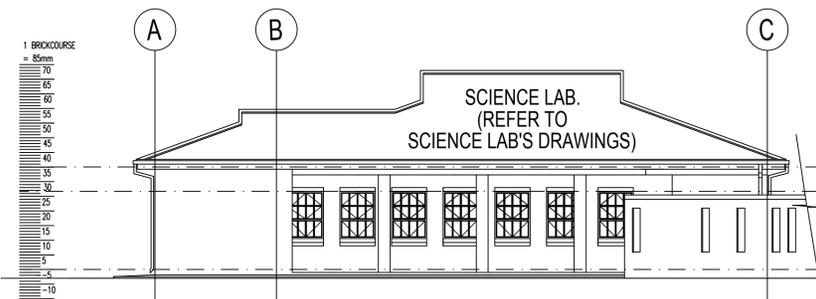
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CONTRACTOR :

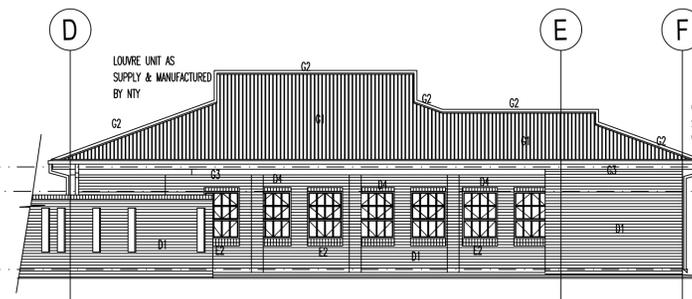
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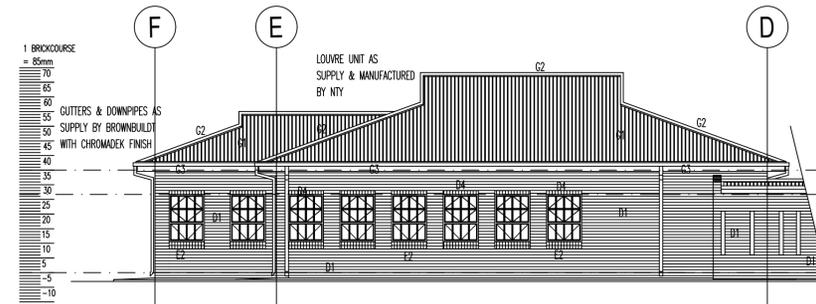
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LIBRARY:  
Scale 1:100.**



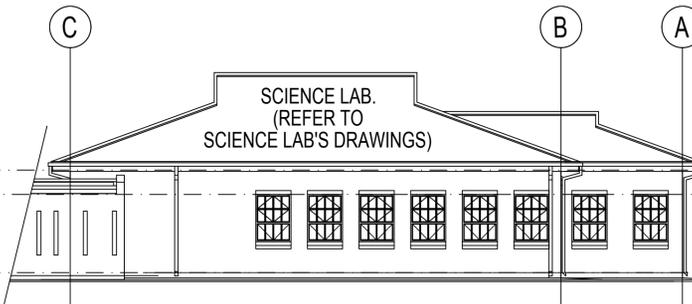
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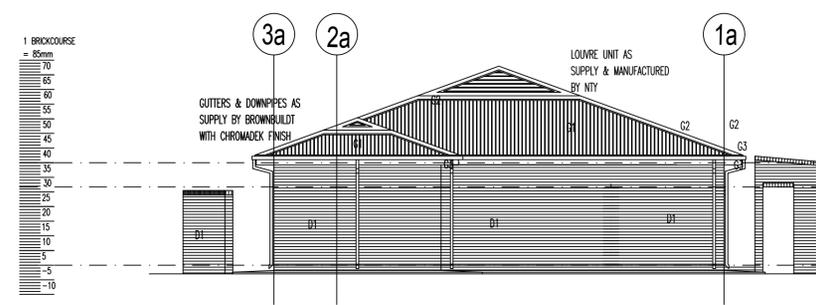
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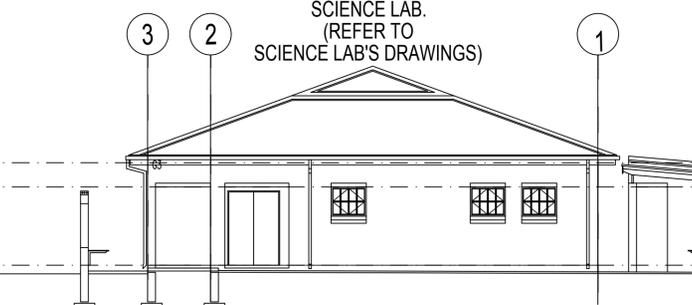
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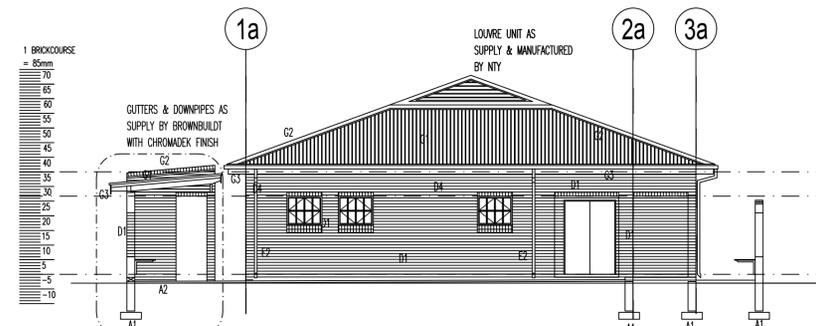
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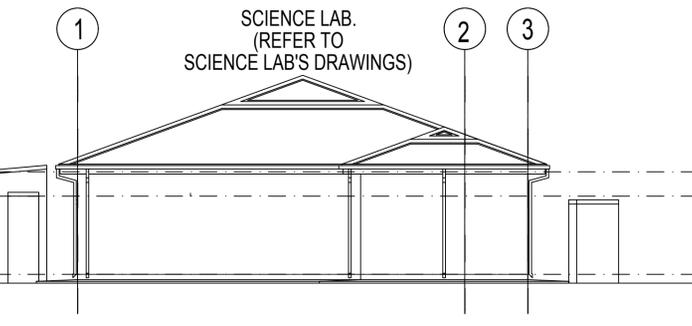
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Scale 1:100.



**SIDE ELEVATION:**  
Scale 1:100.



**SIDE ELEVATION:**  
Scale 1:100.



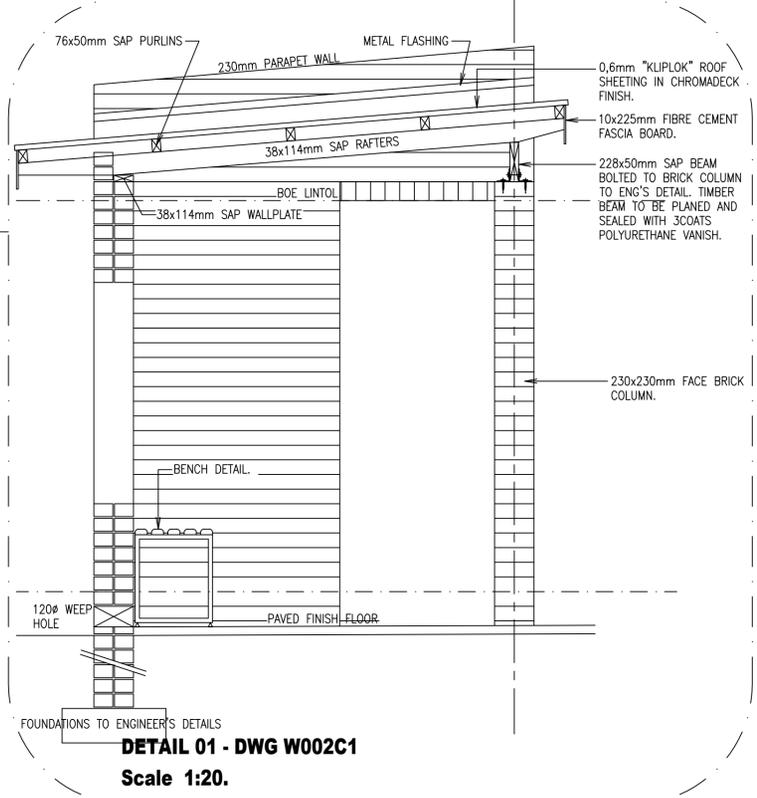
**SIDE ELEVATION:**  
Scale 1:100.

**CONSTRUCTION NOTES**

- 1 BRICKCOURSE = 85mm
- Foundations:**
- A1. STRIP FOUNDATIONS - 700x250mm 15Mpa CONCRETE STRIP FOUNDATION. TOP OF FOUNDATION TO BE MIN 340mm BELOW N.G.L.
  - A2. FILLING - APPROVED HARDCORE FILLING COMPACTED IN LAYERS OF MAX. 150mm. FILLING TO BE TREATED WITH SABS APPROVED INSECTICIDE AND WEED KILLER TO COMPLY WITH SABS 1164 & 1165.
- Surfacedecks & floors:**
- B1. SURFACED - 85mm THICK 15Mpa CONCRETE SURFACED ON USB GREEN 250 MICRON DAMP PROOF MEMBRANE. SURFACED CAST IN SECTIONS OF MAX. 2000mm.
  - B2. SCORED & FLOOR FINISH - "Merley Super Mat" 2.5mm THICK FLEXIBLE VINYL FLOOR SHEETING ON 14 SMOOTH CEMENT SAND SCORED TO A TOTAL THICKNESS OF 30mm. ALL LAD AND FINISHED STRICTLY TO MANUFACTURERS SPEC.
  - B3. SCORED & FLOOR FINISH - 30mm 1:4 CEMENT SAND SCORED TO RECEIVE "Merley" 2mm THICK FLEXIBLE VINYL ABRETTOS FLOOR TILES. LAD STRICTLY TO MANUFACTURERS SPEC.
  - B4. APRON - 1200mm WIDE 15Mpa CONCRETE APRON WITH WOOD FLOAT FINISH. APRON TO BE CAST IN LENGTHS OF MAX. 3m & TO HAVE A 1:100 FALL AWAY FROM BUILDING.
- Skirtings:**
- C1. SKIRTING - 70mm HIGH "MARLEY" RIDGED PVC SKIRTING SCORED AND PLUNGE TO WALL AT 450mm C/C.
- Walls & Structure:**
- D1. EXTERNAL WALLS - APPROVED FACEBRICK WALLS IN STRETCHER BOND TO RECEIVE 10mm WIDE x 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS.
  - D2. BRICKWORK: BRICKWORK TO 230 AND 115 WALLS FOUNDATION WALLS - EVERY 2ND COURSE, SUPERSTRUCTURE - EVERY 4TH COURSE. OVER OPENINGS FORMED IN BRICKWORK, EVERY COURSE FOR 4 COURSES EXTENDING 300mm BEYOND OPENING IN BOTH DIRECTIONS.
  - D3. 228x76mm SAP BEAM TO BE BUILT IN & TIED DOWN TO FACEBRICK COLUMNS WITH 2.5mm GALVANISED WIRE TIES. BEAM TO BE CREOSOTE TREATED PRIOR TO BEING BUILT IN.
  - D4. LINTOL - APPROVED FACEBRICK ON EDGE LINTOL OVER ALL WINDOW & DOOR OPENINGS. BRICKWORK TO RECEIVE 106mm SQUARE RECESSED JOINTS.
  - D5. D.P.C. - PROVIDE 375 MICRON EPIC IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW CILLS.
  - D6. INTERNAL WALLS - APPROVED STOCKBRICK WALLS IN STRETCHER BOND TO RECEIVE 1 x COAT SMOOTH 1:3 CEMENT SAND PLASTER TO RECEIVE 1xWERT UNIVERSAL UNDERCOAT AND TWO COATS PLASCON POLYN SUPER ACRYLIC PVA. COLOUR AS PER ARCHITECT.
  - D7. WALL TILES - PROVIDE STANDARD 150x150mm WHITE GLAZED WALL TILES FROM FLOOR TO TOP OF WINDOW HEIGHT(2295mm). TILES TO BE LAD WITH MANUFACTURERS APPROVED TILING ADHESIVE, AND WHITE TILING GROUT.
- Window Sills:**
- E1. INTERNAL WINDOW CILL - 15mm THICK FIBRE CEMENT WINDOW SILL BEDDED IN 1:4 CEMENT SAND MORTAR. SAND & APPLY ALKALI RESISTANT SEALER AND TWO COATS WAT DAMPROOF PAINT.
  - E2. EXTERNAL WINDOW CILL - APPROVED FACEBRICK ON EDGE, TO MATCH WALLS. JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:**
- F1. CORNICE - 75mm OPSISUM COVERED CORNICE NAILED TO WALL AND CEILING AT 450mm CENTRES MAX AND TO RECEIVE PAINT FINISH TO MATCH CEILING.
  - F2. CEILING - 6mm CLADIT FIBRE CEMENT CEILING NAILED TO 38x38mm SAP BATTENS AT MAX. 400mm C/C WITH GALVANISED CLOUT WALLS. PROVIDE GALVANISED H-PROFILE JOINTING STRIPS TO BE PRE PAINTED. PREPARE AND APPLY 1xUNIVERSAL UNDERCOAT & TWO COATS PLASCON POLYN SUPER ACRYLIC PVA PAINT.
- Roof & Fascia:**
- G1. ROOF SHEETING - 0.6mm "KLIPOK" ROOF SHEETING IN CHROMADEK FINISH ON 76x50mm SAP PURLINS AT MAX. 1200mm C/C ON PATENT & APPROVED PRE-FABRICATED ROOF TRUSS SYSTEM.
  - G2. RIDGE CAPPING - STANDARD FACTORY MANUFACTURED RIDGES AND FLASHING IN FRESH TO MATCH ROOF CORNER.
  - G3. FASCIA & GUTTERS - 250x10mm THICK FE27 PRESSED FIBRE CEMENT FASCIA. SCREW FIXED TO TRUSS ENDS & COUNTER BATTEN WITH COUNTERSUNK BRASS SCREWS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PLASCON POLYN SUPER ACRYLIC PVA PAINT. 100 x 100 x 65mm GUTTERS WITH 100mm DIA BANHAMMER DOWNPIPES WITH CHROMADEK FINISH.
  - G4. TRUSS SYSTEM: TIMBER PATENT & APPROVED PRE-FABRICATED SYSTEM AT 1200mm C/C MAX. PURLINS 50 x 76mm SA PINE AT 1400mm C/C MAX. WALL PLATE 114 x 38mm SA PINE TO BE CREOSOTE TREATED BEFORE FIXING. CERTIFICATE & GUARANTEE FOR DESIGN & EXECUTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TIMBER SECTIONS AS WELL AS SECTIONS IN CONTACT WITH WET TRADES TO BE CREOSOTE TREATED BEFORE FIXING INTO POSITION. TRUSS TO BE SECURED TO WALLS AT WALLPLATE WITH 2.5mm GALV. STEEL WIRE TIES, BUILT INTO WALLS MIN 6 BRICK COURSES.

**Ceiling & Cornice:(CONTINUED)**

F3. PLASTER CEILING:  
0.5mm THICK GALVANIZED SHEETING SANDWICHED BETWEEN TWO 9.5mm THICK TAPER-EDGE FLUSH JOINTED RHINO BOARD PLASTERED CEILING FIXED TO U/S OF STEEL BRACING AT MAX. 300mm CENTRES IN ONE DIRECTION WITH PRINTED SIE UP USING 10mm STREAMER SCREWS SPACED AT MAX. 150mm CENTRES. GALVANIZED SHEETING TO OVERLAP AT LEAST 20mm IN BOTH DIRECTIONS. ALL JOINTS TO RECEIVE 50mm FIBRE AND PREPARE CEILING BOARDS TO RECEIVE 3mm OF RINOLITE STEEL TROWEL PLASTER ACCORDING TO MANUFACTURERS SPECIFICATIONS. ALL RINOLITE SURFACES TO BE SEALED WITH AN OIL BASED SEALER AND ALLOWED TO DRY FOR 24 HOURS. APPLY TWO COATS ACRYLIC PVA. COLOUR TO ARCHITECT.



**NOTES :**

- 1) Workmanship to comply with Standard Specification of materials and methods to be used - SABS (S40)
  - 2) Light Switch in Disabled toilet to be at 1200 mm above FFL
  - 3) If Step over 700 mm build in Balustrade
  - 4) Gully positions to be determined as per site prescribed overall drainage design
  - 5) 2 coats sealant on all exposed trusses (sand off all SABS & other markings)
  - 6) 50 mm mineral wool insulation to be installed where there are ceilings
  - 7) Blinds plastic insulation with full backing to be installed with wire supports in all areas that do not have ceilings
  - 8) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
  - 9) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers
- \* ALL DIMENSIONS AND LEVELS ARE TO BE VERIFIED ON SITE PRIOR TO COMMENCING SETTING OUT , WORKSHOP DRAWINGS OR CONSTRUCTION .
  - \* FIGURED DIMENSIONS ONLY TO BE USED .
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  - \* SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO MANUFACTURE OR INSTALLATION .
  - \* COPYRIGHT AND RIGHT OF REPRODUCTION OF THIS DRAWINGS OR ANY PORTION THEREOF IS RESERVED

**SIGNATURE TABLE**

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

REV No	DATE	DESCRIPTION

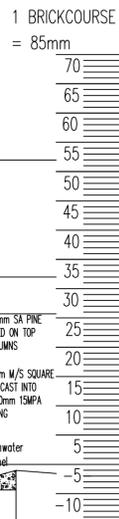
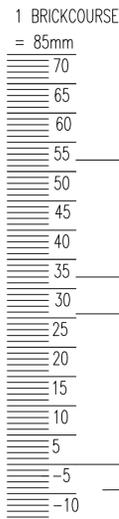
**REVISIONS**  
SIZE ON ORIGINAL DRAWING 100 mm

**LIMPOPO**  
 PROVINCIAL GOVERNMENT  
 REPUBLIC OF SOUTH AFRICA  
 DEPARTMENT OF  
**PUBLIC WORKS, ROADS & INFRASTRUCTURE**

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RESTORATIVES, REPAIRS & ADDITIONS	
CONTRACT SECTION	
DOCUMENTATION & PROCUREMENT	
DISCIPLINE	PROJECT STAGE
ARCHITECTURAL	4
WORK DESCRIPTION - SUB DIVISION	
ELEVATIONS	
DRAWING DESCRIPTION	
LIBRARY CENTRE	

FILE No.	ITEM No.
DESIGN	DRAWN
SCALE	CHECKED
DATE	RESPONSIBLE PROFESSIONAL SIGNATURE
	PR NUMBER
DRAWING CO-ORDINATED	
CONSULTANT :	
CONTRACTOR :	

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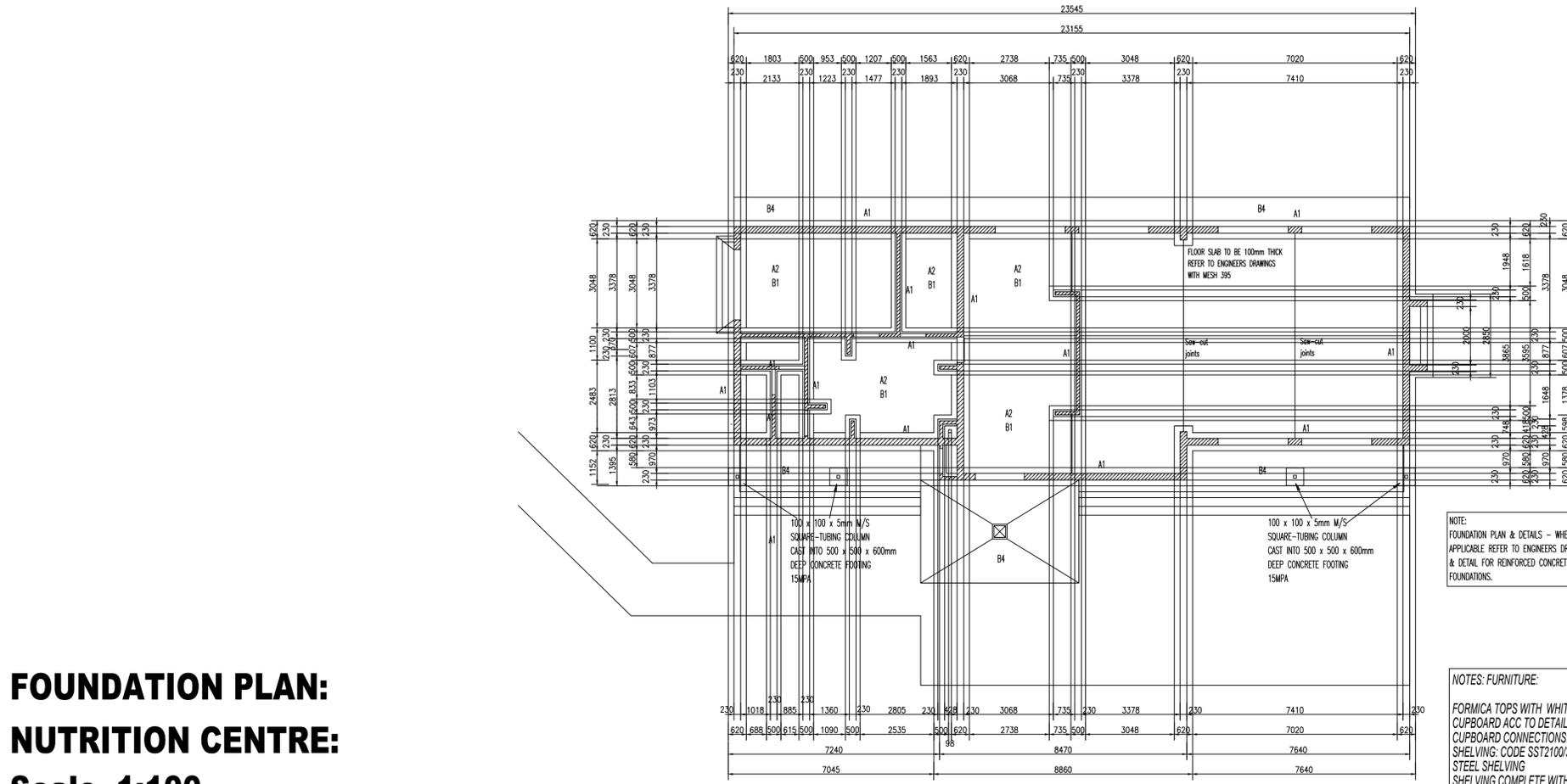


**SECTION A-A:**  
**Scale 1:50.**

**SECTION B-B:**  
**Scale 1:50.**

**CONSTRUCTION NOTES**

- Foundations:**
- A1. STRIP FOUNDATION - 150mm CONCRETE STRIP FOUNDATION TOP OF FOUNDATION TO BE MIN 300mm BELOW WALL.
  - A2. FILLING - APPROVED UNODDED FILLING COMPACTED IN LAYERS OF WALL 150mm FILLING TO BE TREATED WITH SANS APPROVED WEBSITE AND WEDS NAILS TO COMPLY WITH SANS 1184 & 1185.
- Surfacedbeds & floors:**
- B1. SURFACED - 85mm THICK 15Mpa CONCRETE SURFACED ON 100mm GREEN SAND UNIFORM SAND PROOF MEMBRANE SURFACED DOTS IN SECTIONS OF WALL 20mm
  - B2. SCREED & FLOOR FINISH - 20mm GREEN SAND SCREED TO FINISH UNIFORM SAND PROOF MEMBRANE SURFACED DOTS IN SECTIONS OF WALL 20mm
  - B3. SCREED & FLOOR FINISH - 20mm GREEN SAND SCREED TO FINISH UNIFORM SAND PROOF MEMBRANE SURFACED DOTS IN SECTIONS OF WALL 20mm
  - B4. FLOOR FINISH - 20mm GREEN SAND SCREED TO FINISH UNIFORM SAND PROOF MEMBRANE SURFACED DOTS IN SECTIONS OF WALL 20mm
- Skirtings:**
- C1. SKIRTING - 20mm HIGH "MIDWAY" SKIRTING SKIRTING AND PULLEY TO WALL AT 45mm C/C.
- Walls & Structure:**
- D1. EXTERNAL WALLS - APPROVED FACEBRICK WALLS IN SKEWERDORP TO RECEIVE 150mm WIDE 6mm DEEP SWANE RECESSED JOINTS IN BOTH DIRECTIONS.
  - D2. INTERIOR WALLS - APPROVED FACEBRICK TO 230 AND 115 WALLS FOUNDATION WALLS - EVERY 2ND COURSE SUPERSTRUCTURE - EVERY 4TH COURSE OVER OPENINGS FORMED IN BRICKWORK. FLOOR COURSE FOR 4 COURSES ENDING 50mm BELOW OPENING IN BOTH DIRECTIONS.
  - D3. 200mm SPB BEAM TO BE BUILT & TIED DOWN TO FACEBRICK COLUMNS WITH 15mm GALVANIZED WIRE TIES BEAM TO BE CREOSOTE TREATED PRIOR TO BEING BUILT IN.
  - D4. LINTOL - APPROVED FACEBRICK ON EDGE UNLESS ALL WINDOW & DOOR OPENINGS. SKIRTING TO RECEIVE 150mm SWANE RECESSED JOINTS.
  - D5. J.P.C. - PROVIDE 125mm WIDE J.P.C. IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW SILL.
  - D6. INTERNAL WALLS - APPROVED FACEBRICK WALLS IN SKEWERDORP TO RECEIVE 150mm WIDE 6mm DEEP SWANE RECESSED JOINTS.
  - D7. WINDOW SILL - APPROVED FACEBRICK ON EDGE UNLESS ALL WINDOW & DOOR OPENINGS. SKIRTING TO RECEIVE 150mm SWANE RECESSED JOINTS.
  - D8. J.P.C. - PROVIDE 125mm WIDE J.P.C. IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW SILL.
  - D9. WALL TIES - PROVIDE STANDARD 150x150mm WIRE GALVANIZED WIRE TIES FROM FLOOR TO TOP OF WINDOW HEAD(225mm) TIES TO BE LAD WITH UNODDED APPROVED TILING ADHESIVE AND WIRE TILING GROUT.
- Window Sills:**
- E1. INTERNAL WINDOW SILL - 15mm THICK FIBRE CEMENT WINDOW SILL BEDED IN 1:4 CEMENT SAND MORTAR SAND & APPLY ADHESIVE SEALER AND TWO COATS WATER PROOFING.
  - E2. EXTERNAL WINDOW SILL - APPROVED FACEBRICK ON EDGE TO MATCH WALL JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:**
- F1. CORNICE - 20mm OPEN CORNICE WELDED TO WALL AND CEILING AT 45mm CORNICE W/ AND TO RECEIVE PAINT PRIOR TO WOOD CEILING.
  - F2. CEILING - 6mm GAUGE FIBRE CEMENT CEILING WELDED TO 200mm SPB BRICKS AT WALL 45mm C/C WITH GALVANIZED CLAY WALLS. PROVIDE GALVANIZED - PROFILE JOINTING STRIPS TO BE PAINT FINISH. PREPARE AND APPLY UNIVERSAL UNDERCOAT & TWO COATS PULVER PLASTER SUPER ACRISE PLASTER.
  - F3. ROOF SHEETING - 60mm "PULTRON" ROOF SHEETING IN CHROMADEK FINISH ON 150mm SPB PURLINS AT WALL 120mm C/C OR PATENT & APPROVED PRE-FABRICATED ROOF TRUSS SYSTEM.
  - F4. ROOF CEILING - STANDARD FACTORY UNODDED BRICKS AND TILES IN REAR TO MATCH ROOF CEILING.
  - F5. FACIA & GUTTER - 200mm THICK 1277 PRESSED FIBRE CEMENT FACIA SCREW FIRED TO TRUSS ENDS & CORNER BRICKS WITH CONCRETE BRICKS SCREWS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PULVER PLASTER SUPER ACRISE PLASTER.
  - F6. TRUSS SYSTEM: TOWER PATENT & APPROVED PRE-FABRICATED SYSTEM AT 120mm C/C WALL PURLINS 50 x 70mm SA PINE AT 1400mm C/C WALL WALL PURLIN 114 x 30mm SA PINE TO BE CREOSOTE TREATED BEFORE FORMING. CONSTRUCT & GUTTERING FOR DESIGN & SECTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TOWER SECTIONS AS WELL AS SECTIONS IN CONTACT WITH NET THAMES TO BE CREOSOTE TREATED BEFORE FORMING INTO POSITIVE TRUSS TO BE SECURED TO WALLS AT WALLFACE WITH 15mm GALT STEEL WIRE TIES, BUILT INTO WALLS WITH 6 BRICK COURSES.



**FOUNDATION PLAN:**  
**NUTRITION CENTRE:**  
**Scale 1:100.**

**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 700 mm build in Balustrade
- 4) Gallery positions to be determined as per site prescribed overall drainage design
- 5) If 2 coats sealant on all exposed trusses (sand off all SABS & other markings)
- 6) 50 mm mineral wool insulation to be installed where there are ceilings
- 7) Blinds plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings
- 8) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm
- 9) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers

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**SIGNATURE TABLE**

DISCIPLINE	SIGNATURE	DATE
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ROADS/STORMWATER		
WATER AND SANITATION		
ENVIRONMENTAL OFFICER		

**REVISIONS**

SIZE ON ORIGINAL DRAWING 100 mm



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

INSTITUTION  
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SERVICE  
**RESTORATIVES, REPAIRS & ADDITIONS**

CONTRACT SECTION  
**DOCUMENTATION & PROCUREMENT**

DISCIPLINE PROJECT STAGE  
**ARCHITECTURAL 4**

WORK DESCRIPTION - SUB DIVISION  
**SECTIONS**

DRAWING DESCRIPTION  
**NUTRITION CENTRE**

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

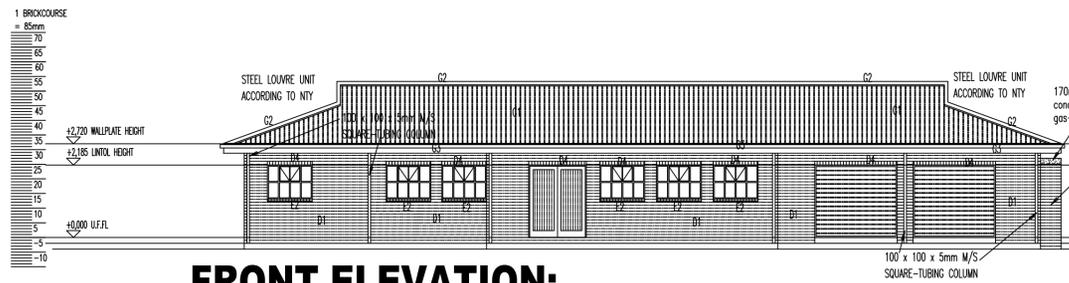
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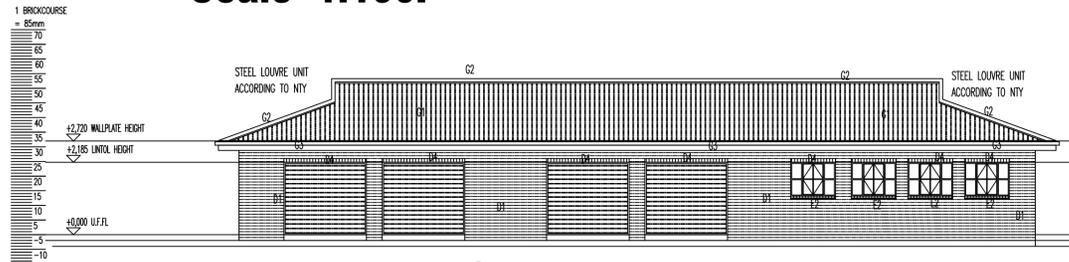
CONSULTANT :

CONTRACTOR :

CADD SYSTEM	AUTO CAD	FILE NAME
SIZE	DRAWING NUMBER	REV 2
<b>A1</b>	<b>AA214-15-NC-PL03</b>	



**FRONT ELEVATION:  
NUTRITION CENTRE:  
Scale 1:100.**



**REAR ELEVATION:  
NUTRITION CENTRE:  
Scale 1:100.**



**SIDE ELEVATION:  
NUTRITION CENTRE:  
Scale 1:100.**



**SIDE ELEVATION:  
NUTRITION CENTRE:  
Scale 1:100.**

**CONSTRUCTION NOTES**

- 1 BRICKCOURSE = 65mm
- Foundations:  
 1) STYP FOUNDATION - 700x200mm 150kg CONCRETE STYP FOUNDATION.  
 2) TOP OF FOUNDATION TO BE MIN 300mm BELOW NGL.  
 3) FILING - APPROVED UNDORE FILING COMPACTED IN LAYERS OF 100mm.  
 4) GALLEY FLOORING TO BE DETERMINED AS PER SITE PRESCRIBED OVERALL DRAINAGE DESIGN AND WELL BEING TO COMPLY WITH SABS 1044 & 1045.
- Surfacedbeds & floors:  
 1) SURFACEDBEDS - 80mm THICK 150kg CONCRETE SURFACEDBED ON 100mm GREEN SAND.  
 2) WOODEN FLOOR FINISHING SURFACEDBEDS TO BE 150mm THICK 150kg CONCRETE SURFACEDBED ON 100mm GREEN SAND.  
 3) SCREED & FLOOR FINISH - "Wet Lay" 30mm THICK FIBRE FIBRE FLOOR SHEETING ON 14 SMOOTH COARSE SAND SCREED TO A TOTAL THICKNESS OF 30mm ALL LAY AND FINISHED STRICTLY TO MANUFACTURERS SPEC.  
 4) SCREED & FLOOR FINISH - 30mm 14 COARSE SAND SCREED TO REINFORCE "Wet Lay" 30mm THICK FIBRE FIBRE FLOOR SHEETING AND FINISHED STRICTLY TO MANUFACTURERS SPEC.  
 5) APRON - 100mm WIDE 150kg CONCRETE APRON WITH WOOD FLOOR FINISH APRON TO BE CAST IN LAYERS OF 100mm TO MAKE A 1:100 FALL AWAY FROM BUILDING.
- Skirtings:  
 1) SKIRTING - 70mm HIGH "Wet Lay" FIBRE FIBRE SKIRTING AND FINISH TO WALL AT 40mm C/C.
- Walls & Structure:  
 1) EXTERNAL WALLS - APPROVED FACEWORK WALLS IN STRETCHWORK TO REINFORCE 100mm WIDE 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS.  
 2) BRICKWORK: 800 BRICKWORK TO 230 AND 115 WALL FOUNDATION WALLS - EVERY 2ND COURSE SUPERSTRUCTURE - EVERY 4TH COURSE OVER OPENINGS FINISHED IN BRICKWORK EVERY COURSE FOR 4 COURSES EXCLUDING 300mm BEYOND OPENING IN BOTH DIRECTIONS.  
 3) 230x70mm SP BEAM TO BE BUILT IN A TIE DOWN TO EXTERIOR COLUMNS WITH 12mm GALVANIZED WIRE TIE BEAM TO BE CHECKED BEFORE PROCEEDING TO BEING BUILT.  
 4) LINES - APPROVED FACEWORK ON EDGE LINES OVER ALL WINDOW & DOOR OPENINGS BRICKWORK TO REINFORCE 100mm SQUARE RECESSED JOINTS.  
 5) D.P.C. - PROVIDE 25 WOODEN P.C. IN WALLS AT FLOOR LEVEL & UNDER ALL EXTERNAL WINDOW CILLS.  
 6) INTERNAL WALLS - APPROVED FACEWORK WALLS IN STRETCHWORK TO REINFORCE 100mm WIDE 6mm DEEP SQUARE RECESSED JOINTS IN BOTH DIRECTIONS UNDER AND OVER CEMENT PLASTER POLYM SILEX ACRIAL PA. COLOR AS PER ARCHITECT.  
 7) WALL TIES - PROVIDE STANDARD 120x120mm WHITE GLAZED WALL TIES FROM FLOOR TO TOP OF WINDOW HEAD(CORNER) TIES TO BE USED WITH MANUFACTURERS APPROVED TUNG STITCHING AND WIRE TUNG STITCHING.
- Window Sills:  
 1) INTERNAL WINDOW CILL - 150mm THICK COARSE CONCRETE CILL BEHIND 14 COARSE SAND WATER SAND & APPLY ALUMINUM RESISTANT SEALER AND TWO COATS OF WHITE PRIMER.  
 2) EXTERNAL WINDOW CILL - APPROVED FACEWORK ON EDGE, TO WHICH WALL JOINTS TO BE SQUARE & RECESSED.
- Ceiling & Cornice:  
 1) CORNICE - 75mm DEPTH CHIEF CORNICE WELLED TO WALL AND CEILING AT 40mm CENTERS MAX AND TO REINFORCE FRAME FINISH TO WHICH CEILING.  
 2) CEILING - 6mm COARSE FIBRE CONCRETE WELLED TO 30x20mm SP BRACKETS AT WALL 40mm C/C WITH COLOURED CLAY WALLS. PROVIDE GALVANIZED H-PROFILE ANCHOR STRIPS TO BE FINISHED. PREPARE & APPLY 150mm UNIVERSAL UNDERCOAT & TWO COATS PLASTER POLYM SILEX ACRIAL PA. COLOR AS PER ARCHITECT.
- Roof & Facia:  
 1) ROOF SHEETING - 100mm "Wet Lay" ROOF SHEETING IN CHIMNEYWAY FINISH ON 100x100mm SP BRACKETS AT WALL 1200mm C/C ON PITCHER & APPROVED PRE-FABRICATED ROOF BRASS SYSTEM.  
 2) ROOF SINKS - SINKS TO BE INSTALLED UNFINISHED ROOFS AND FLASHINGS IN FINISH TO WHICH ROOF CEILING.  
 3) RACK & CITTERS - 250x100mm THICK FIBRE CONCRETE RACK, SCREW FINISH TO BRASS DIALS & COUNTER BUSHES WITH COARSE SAND BRASS SINKERS. PREPARE & APPLY ONE UNIVERSAL UNDERCOAT & TWO COATS PLASTER POLYM SILEX ACRIAL PA. COLOR AS PER ARCHITECT.  
 4) BRASS SYSTEM UNDER PITCHER & APPROVED PRE-FABRICATED SYSTEM AT 1200mm C/C WALL FINISHING 50 x 70mm SA PIPE AT 1000mm C/C WALL. WALL HAVE 1:4 TO 1:6 TO BE CHECKED BEFORE FINISHING. CERTIFICATE & GUARANTEE FOR DESIGN & SECTION TO BE SUPPLIED BY TRUSS MANUFACTURER. ALL EXPOSED TRUSS SECTIONS AS WELL AS SECTIONS IN CONTACT WITH MET THINGS TO BE CHECKED BEFORE FINISHING. TWO COATS PLASTER POLYM SILEX ACRIAL PA. COLOR AS PER ARCHITECT. WALLS TO BE CHECKED TO WALLS AT WALLPLATE WITH 12mm GALV. STEEL WIRE TIE WALL WITH 1 BRICK COURSE.

**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 700 mm build in Substrate.
- 4) Gully positions to be determined as per site prescribed overall drainage design.
- 5) If 2 coats sealant on all exposed trusses (sand off all SABS & other masonry).
- 6) 50 mm mineral wool insulation to be installed where there are ceilings.
- 7) Bladder plastic insulation with foil backing to be installed with wire supports in all areas that do not have ceilings.
- 8) West Facing Facades to have standardised aluminium louvers from below eaves to drop of 1200 mm.
- 9) Trusses to be designed in accordance with SABS 0400 & approved by Project Engineers.

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**SIGNATURE TABLE**

DISCIPLINE	SIGNATURE	DATE
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ENVIRONMENTAL OFFICER		

REV No:      DATE:      DESCRIPTION:

**REVISIONS**

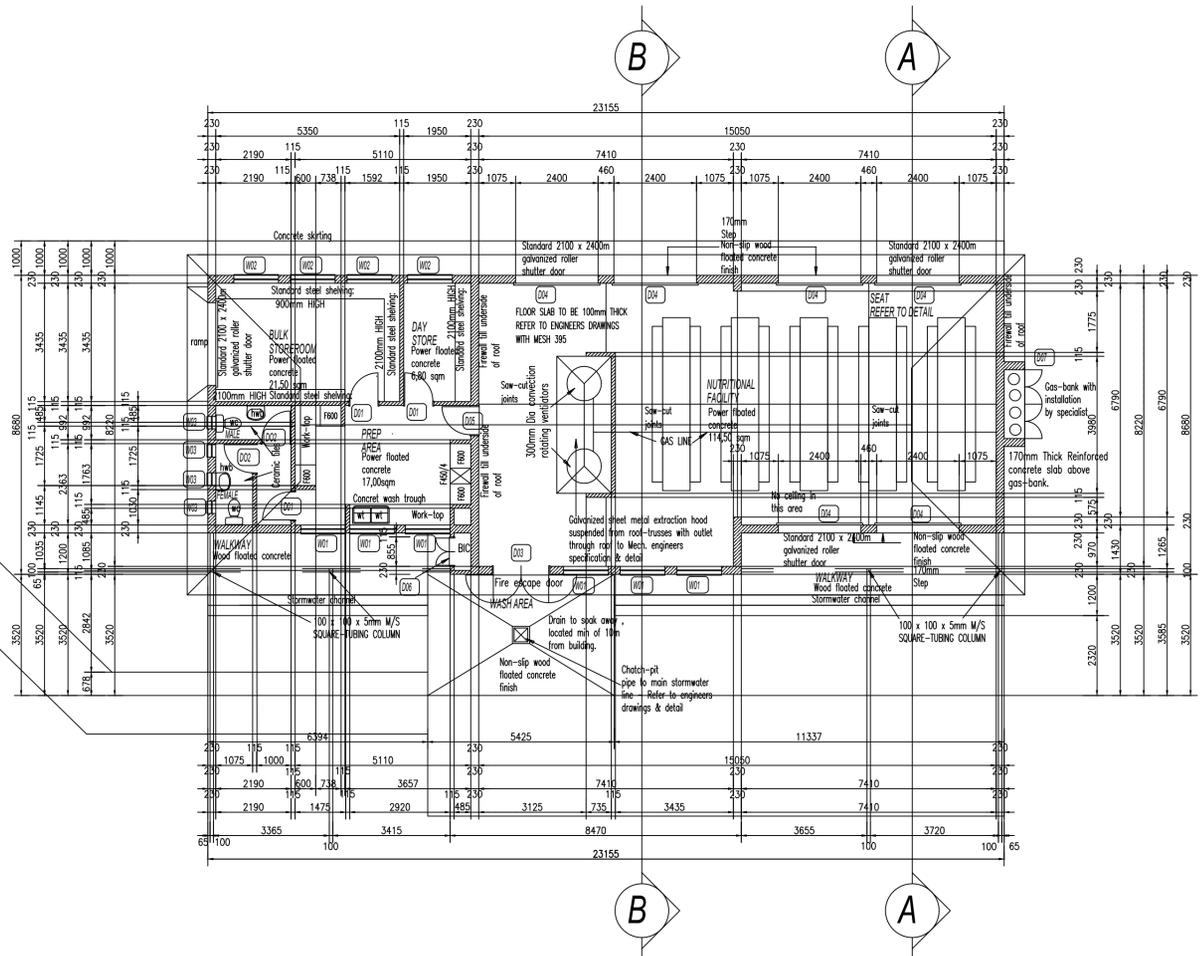
SIZE ON ORIGINAL DRAWING 100 mm

**LIMPOPO**  
 PROVINCIAL GOVERNMENT  
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**DEPARTMENT OF PUBLIC WORKS, ROADS & INFRASTRUCTURE**

INSTITUTION  
**NALEDI YA MESO SCHOOL**  
 SERVICE  
**RESTORATIVES, REPAIRS & ADDITIONS**  
 CONTRACT DESCRIPTION  
**DOCUMENTATION & PROCUREMENT**  
 DISCIPLINE PROJECT STAGE  
**ARCHITECTURAL 4**  
 WORK DESCRIPTION - SUB DIVISION  
**GROUND FLOOR PLAN**  
 DRAWING DESCRIPTION  
**NUTRITION CENTRE**

FILE No.	ITEM No.	
DESIGN	DRAWN	
SCALE 1:100	CHECKED	
DATE	RESPONSIBLE PROFESSIONAL SIGNATURE PR NUMBER	
	DRAWING CO-ORDINATED	
	CONSULTANT :	
	CONTRACTOR :	
CADD SYSTEM	AUTO CADD	FILE NAME
SIZE	DRAWING NUMBER	REV 2
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**GROUND FLOOR PLAN:  
NUTRITION CENTRE:  
Scale 1:100.**

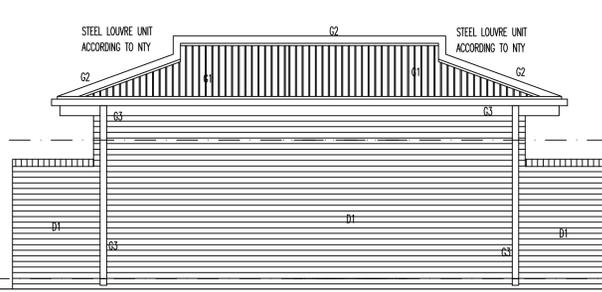
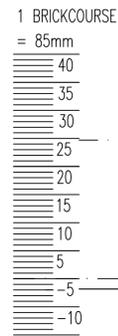


**NOTES THAT MUST FORM PART OF THE GENERAL REQUIREMENTS FOR LPG INSTALLATIONS:**

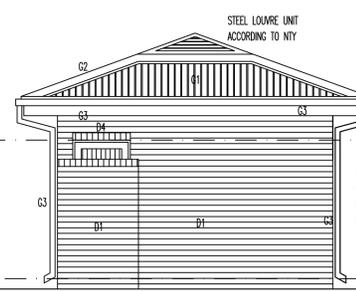
1. GENERAL NOTES:
  - A) THE INSTALLATION MUST BE INSTALLED IN COMPLIANCE WITH SANS 10040, 10087.1.
  - B) ONE 5kg DCP BC TYPE FIRE EXTINGUISHER MUST BE PROVIDED FOR INSTALLATION.
  - C) SABS APPROVED SHOWER:
    1. NO SMOKING
    2. NO OPEN FIRES
    3. NO UNAUTHORIZED PERSON
    4. NO LITTING AT CASE-SIGNS MUST BE PROVIDED.
    5. NO CYLINDERS ARE ALLOWED TO BE STORE OUTSIDE AN APPROVED LPG CASE.
    - 6) LPG SIGNS TO BE DISPLAYED ON FRONT OF THE ENTRANCE OF THE PREMISES.
    - 7) SCHEDULE HAVE ADEQUATE VENTILATION.
    - 8) A TEST CERTIFICATE MUST BE PROVIDED BY THE INSTALLER.
    - 9) ALL ELECTRICAL CABLES MUST BE A MINIMUM OF 150mm FROM ANY GAS PIPES, EXCEPT ELECTRICAL CABLES IN APPLIANCES.
    - 10) GAS PIPING SHALL NOT BE USED AS AN EARTH FOR ELECTRICAL CIRCUITS.
    - 11) ALL BURIED STEEL PIPES MUST BE CORROSION PROTECTED IN AN APPROVED MANNER.
    - 12) SCHEDULE 40 STEEL PIPES AND WROUGHT STEEL FITTINGS COMPLY WITH SANS 62-1 TO BE USED.
    - 13) ALL UNDERGROUND PIPES MUST BE PLACED A MINIMUM OF 50mm BELOW THE TOP OF THE CONCRETE.
    - 14) PIPES THAT ARE TO BE EMBEDDED IN CONCRETE MUST BE TESTED BEFORE THE COMPLETION OF THE FLOOR.
    - 15) PIPE LINES TO BE TESTED PRIOR TO COMPLETION OF THE INSTALLATION.
    - 16) HOWEVER, KITCHENS MUST BE ADEQUATELY VENTILATED BY THE USE OF AT LEAST ONE APPROX. IN AN INTERNAL WALL.
    - 17) A TEST CERTIFICATE MUST BE PROVIDED BEFORE ANY PRODUCT IS SUPPLIED.
    - 18) GAS SURVEY LINE MUST BE MARKED PROX.
    - 19) THE USER MUST ENSURE THAT APPLIANCES, COMPONENTS OF A SYSTEM BE INSPECTED AT REGULAR INTERVALS NOT EXCEEDING 5 YEARS.
    - 20) ALL HOSES USED ON OUTDOOR INSTALLATIONS MUST BE REPLACED AFTER 5 YEARS.
2. THE LOCAL FIRE DEPARTMENT MUST BE INFORMED AT LEAST TWO(2) WORKING DAYS IN ADVANCE BEFORE WORK ON THE INSTALLATION.
3. GENERAL:
  - A) APPLICATION FOR A CERTIFICATE OF REGISTRATION MUST BE APPLIED FOR AT THE FIRE DEPARTMENT, ON COMPLETION OF THE INSTALLATION BEFORE ANY PRODUCT (LPG) IS SUPPLIED.

**NOTES: FURNITURE:**

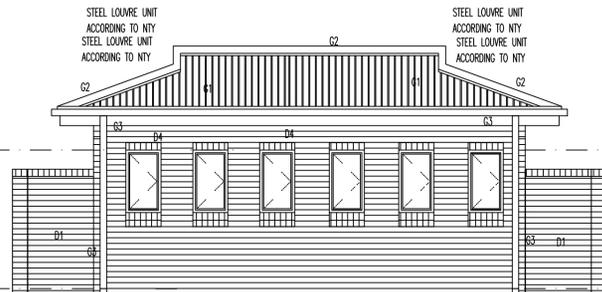
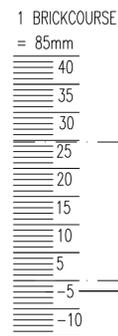
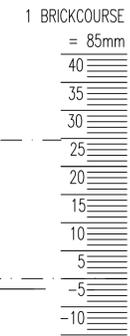
FORMICA TOPS WITH WHITE MELAMINE  
 CUPBOARD ACC TO DETAIL LAYOUT PROVIDED BY  
 CUPBOARD CONNECTIONS.  
 SHELVING: CODE SST2100/300 & SST2100/450 WITH MILD  
 STEEL SHELVING  
 SHELVING COMPLETE WITH WALLBANDS & BRACKETS  
 AS SUPPLY BY CUPBOARD CONNECTIONS.



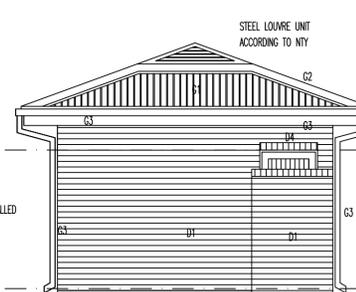
**BACK ELEVATION:**  
**Scale 1:50.**



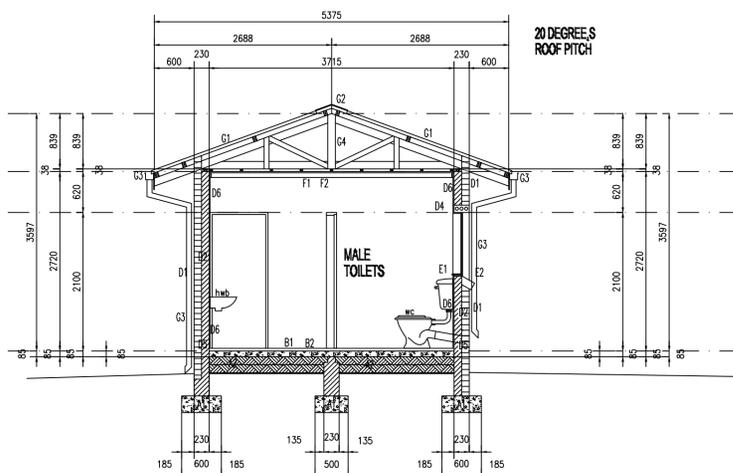
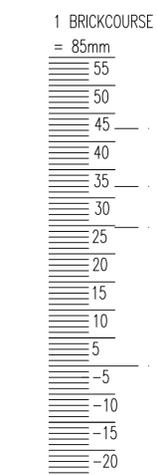
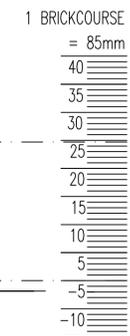
**SIDE ELEVATION:**  
**Scale 1:100.**



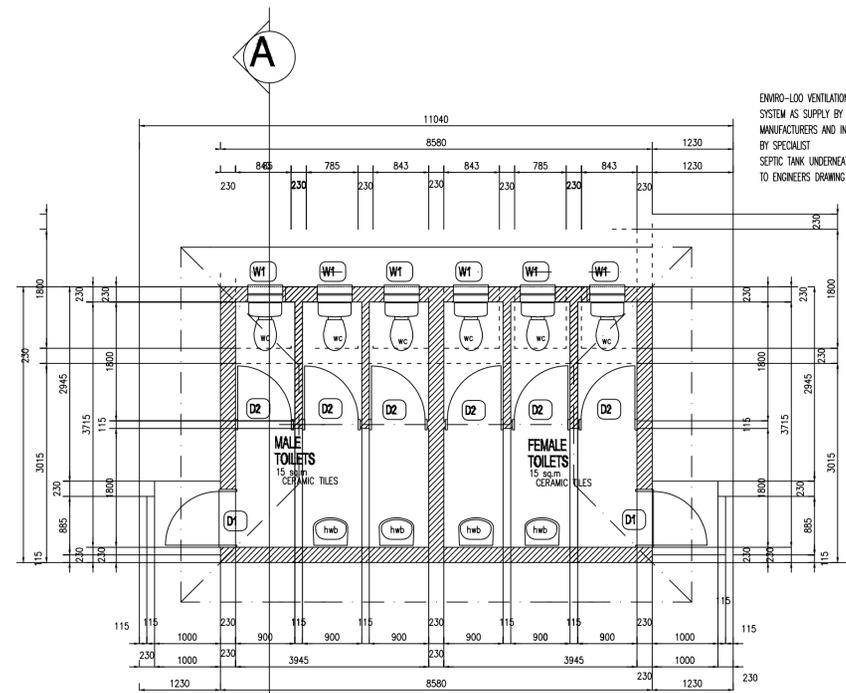
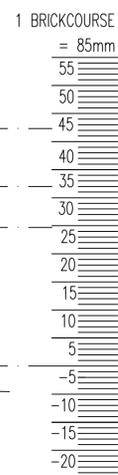
**FRONT ELEVATION:**  
**Scale 1:50.**



**SIDE ELEVATION:**  
**Scale 1:100.**



**SECTION A-A:**  
**Scale 1:50.**



**GROUND FLOOR PLAN:**  
**MALE & FEMALE TOILETS:**  
**ENVIRO-LOO:**  
**Scale 1:100.**

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



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

INSTITUTION  
**NALEDI YA MESO SECONDARY SCHOOL**

SERVICE  
**RESTORATIVES, REPAIRS & ADDITIONS**

CONTRACT / SECTION  
**DOCUMENTATION & PROCUREMENT**

DISCIPLINE PROJECT STAGE  
**ARCHITECTURAL 4**

WORK DESCRIPTION - SUB DIVISION  
**ELEVATIONS, FLOOR PLAN, SECTION**

DRAWING DESCRIPTION  
**ABLUTIONS**

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

RESPONSIBLE PROFESSIONAL

DATE	NAME	SIGNATURE	PR NUMBER

DRAWING CO-ORDINATED

CONSULTANT :

CONTRACTOR :

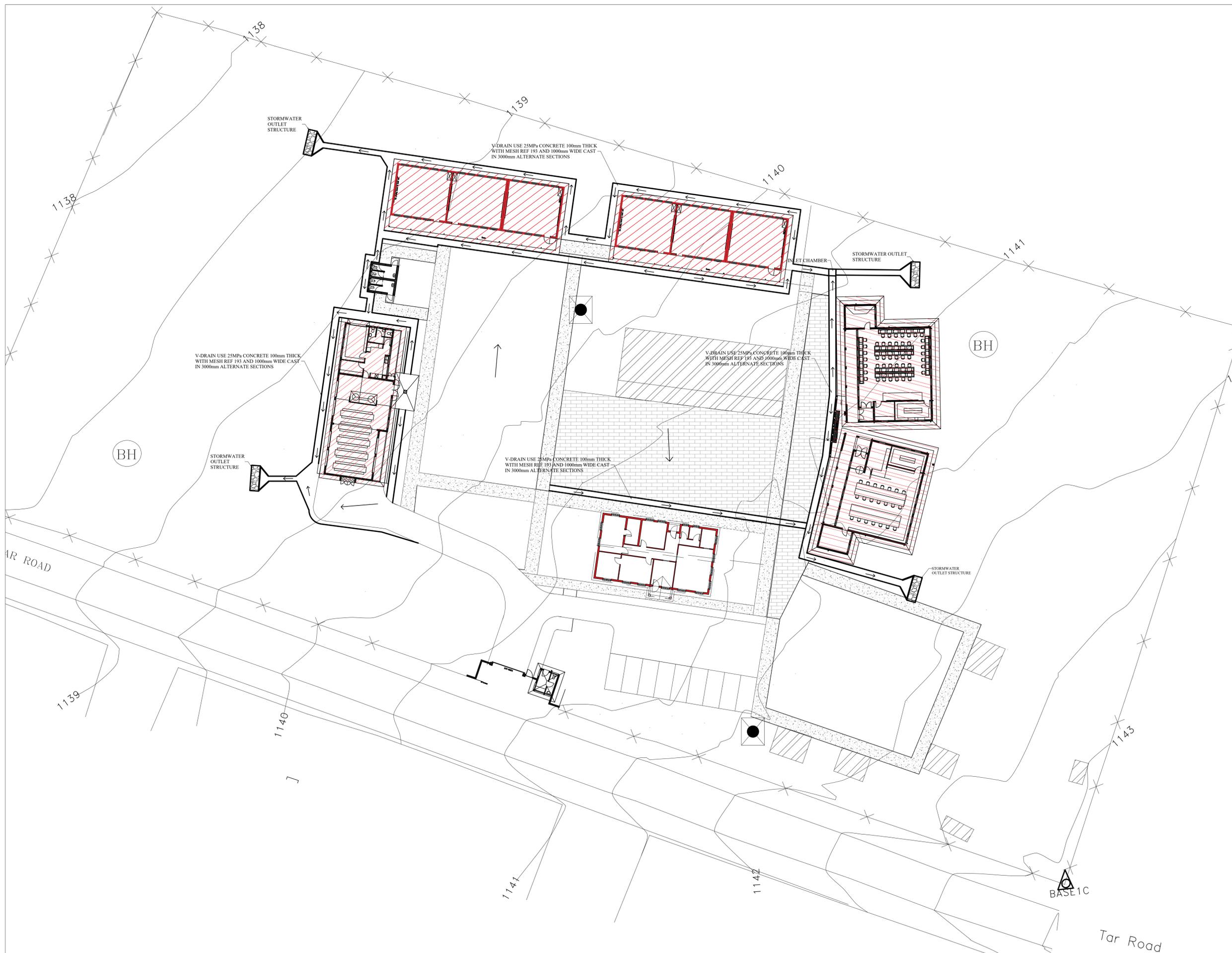
CONTRACTOR :

CADD SYSTEM	AUTO CAD	FILE NAME
SIZE	DRAWING NUMBER	REV2

**A1**



# **CIVIL DRAWINGS**



No.	DATE	AMENDMENT	UNIT
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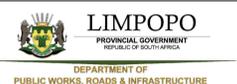
**GENERAL CONSTRUCTION NOTES**

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTS DRAWINGS.
2. THIS DRAWING NOT TO BE SCALED.
3. ALL DIMENSIONS ARE IN MILLIMETRES.
4. ALL WORK TO BE CARRIED OUT IN COMPLIANCE WITH SABS 1200 STANDARDISED SPECIFICATION AND THE PROJECT SPECIFICATIONS.
5. PRIOR TO THE START OF CONSTRUCTION, ALL SERVICES WHICH ARE TO BE CROSSED MUST BE EXPOSED TO CONFIRM THEIR POSITIONS AND LEVELS. ANY DISCREPANCY IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER.

**BULK EARTHWORKS:**

1. THE APPLICABLE STANDARD SPECIFICATION IS SABS 1200 D - 1988 (AS AMENDED) WHICH SHOULD BE READ IN CONJUNCTION WITH THE RELEVANT ODENDAAL PROJECT SPECIFICATION.

CAD FILE NAME: BUILDINGS PAGE TYPE: A1

  
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 Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

  
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DISCIPLINE: CIVIL ENGINEERING

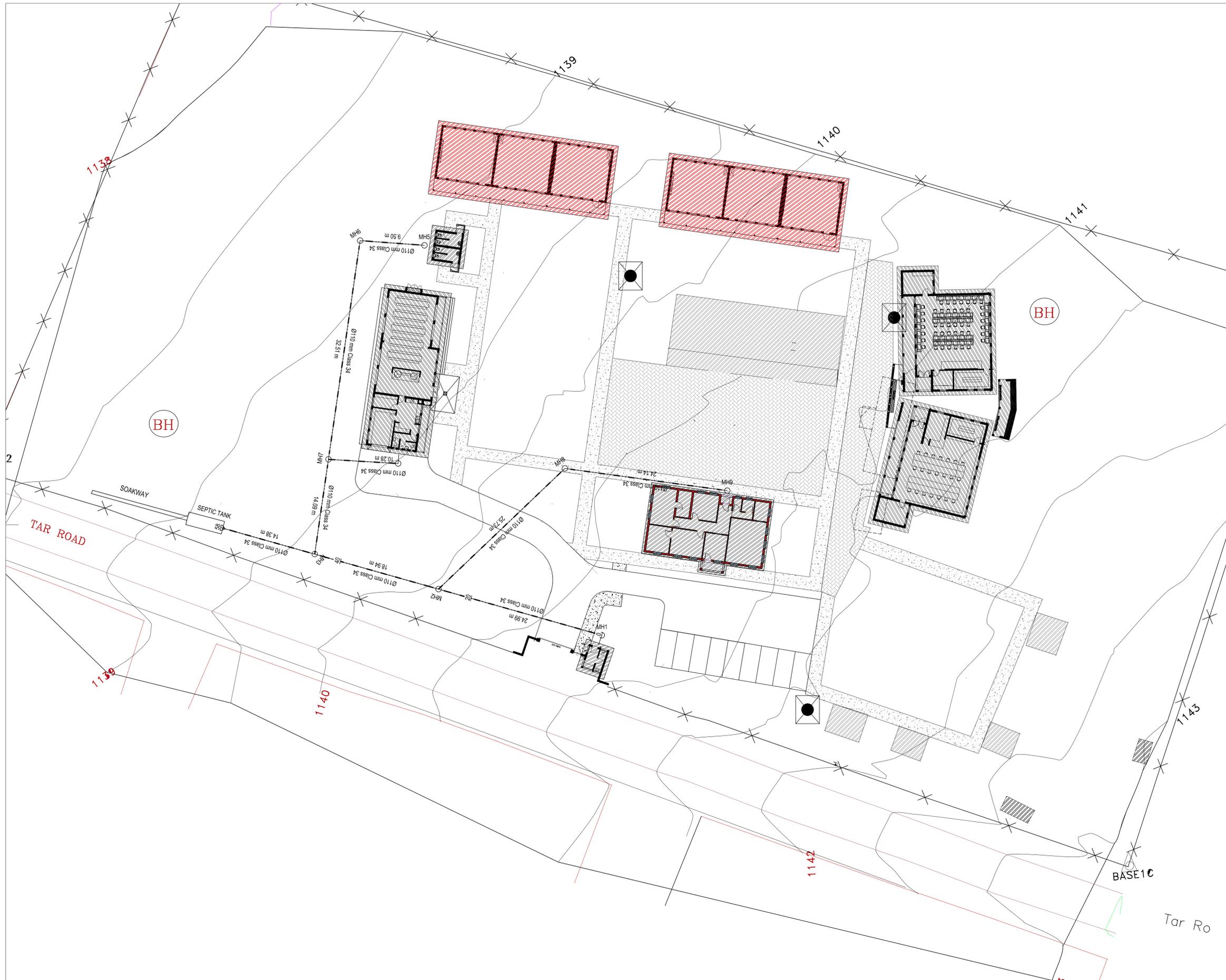
SERVICE: NALEDI YA MESO - PRIMARY SCHOOL  
DEPARTMENT OF EDUCATION

Project number

drawing title: **STORMWATER MANAGEMENT LAYOUT**

REF. NO.: A DESIGNED: K.M.  
SCALE: NTS DRAWN: K.M.  
DATE: December 2023 CHECKED: P.M.  
DRAWING NO.: ISSUED FOR TENDER

NALEDI YA MESO/C/001/A



No.	DATE	AMENDMENT	UNIT
A	11/12/2023	ISSUED FOR TENDER	IM - CS

**GENERAL CONSTRUCTION NOTES**

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTS DRAWINGS.
2. THIS DRAWING NOT TO BE SCALED.
3. ALL DIMENSIONS ARE IN MILLIMETRES.
4. ALL WORK TO BE CARRIED OUT IN COMPLIANCE WITH SABS 1200 STANDARDISED SPECIFICATION AND THE PROJECT SPECIFICATIONS.
5. PRIOR TO THE START OF CONSTRUCTION, ALL SERVICES WHICH ARE TO BE CROSSED, ALL EXPOSED TO CONFIRM THEIR POSITIONS AND LEVELS. ANY DISCREPANCY IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER.

**BULK EARTHWORKS:**

1. THE APPLICABLE STANDARD SPECIFICATION IS SABS 1200 D - 1988 (AS AMENDED) WHICH SHOULD BE READ IN CONJUNCTION WITH THE RELEVANT ODENDAAL PROJECT SPECIFICATION.

CAD FILE NAME: BUILDINGS PAGE TYPE: A1

  
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DISCIPLINE: CIVIL ENGINEERING

SERVICE: NALEDI YA MESO - PRIMARY SCHOOL  
DEPARTMENT OF EDUCATION

Project number

drawing title: SEWER LAYOUT

REF. NO.: A DESIGNED: K.M.  
SCALE: NTS DRAWN: K.M.  
DATE: December 2023 CHECKED: P.M.  
DRAWING NO.: ISSUED FOR TENDER

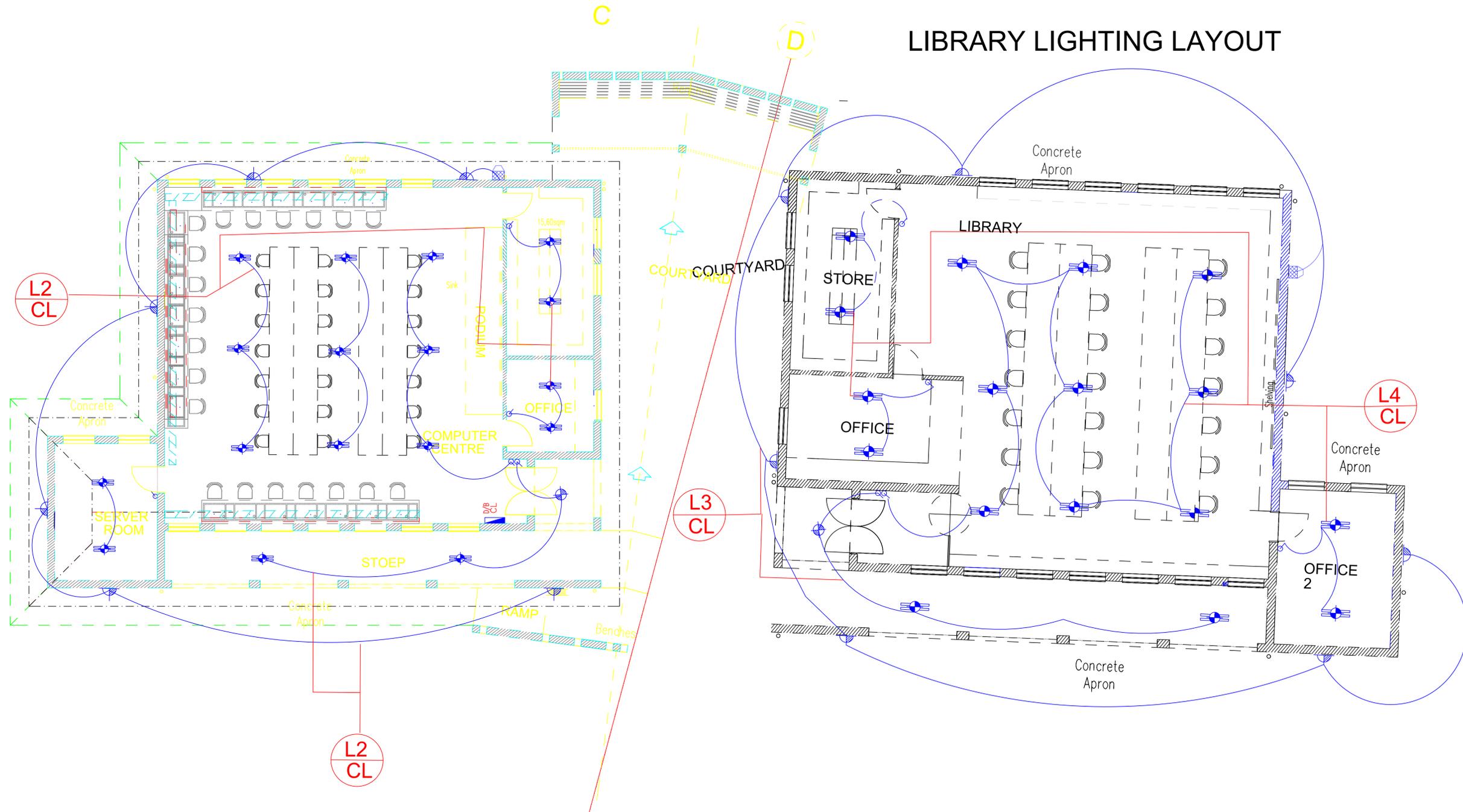
NALEDI YA MESO/C/002/A

# **ELECTRICAL DRAWINGS**

SYMBOL	DESCRIPTION
	ONE LEVER LIGHT SWITCH
	DAYLIGHT SWITCH
	FLUSH MOUNTED DISTRIBUTION BOARD
	CEILING MOUNT BULKHEAD COMPLETE WITH 20W LED
	WALL MOUNT BULKHEAD COMPLETE WITH 20W LED
	1200mm LONG SURFACE MOUNT OPEN CHANNEL LIGHT FITTINGS, COMPLETE WITH 2 x 28W LED LIGHT

## COMPUTER CENTER LIGHTING LAYOUT

## LIBRARY LIGHTING LAYOUT



No.	DATE	AMENDMENT	INIT
0	03/08/23	Issued for Tender	VL

cad file name: BUILDINGS page type: A 1

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Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

discipline: ELECTRICAL  
service: DEPARTMENT OF EDUCATION – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

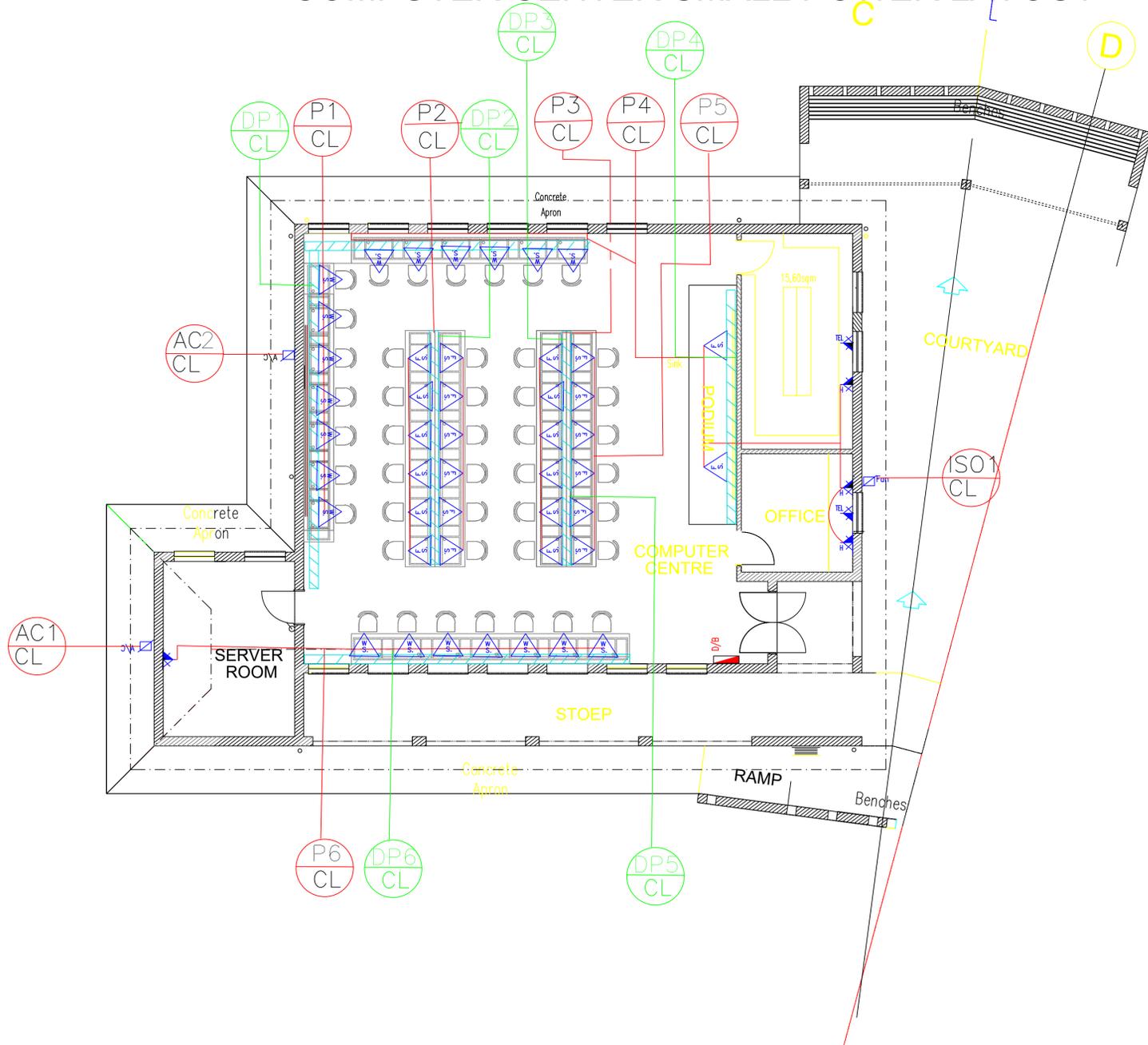
Project number: ---  
drawing title: COMPUTER CENTER & LIBRARY LIGHTING LAYOUT

ref no: --- designed: VL  
scale: NTS drawn: VL  
date: JULY 2023 checked: MN  
Professional Signature: M Ntshani issued for: TENDER  
drawing number: LDPW-NA-EL-01

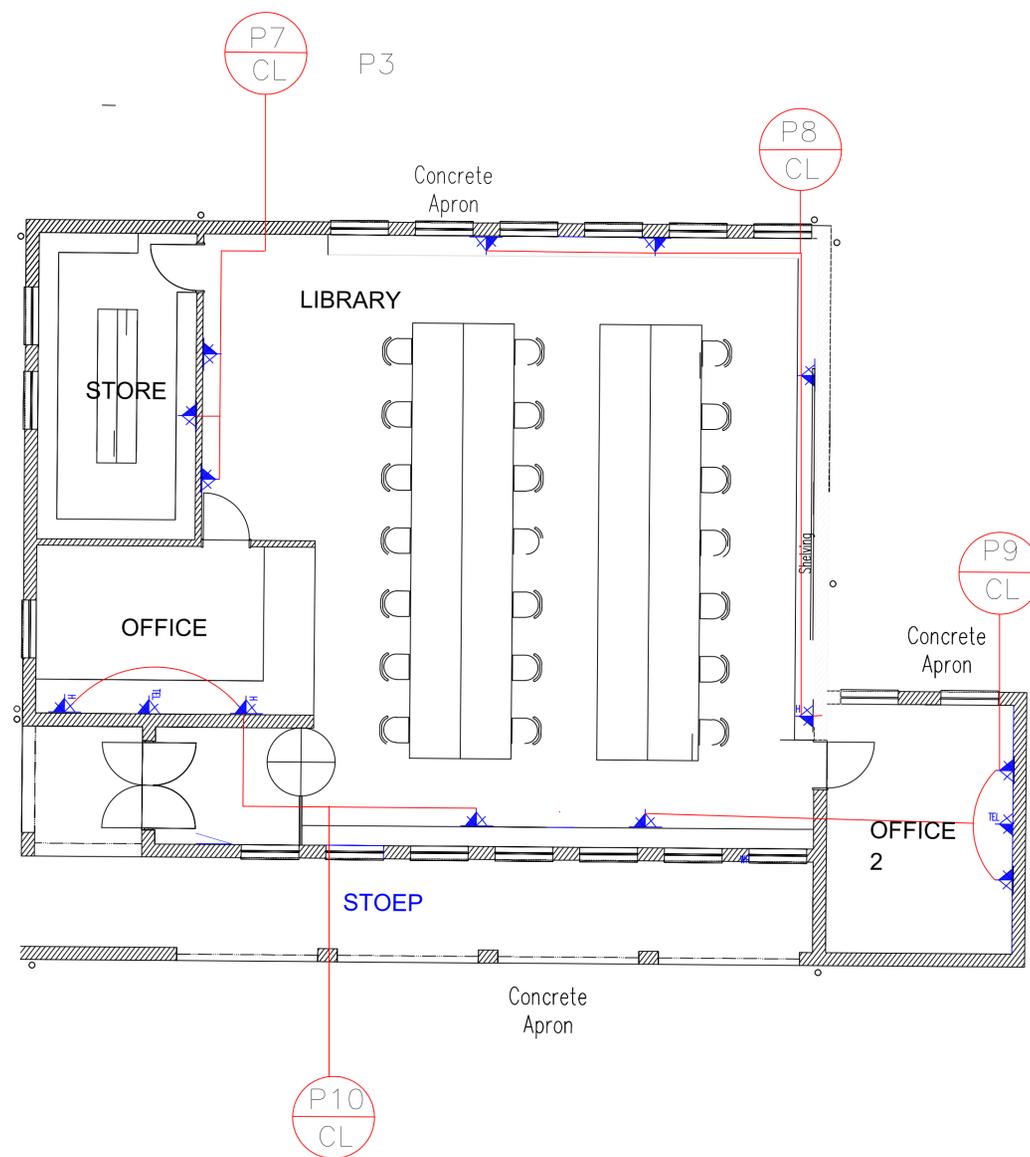
SYMBOL	DESCRIPTION
	ONE LEVER LIGHT SWITCH
	DAYLIGHT SWITCH
	FLUSH MOUNTED DISTRIBUTION BOARD
	16 AMPERE 3-PIN SINGLE SOCKET OUTLET
	16 AMPERE 3-PIN DOUBLE SOCKET OUTLET
	16 AMPERE 3-PIN DEDICATED SOCKET OUTLET
	1 x TELEPHONE POINT OUTLET
	SINGLE PHASE ISOLATOR
	WORKSTATION 1x Telephone Point, 1x Data Point, 1x Standard Plug, 1x Dedicated Plug
	POWER SKIRTING (as specified)
	WORKSTATION 1 x Data Point, 1x Standard Plug, 1x Dedicated Plug

No.	DATE	AMENDMENT	INIT
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### COMPUTER CENTER SMALL POWER LAYOUT



### LIBRARY SMALL POWER LAYOUT



cad file name: BUILDINGS page type: A 1

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Works Towers 43 Church street, Polokwane, 0700  
Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

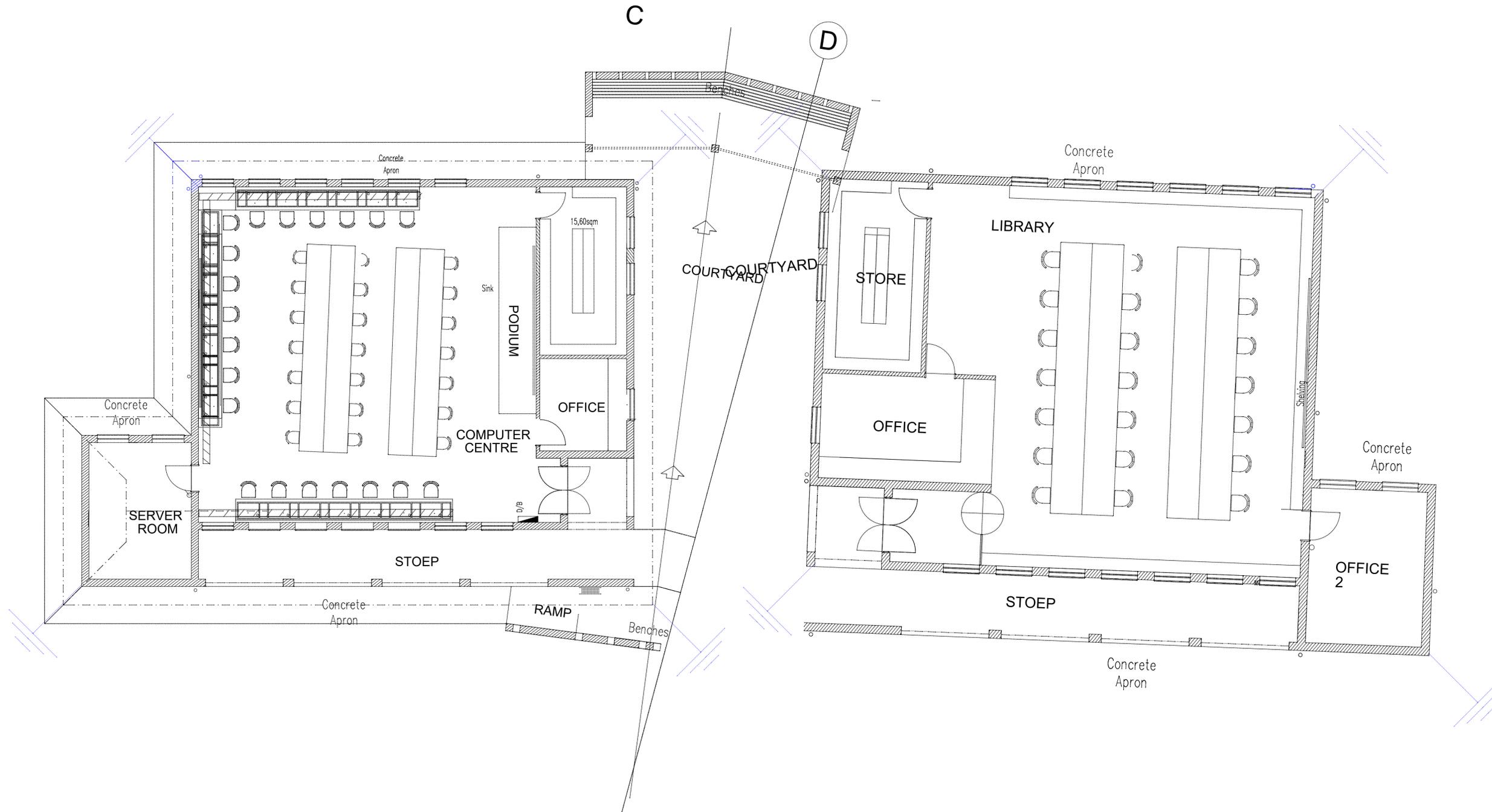
discipline: ELECTRICAL  
service: DEPARTMENT OF EDUCATION – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: ---  
drawing title: COMPUTER CENTER & LIBRARY SMALL POWER LAYOUT

ref.no: --- designed: VL  
scale: NTS drawn: VL  
date: JULY 2023 checked: MN  
Professional Signature: M Nshani Issued for: TENDER  
drawing number: LDPW-NA-EL-02

SYMBOL	DESCRIPTION
	EARTHING SYSTEM

## COMPUTER CENTER & LIBRARY EARTHING LAYOUT



No.	DATE	AMENDMENT	INIT
0	03/08/23	Issued for Tender	VL

cad file name: BUILDINGS page type: A 1

  
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 Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

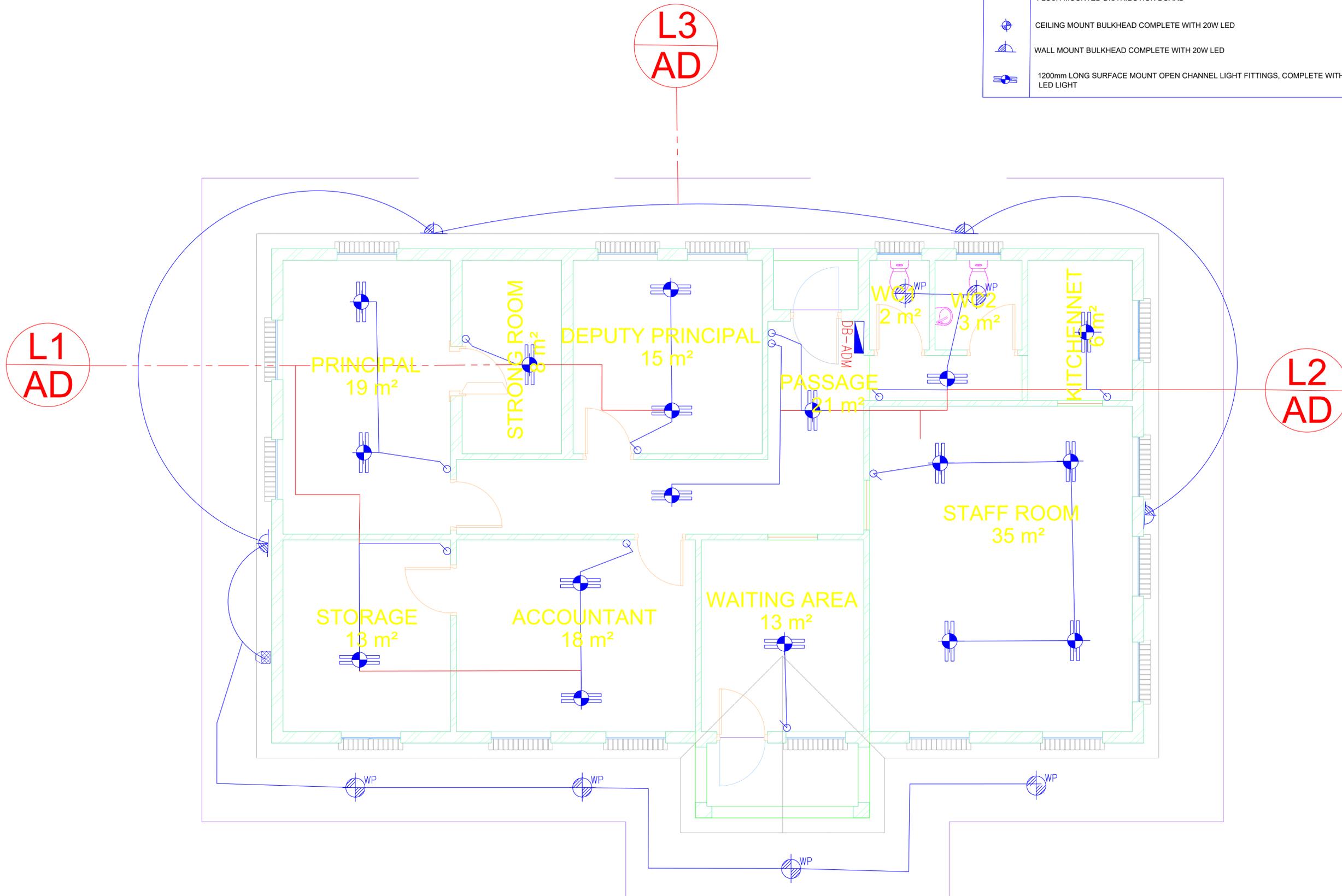
  
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 Works Towers 43 Church street, Polokwane, 0700  
 Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

discipline: ELECTRICAL  
 service: DEPARTMENT OF EDUCATION – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: ---  
 drawing title: LIBRARY & COMP EARTHING LAYOUT

ref.no: --- designed: VL  
 scale: NTS drawn: VL  
 date: JULY 2023 checked: MN  
 Professional Signature: M Ntshani Issued for: TENDER  
 drawing number: LDPW-NA-EL-03

SYMBOL	DESCRIPTION
	ONE LEVER LIGHT SWITCH
	DAYLIGHT SWITCH
	FLUSH MOUNTED DISTRIBUTION BOARD
	CEILING MOUNT BULKHEAD COMPLETE WITH 20W LED
	WALL MOUNT BULKHEAD COMPLETE WITH 20W LED
	1200mm LONG SURFACE MOUNT OPEN CHANNEL LIGHT FITTINGS, COMPLETE WITH 2 x 28W LED LIGHT



No.	DATE	AMENDMENT	INIT
0	03/08/23	Issued for Tender	VL

cad file name: BUILDINGS page type: A 1

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Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

discipline: ELECTRICAL

service: DEPARTMENT OF EDUCATION  
- COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: - - - -

drawing title: SMALL ADMIN LIGHTING LAYOUT

ref no: - - - - designed: VL

scale: NTS drawn: VL

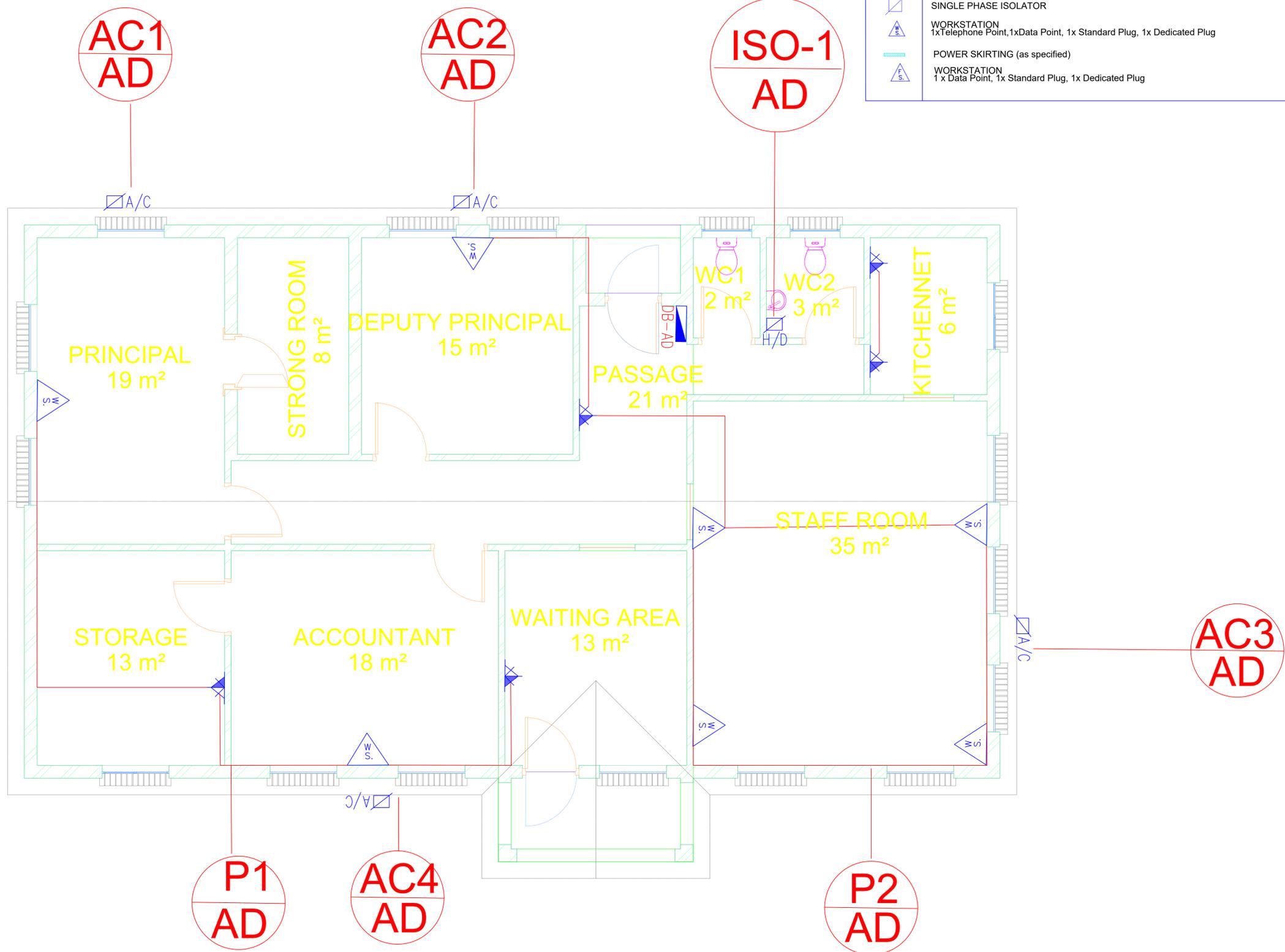
date: JULY 2023 checked: MN

Professional Signature: M Ntshani Issued for: TENDER

drawing number: - - - -

LDPW-NA-EL-04

SYMBOL	DESCRIPTION
	ONE LEVER LIGHT SWITCH
	DAYLIGHT SWITCH
	FLUSH MOUNTED DISTRIBUTION BOARD
	16 AMPERE 3-PIN SINGLE SOCKET OUTLET
	16 AMPERE 3-PIN DOUBLE SOCKET OUTLET
	16 AMPERE 3-PIN DEDICATED SOCKET OUTLET
	1 x TELEPHONE POINT OUTLET
	SINGLE PHASE ISOLATOR
	WORKSTATION 1x Telephone Point, 1x Data Point, 1x Standard Plug, 1x Dedicated Plug
	POWER SKIRTING (as specified)
	WORKSTATION 1 x Data Point, 1x Standard Plug, 1x Dedicated Plug



No.	DATE	AMENDMENT	INIT
0	03/08/23	Issued for Tender	VL

cad file name: BUILDINGS page type: A 1

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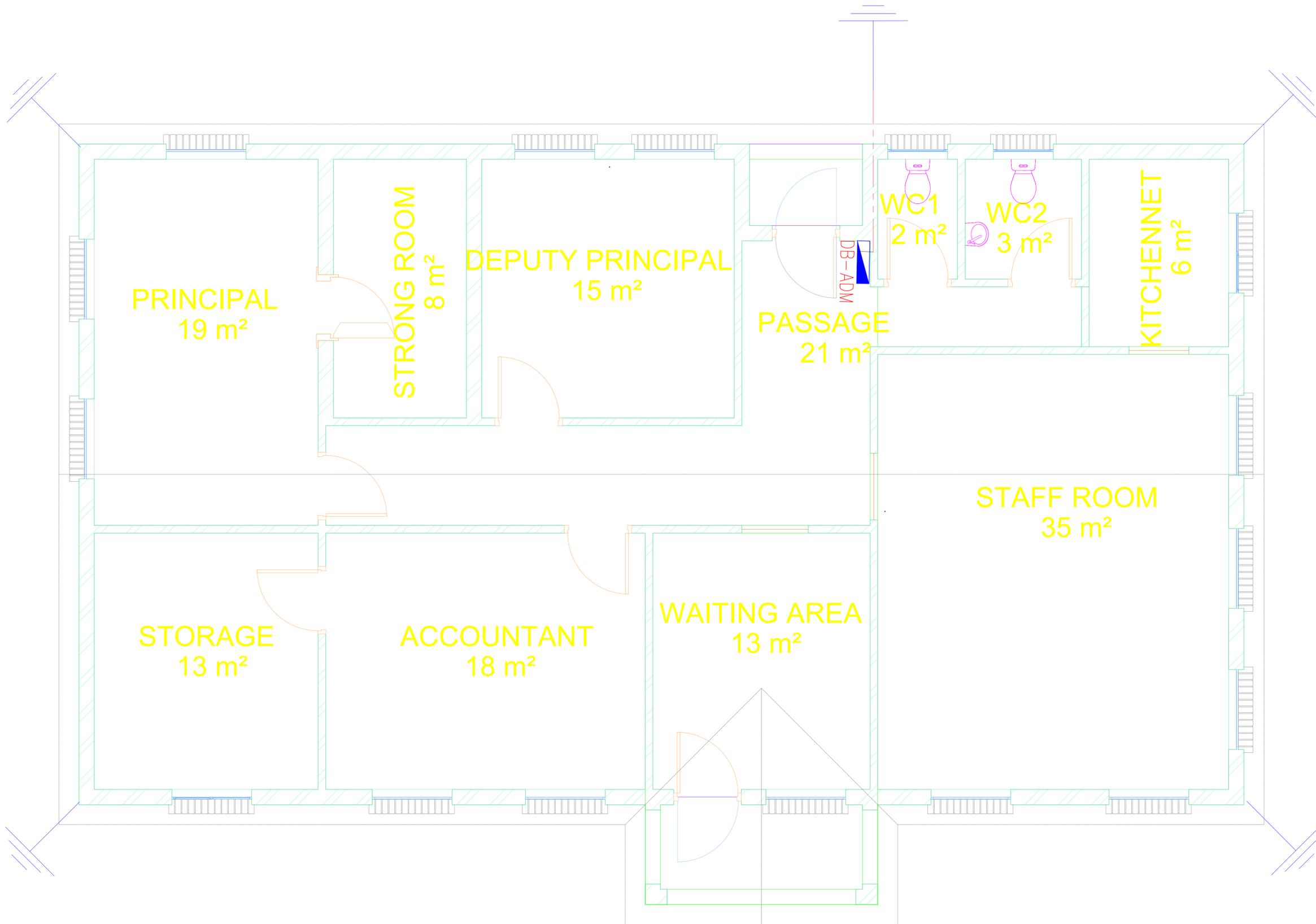
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discipline: ELECTRICAL  
service: DEPARTMENT OF EDUCATION – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: ----  
drawing title: SMALL ADMIN SMALL POWER LAYOUT

ref.no: ---- designed: VL  
scale: NTS drawn: VL  
date: JULY 2023 checked: MN  
Professional Signature: M Ntshani Issued for: TENDER  
drawing number: LDPW-NA-EL-05

SYMBOL	DESCRIPTION
	EARTHING SYSTEM



No.	DATE	AMENDMENT	INIT
0	03/08/23	Issued for Tender	VL

cad file name: BUILDINGS page type: A 1

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Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

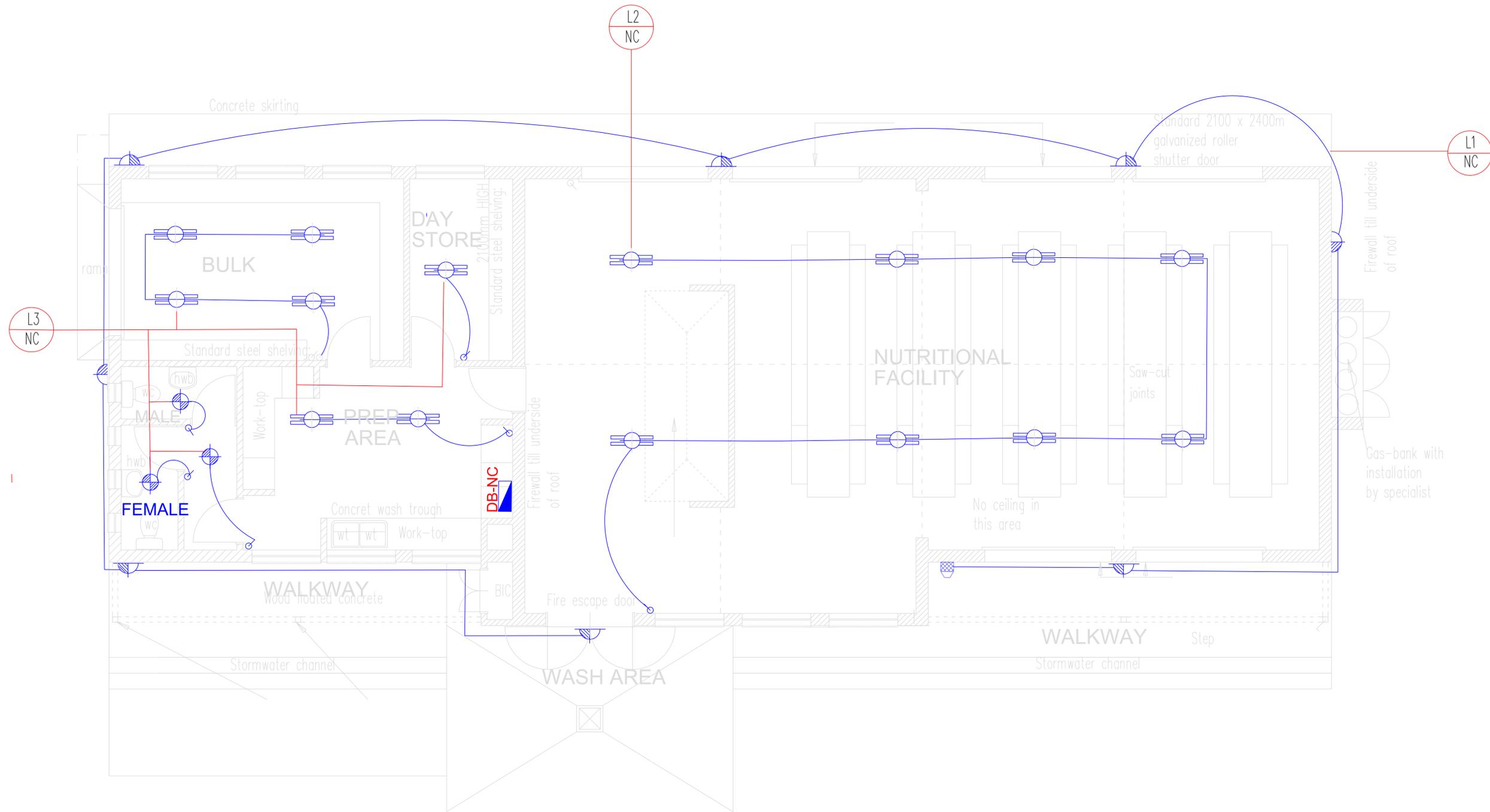
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Limpo Department of Public  
Works, Roads & Infrastructure  
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Polokwane, 0700  
Website: [www.dpw.limpopo.gov.za](http://www.dpw.limpopo.gov.za)

discipline: ELECTRICAL  
service: DEPARTMENT OF EDUCATION  
- COMPLETION OF NALEDI YA  
MESO SECONDARY SCHOOL

Project number: ---  
drawing title: SMALL ADMIN EARTHING  
LAYOUT

ref.no: --- designed: VL  
scale: NTS drawn: VL  
date: JULY 2023 checked: MN  
Professional Signature: M Ntshani Issued for: TENDER  
drawing number: LDPW-NA-EL-06

SYMBOL	DESCRIPTION
	ONE LEVER LIGHT SWITCH
	DAYLIGHT SWITCH
	FLUSH MOUNTED DISTRIBUTION BOARD
	CEILING MOUNT BULKHEAD COMPLETE WITH 20W LED
	WALL MOUNT BULKHEAD COMPLETE WITH 20W LED
	1200mm LONG SURFACE MOUNT OPEN CHANNEL LIGHT FITTINGS, COMPLETE WITH 2 x 28W LED LIGHT



No.	DATE	AMENDMENT	INIT
0	03/08/23	Issued for Tender	VL

cad file name: BUILDINGS page type: A 1

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discipline: ELECTRICAL  
service: DEPARTMENT OF EDUCATION – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: ---  
drawing title: NUTRITION CENTER LIGHTING LAYOUT

ref no: --- designed: VL  
scale: NTS drawn: VL  
date: JULY 2023 checked: MN  
Professional Signature: M Ntshani Issued for TENDER drawing number: LDPW-NA-EL-07

SYMBOL	DESCRIPTION
	EARTHING SYSTEM

No.	DATE	AMENDMENT	INIT
0	03/08/23	Issued for Tender	VL



**BCEW installed in 20mm Ø steel galvanized conduit**

cad file name: BUILDINGS page type: A 1

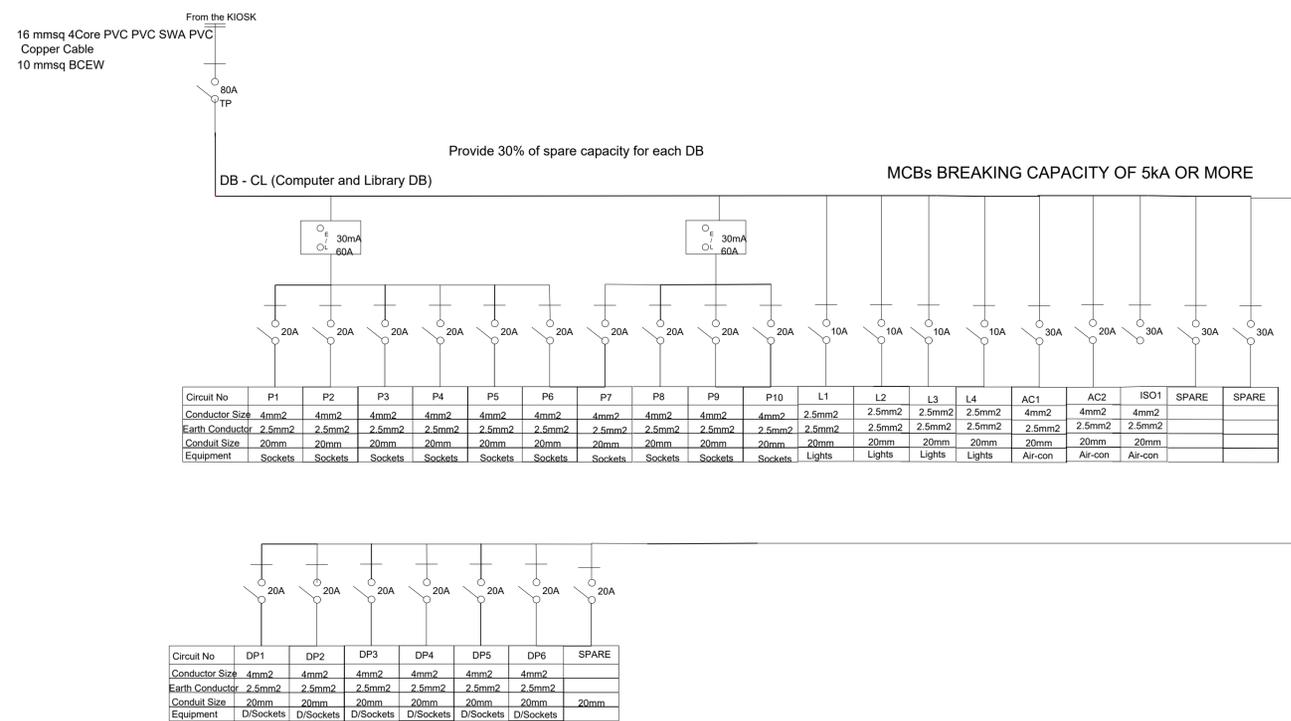
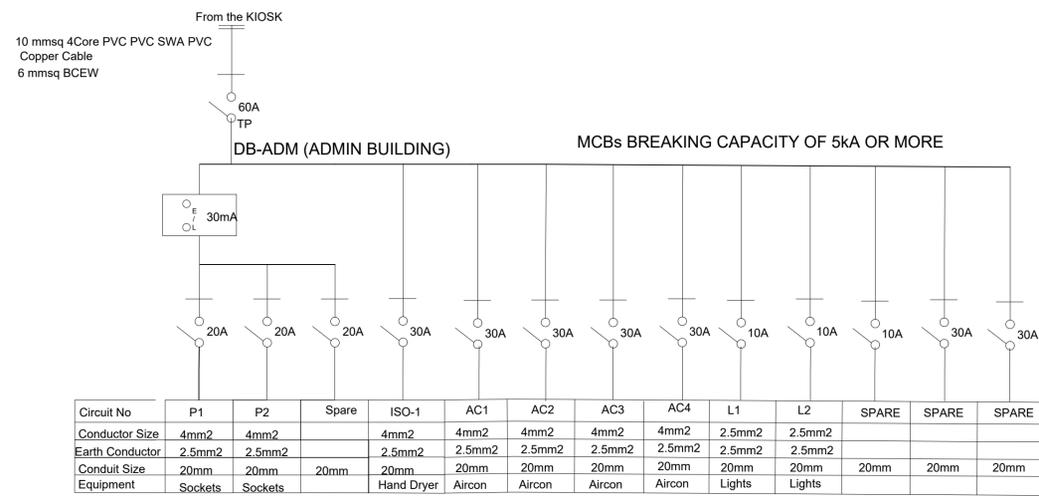
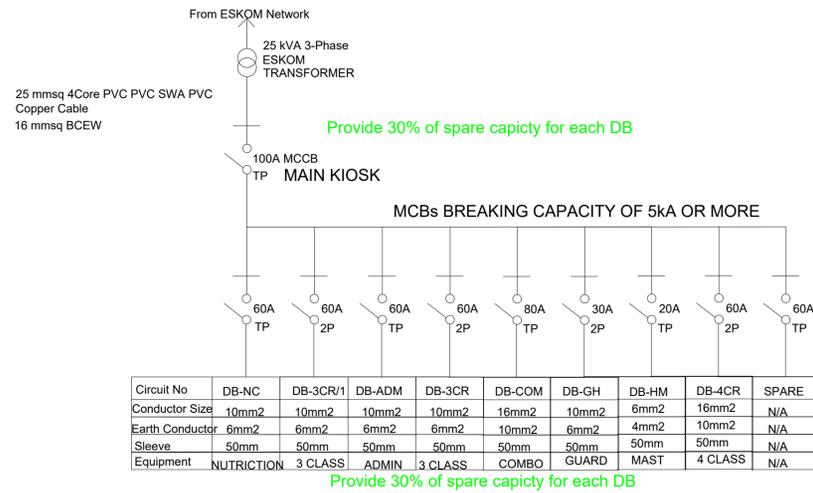

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discipline: ELECTRICAL  
 service: DEPARTMENT OF EDUCATION  
 – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: -----  
 drawing title: TOILETS EARTHING LAYOUT

ref.no. ----- designed VL  
 scale NTS drawn VL  
 date JULY 2023 checked MN  
 Professional Signature: M Ntshani Issued for TENDER  
 drawing number  
 LDPW-NA-EL-08



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discipline: ELECTRICAL

service: DEPARTMENT OF EDUCATION  
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Project number: - - - - -

drawing title: SINGLE LINE DIAGRAMS  
PAGE 1 OF 2

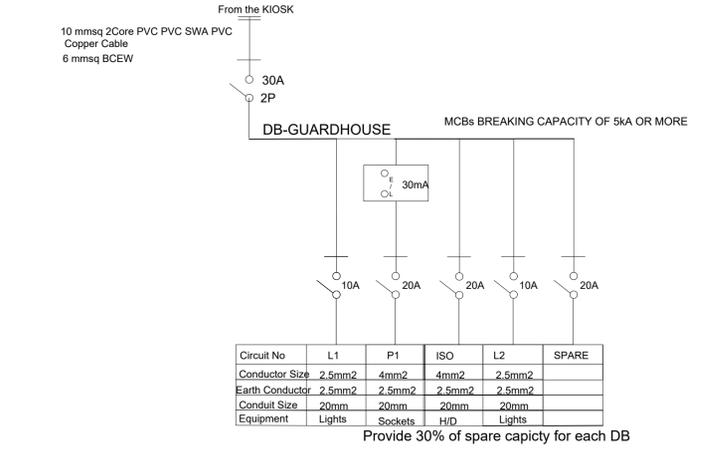
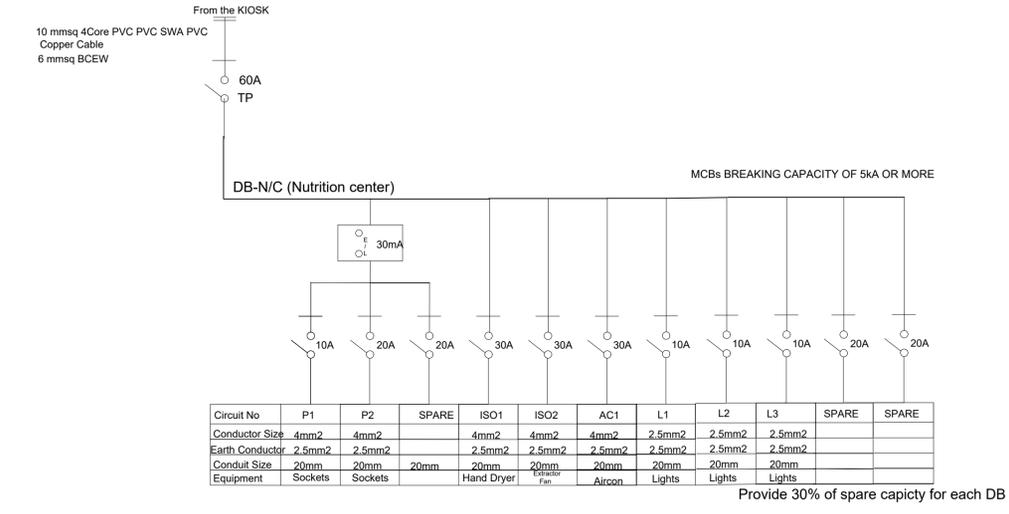
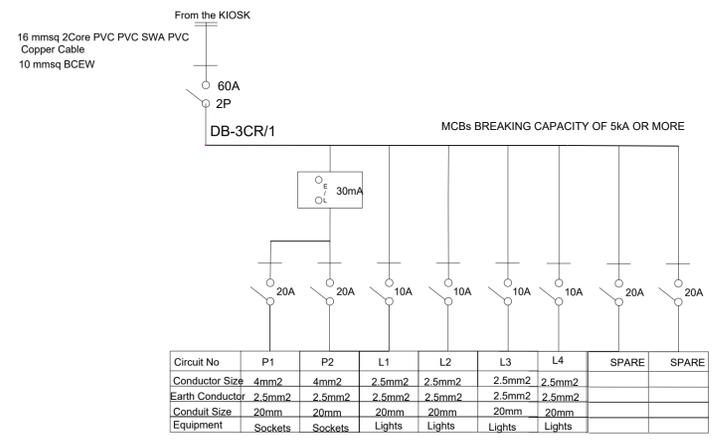
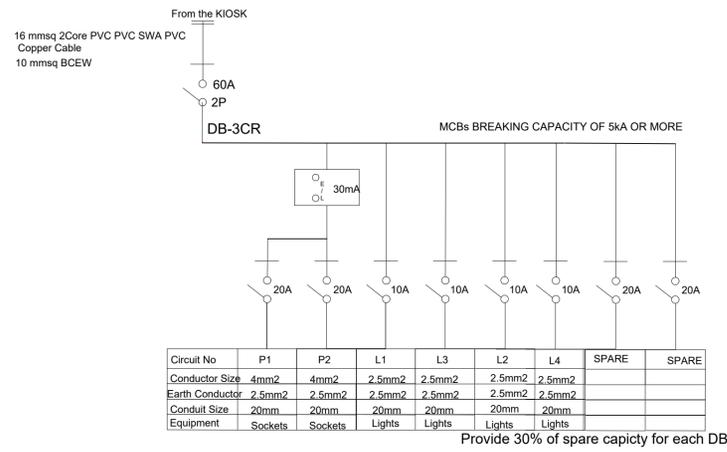
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date: JULY 2023 checked MN

Professional Signature: M Ntshani Issued for TENDER

drawing number: LDPW-NA-EL-09



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discipline: ELECTRICAL

service: DEPARTMENT OF EDUCATION – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: -----

drawing title: SINGLE LINE DIAGRAM PAGE 2 OF 2

ref.no. ----- designed VL  
scale: NTS drawn VL  
date: JULY 2023 checked MN  
Professional Signature: M Ntshani issued for TENDER  
drawing number: LDPW-NA-EL-10

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discipline: ELECTRICAL  
service: DEPARTMENT OF EDUCATION – COMPLETION OF NALEDI YA MESO SECONDARY SCHOOL

Project number: ---  
drawing title: SITE DEVELOPMENT PLAN

ref.no: --- designed: VL  
scale: NTS drawn: VL  
date: JULY 2023 checked: MN  
Professional Signature: M Ntshani issued for: TENDER  
drawing number: LDPW-NA-EL-11

