

PREAMBLES FOR TRADES

*The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated descriptions utilised in these bills of quantities by inter alia referring to SANS construction standards. **Where such preambles are not applicable** (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the Standard System of Measuring Building Work (seventh edition) for works within South Africa or the Standard Method of Measuring Building Work for Africa 2015 (first edition) for works elsewhere in Africa, represent the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications*

Note that the text of the Standard System of Measuring Building Work (seventh edition) and that of the Standard Method of Measuring Building Work for Africa 2015 (first edition) is the same

The latest version of the General Preambles for Trades should be referred to should the General Preambles for Trades 2017 be revised in future

The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these **bills of quantities** and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained

Supplementary preambles and/or specifications are incorporated in these **bills of quantities** to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles

The **contractor's** prices for all items throughout these **bills of quantities** shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications

STRUCTURE OF THIS PRELIMINARIES BILL

Section A : A recital of the headings of the individual clauses in the aforementioned **JBCC** Principal Building Agreement

Section B : A recital of the headings of the individual clauses in the aforementioned **JBCC** General Preliminaries

Section C : Any special clauses to meet the particular circumstances of the project

PRICING OF PRELIMINARIES

Should the **contractor** select Option A in the **contract data** for the adjustment of **preliminaries**, the amounts entered against the relevant items in these **preliminaries** are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

SECTION A: PRINCIPAL BUILDING AGREEMENT**Interpretation (A1-A7)**

- 1 Clause 1.0 - Definitions and interpretation

Pricing of bills of quantities

The **contractor** is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this **agreement**. Value Added Tax (VAT) is to be separately stated on the summary page of these **bills of quantities**

R

Prices for all **construction equipment**, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary

The items in these **bills of quantities** utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the **contractor** shall, before submission of his tender, call for a written directive from the **principal agent**, failing which it shall be assumed that the **contractor** has allowed in his pricing for materials and workmanship in terms of international best practice

If the **contractor** constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:

1. These persons are deemed to be jointly and severally liable to the **employer** for the performance of this **agreement**
2. These persons shall notify the **employer** of their leader who has assigned authority to bind the **contractor** and each of these persons
3. The **contractor** shall not alter its composition or legal status without the prior written consent of the **employer**

F: V:
T:

Item

2 Clause 2.0 - **Law**, regulations and **notices**

F: V:
T:

Item

R

-4-

	Brought Forward			R
3	<p>Clause 3.0 - Offer and acceptance</p> <p>F:..... V:..... T:.....</p>	Item		
4	<p>Clause 4.0 - Cession and assignment</p> <p>F:..... V:..... T:.....</p>	Item		
5	<p>Clause 5.0 - Documents</p> <p>Value Added Tax</p> <p>Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)</p> <p>The principal agent shall decide which portion of the priced document may be used as a specification of materials and goods or methods, if any</p> <p>Electronic issue of drawings</p> <p>All drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.6]</p> <p>F:..... V:..... T:.....</p>	Item		
6	<p>Clause 6.0 - Employer's agents</p> <p>Delegated authority</p> <p>The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions:</p> <p>1. <u>Architect</u></p> <p><i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i></p>			
	Carried Forward			R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries & General</p>			

<p style="text-align: right;">Brought Forward</p> <p>1.1 Duties [6.2] :</p> <p>The architect is responsible for the architectural design, functional design and quality inspection of the works</p> <p>1.2 Contract instructions [6.2; 17.1] :</p> <p>1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>1.2.3 The site [13.0]</p> <p>1.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>1.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>1.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>1.2.7 Removal or re-execution of work</p> <p>1.2.8 Removal or substitution of any materials and goods</p> <p>1.2.9 Protection of the works</p> <p>1.2.10 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>1.2.11 Rectification of defects [21.2]</p> <p>1.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p style="text-align: right;">Carried Forward</p>			R	
<p>Section No. 1 Bill No. 1 Preliminaries & General</p>			R	

<p style="text-align: right;">Brought Forward</p> <p>1.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums</p> <p>1.2.14 Appointment of a subcontractor [14.0; 15.0]</p> <p>1.2.15 Work by direct contractors [16.0]</p> <p>1.2.16 On suspension or termination, protection of the works, removal of construction equipment and surplus materials and goods [29.0] ?</p> <p>2. <u>Quantity surveyor</u></p> <p>2.1 Duties [6.2] :</p> <p>The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works</p> <p>2.2 Contract instructions [6.2; 17.1] :</p> <p>2.2.1 No contract instructions delegated to the quantity surveyor ?</p> <p>3. <u>Civil and structural engineer</u></p> <p><i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i></p> <p>3.1 Duties [6.2] :</p> <p>The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works</p> <p>3.2 Contract instructions [6.2; 17.1] :</p> <p>3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>3.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries & General</p>			<p>R</p>	
			R	

<p style="text-align: right;">Brought Forward</p> <p>3.2.3 The site [13.0]</p> <p>3.2.4 Compliance with the law, regulations and bylaws [2.1]</p> <p>3.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>3.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>3.2.7 Removal or re-execution of work</p> <p>3.2.8 Removal or substitution of any materials and goods</p> <p>3.2.9 Protection of the works</p> <p>3.2.10 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>3.2.11 Rectification of defects [21.2]</p> <p>3.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>3.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums ?</p> <p>4. <u>Mechanical engineer</u></p> <p><i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i></p> <p>4.1 Duties [6.2] :</p> <p>The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the works ? and, where appointed by the employer for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries & General</p>			R	
			R	

<p style="text-align: right;">Brought Forward</p> <p>4.2 Contract instructions [6.2; 17.1] :</p> <p>4.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>4.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>4.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>4.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>4.2.6 Removal or re-execution of work</p> <p>4.2.7 Removal or substitution of any materials and goods</p> <p>4.2.8 Protection of the works</p> <p>4.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>4.2.10 Rectification of defects [21.2]</p> <p>4.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>4.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums ?</p> <p>5. <u>Electrical engineer</u></p> <p><i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i></p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries & General</p>			<p>R</p>	
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<p style="text-align: right;">Brought Forward</p> <p>5.1 Duties [6.2] :</p> <p>The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the works ? and, where appointed by the employer for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p>5.2 Contract instructions [6.2; 17.1] :</p> <p>5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>5.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>5.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>5.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>5.2.6 Removal or re-execution of work</p> <p>5.2.7 Removal or substitution of any materials and goods</p> <p>5.2.8 Protection of the works</p> <p>5.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>5.2.10 Rectification of defects [21.2]</p> <p>5.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries & General</p>			R	
			R	

<p style="text-align: right;">Brought Forward</p> <p>5.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums ?</p> <p>6. <u>Wet services engineer</u></p> <p><i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i></p> <p>6.1 Duties [6.2] :</p> <p>The wet services engineer is responsible for all aspects of wet services engineering design and quality inspection of the works</p> <p>6.2 Contract instructions [6.2; 17.1] :</p> <p>6.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>6.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>6.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>6.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>6.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>6.2.6 Removal or re-execution of work</p> <p>6.2.7 Removal or substitution of any materials and goods</p> <p>6.2.8 Protection of the works</p> <p>6.2.9 Making good physical loss and repairing damage to the works [23.2.2]</p> <p>6.2.10 Rectification of defects [21.2]</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries & General</p>			R	
			R	

<p style="text-align: right;">Brought Forward</p> <p>6.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion</p> <p>6.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums ?</p> <p>7. <u>Fire consultant</u></p> <p><i>Note that the contract instructions hereinafter are selected from those listed in clause 17.1 of the JBCC PBA</i></p> <p>7.1 Duties [6.2] :</p> <p>The fire consultant is responsible for all aspects of rational fire design and quality inspection of the works</p> <p>7.2 Contract instructions [6.2; 17.1] :</p> <p>7.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement</p> <p>7.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works</p> <p>7.2.3 Compliance with the law, regulations and bylaws [2.1]</p> <p>7.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works</p> <p>7.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>7.2.6 Removal or re-execution of work</p> <p>7.2.7 Removal or substitution of any materials and goods</p> <p>7.2.8 Protection of the works</p> <p style="text-align: right;">Carried Forward</p> <p>Section No. 1 Bill No. 1 Preliminaries & General</p>			R	
			R	

	Brought Forward			R
	7.2.9 Making good physical loss and repairing damage to the works [23.2.2]			
	7.2.10 Rectification of defects [21.2]			
	7.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion , a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion			
	7.2.12 Expenditure of budgetary allowances , prime cost amounts and provisional sums ?			
	8. <u>Health and safety consultant</u>			
	8.1 Duties [6.2] :			
	The health and safety consultant is responsible for all aspects of health and safety of the works . Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works . He shall:			
	8.1.1 Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended			
	8.1.2 Prepare and update the health and safety specification for the works			
	8.1.3 Agree with the contractor the health and safety plan for the works			
	8.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations			
	8.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to?			
	F:..... V:..... T:.....	Item		
7	Clause 7.0 - Design responsibility			
	F:..... V:..... T:.....	Item		
	Carried Forward			R
	Section No. 1 Bill No. 1 Preliminaries & General			

	Brought Forward			R
	<u>Insurances and securities (A8-A11)</u>			
8	<p>Clause 8.0 - Works risk</p> <p>F:..... V:..... T:.....</p>	Item		
9	<p>Clause 9.0 - Indemnities</p> <p>F:..... V:..... T:.....</p>	Item		
10	<p>Clause 10.0 - Insurances</p> <p>F:..... V:..... T:.....</p>	Item		
11	<p>Clause 11.0 - Securities</p> <p>Guarantee for payment</p> <p>The employer shall not provide to the contractor a guarantee for payment</p> <p>[11.5.1]. The contractor shall consequently waive his lien or right of continuing possession of the works [11.10]?</p> <p>Extension of waiver of lien</p> <p>The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10]</p> <p>F:..... V:..... T:.....</p>	Item		
	<u>Execution (A12 - A17)</u>			
12	<p>Clause 12.0 - Obligations of the parties</p> <p>Office accommodation</p> <p>The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]</p>			
	Carried Forward			R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries & General</p>			

	Brought Forward			R
	<p>Notice board</p> <p>The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18]</p> <p>Statutory and other notices</p> <p>The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the works by the contractor. The contractor shall pay all deposits or fees in this regard</p> <p>It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto</p> <p>F:..... V:..... T:.....</p>			
13	<p>Clause 13.0 - Setting out</p> <p>F:..... V:..... T:.....</p>	Item		
14	<p>Clause 14.0 - Nominated subcontractors</p> <p>F:..... V:..... T:.....</p>	Item		
15	<p>Clause 15.0 - Selected subcontractors</p> <p>F:..... V:..... T:.....</p>	Item		
16	<p>Clause 16.0 - Direct contractors</p> <p>Attendance on direct contractors</p> <p>In respect of direct contractors the contractor shall:</p>	Item		
	Carried Forward			R
	<p>Section No. 1 Bill No. 1 Preliminaries & General</p>			

	Brought Forward			R
	<p>1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials</p> <p>2. Allow the use of personnel welfare facilities, where provided</p> <p>3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation</p> <p>4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1]</p> <p>F:..... V:..... T:.....</p>	Item		
17	<p>Clause 17.0 - Contract instructions</p> <p>? Site instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor ?</p> <p>F:..... V:..... T:.....</p> <p><u>Completion (A18 - A24)</u></p>	Item		
18	Clause 18.0 - Interim completion	N/A		
19	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:..... T:.....</p>	Item		
20	<p>Clause 20.0 - Completion in sections</p> <p>F:..... V:..... T:.....</p>	Item		
21	<p>Clause 21.0 - Defects liability period and final completion</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward			R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries & General</p>			

	Brought Forward			R
22	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:..... T:.....</p>	Item		
23	<p>Clause 23.0 - Revision of the date for practical completion</p> <p>Substitution of materials and goods</p> <p>The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8; 23.1 & 2]</p> <p>F:..... V:..... T:.....</p>	Item		
24	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:..... T:.....</p> <p>Payment (A25 - A27)</p>	Item		
25	<p>Clause 25.0 - Payment</p> <p>Prices submitted</p> <p>Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing</p> <p>F:..... V:..... T:.....</p>	Item		
26	<p>Clause 26.0 - Adjustment of the contract value and final account</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]</p>			
	Carried Forward			R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries & General</p>			

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	Brought Forward			R
	F:..... V:..... T:.....	Item		
29	Clause 29.0 - Termination			
	F:..... V:..... T:.....	Item		
	<u>Dispute resolution (A30)</u>			
30	Clause 30.0 - Dispute resolution			
	F:..... V:..... T:.....	Item		
31	<u>Agreement</u>			
	The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties			
	F:..... V:..... T:.....	Item		
32	<u>Contract data</u>			
	Before submission of his tender the contractor is to complete the tenderer's selections in the contract data			
	F:..... V:..... T:.....	Item		
	<u>SECTION B: GENERAL PRELIMINARIES</u>			
	<i>Should it be necessary to expand on any of the General Preliminaries clauses, the user should list the appropriate General Preliminary clause number and heading and insert the relevant provision under a suitable heading in bold as may be necessary</i>			
	<u>Definitions and interpretation (B1)</u>			
33	Clause 1.1 - Definitions			
	F:..... V:..... T:.....	Item		
34	Clause 1.2 - Interpretation			
	F:..... V:..... T:.....	Item		
	Carried Forward			R
	Section No. 1 Bill No. 1 Preliminaries & General			

Brought Forward			R
<u>Documents (B2)</u>			
35	Clause 2.1 - Checking of documents F:..... V:..... T:.....	Item	
36	Clause 2.2 - Provisional bills of quantities Multiple procurement These bills of quantities are in multiple procurement format ie the "wet trades" - earthworks, concrete, formwork and reinforcement, precast concrete, masonry, waterproofing and sub-surface drainage - are provisionally measured and the subsequent trades are budgetary allowances and/or provisional sums F:..... V:..... T:.....	Item	
37	Clause 2.3 - Availability of construction information F:..... V:..... T:.....	Item	
38	Clause 2.4 - Ordering of materials and goods F:..... V:..... T:.....	Item	
<u>Previous work and adjoining properties (B3)</u>			
39	Clause 3.1 - Previous work - dimensional accuracy F:..... V:..... T:.....	Item	
40	Clause 3.2 - Previous work - defects F:..... V:..... T:.....	Item	
41	Clause 3.3 - Inspection of adjoining properties F:..... V:..... T:.....	Item	
Carried Forward			R
Section No. 1 Bill No. 1 Preliminaries & General			

	Brought Forward			R
	<u>The site (B4)</u>			
42	Clause 4.1 - Handover of site in stages F:..... V:..... T:.....	Item		
43	Clause 4.2 - Enclosure of the works F:..... V:..... T:.....	Item		
44	Clause 4.3 - Geotechnical and other investigations F:..... V:..... T:.....	Item		
45	Clause 4.4 - Encroachments F:..... V:..... T:.....	Item		
46	Clause 4.5 - Existing premises occupied F:..... V:..... T:.....	Item		
47	Clause 4.6 - Services - known F:..... V:..... T:.....	Item		
	<u>Management of contract (B5)</u>			
48	Clause 5.1 - Management of the works F:..... V:..... T:.....	Item		
49	Clause 5.2 - Progress meetings F:..... V:..... T:.....	Item		
50	Clause 5.3 - Technical meetings F:..... V:..... T:.....	Item		
	Carried Forward			R
	Section No. 1 Bill No. 1 Preliminaries & General			

	Brought Forward			R
	<u>Samples, shop drawings and manufacturer's instructions (B6)</u>			
51	Clause 6.1 - Samples of materials F:..... V:..... T:.....	Item		
52	Clause 6.2 - Workmanship samples F:..... V:..... T:.....	Item		
53	Clause 6.3 - Shop drawings F:..... V:..... T:.....	Item		
54	Clause 6.4 - Compliance with manufacturer's instructions F:..... V:..... T:.....	Item		
	<u>Deposits and fees (B7)</u>			
55	Clause 7.1 - Deposits and fees F:..... V:..... T:.....	Item		
	<u>Temporary services (B8)</u>			
56	Clause 8.1 - Water F:..... V:..... T:.....	Item		
57	Clause 8.2 - Electricity F:..... V:..... T:.....	Item		
58	Clause 8.3 - Ablution and welfare facilities F:..... V:..... T:.....	Item		
59	Clause 8.4 - Communication facilities F:..... V:..... T:.....	Item		
	Carried Forward			R
	Section No. 1 Bill No. 1 Preliminaries & General			

	Brought Forward			R
	<u>Prime cost amounts (B9)</u>			
60	<p>Clause 9.1 - Responsibility for prime cost amounts</p> <p>F:..... V:..... T:.....</p>	Item		
	<u>Attendance on subcontractors (B10)</u>			
61	<p>Clause 10.1 - General attendance</p> <p><u>User note</u></p> <p><i>General attendance is defined as being the duties of the contractor in terms of clause 12.2 of the JBCC n/s subcontract agreement</i></p> <p>F:..... V:..... T:.....</p>	Item		
62	<p>Clause 10.2 - Special attendance</p> <p><i>It is important to note that general attendance only requires the contractor to "permit the subcontractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right while it remains erected on the site" (refer to 12.2.13 of the JBCC n/s subcontract agreement). Many n/s subcontractors qualify their tenders to exclude scaffolding and/or hoisting facilities. Especially scaffolding could be an expensive item and it may be necessary in order to avoid claims to require the contractor to provide for the extended use of scaffolding for specific subcontracts within a description of "special attendance" in the applicable bill</i></p> <p>F:..... V:..... T:.....</p>	Item		
	<u>General (B11)</u>			
63	<p>Clause 11.1 - Protection of the works</p> <p>F:..... V:..... T:.....</p>	Item		
64	<p>Clause 11.2 - Protection/isolation of existing works and works occupied in sections</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward			R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries & General</p>			

	Brought Forward			R
65	<p>Clause 11.3 - Security of the works</p> <p>F:..... V:..... T:.....</p>	Item		
66	<p>Clause 11.4 - Notice before covering work</p> <p>F:..... V:..... T:.....</p>	Item		
67	<p>Clause 11.5 - Disturbance</p> <p>Disturbance</p> <p>All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever</p> <p>F:..... V:..... T:.....</p>	Item		
68	<p>Clause 11.6 - Environmental disturbance</p> <p>The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works</p>			
69	<p>Clause 11.7 - Works cleaning and clearing</p> <p>F:..... V:..... T:.....</p>	Item		
70	<p>Clause 11.8 - Vermin</p> <p>F:..... V:..... T:.....</p>	Item		
71	<p>Clause 11.9 - Overhand work</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward			R
	<p>Section No. 1 Bill No. 1 Preliminaries & General</p>			

	Brought Forward			R
72	<p>Clause 11.10 - Tenant installations</p> <p>F:..... V:..... T:.....</p>	Item		
73	<p>Clause 11.11 - Advertising</p> <p>F:..... V:..... T:.....</p> <p><u>SECTION C: SPECIFIC PRELIMINARIES</u></p>	Item		
74	<p>Warranties for materials and workmanship</p> <p>Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract</p> <p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so</p> <p>The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor</p> <p>F:..... V:..... T:.....</p>	Item		
75	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>F:..... V:.....T:.....</p>	Item		
	Carried Forward			R
	<p>Section No. 1 Bill No. 1 Preliminaries & General</p>			

	Brought Forward			R
76	<p>Co-operation of the contractor for cost management</p> <p>It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget</p> <p>F:..... V:.....T:.....</p>	Item		
77	<p>Overloading</p> <p>The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense</p> <p>F:..... V:.....T:.....</p>	Item		
78	<p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specification [2.1]</p>			
	Carried Forward			R
	<p>Section No. 1</p> <p>Bill No. 1</p> <p>Preliminaries & General</p>			

	Brought Forward			R
	<p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification <p>F:..... V:..... T:.....</p>			
79	<p>Broad based black economic empowerment (BBB-EE)</p> <p>Tenders submitted will be evaluated taking into account their empowerment rating</p> <p>The employer will be monitoring the broad based black economic empowerment (BBB-EE) status of the contractor throughout the execution of the works</p> <p>The contractor is to submit to the principal agent on an annual basis a schedule of spend, split into vendors engaged as subcontractors and suppliers indicating their BBB-EE rating including proof of the said rating</p> <p>F:..... V:.....T:.....</p>	Item		
80	<p>Advertising rights</p> <p>The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement</p> <p>F:..... V:.....T:.....</p>	Item		
	Carried Forward			R
	<p>Section No. 1 Bill No. 1 Preliminaries & General</p>			

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Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 1</u>				
	<u>ALTERATIONS</u>				
	<u>PREAMBLES</u>				
	The description given in the various items below are not necessary full and complete and reference must be made to the 'Model Preambles to All Trades 2008' , 'Supplementary Preambles' and 'Supplementary Specifications' to this contract for the full requirement of each schedule item.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>View site</u>				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	<u>Explosives</u>				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated.				
	<u>General</u>				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.				
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.				
	Carried Forward			R	
	Section No. 2 Bill No. 1 Alterations				

					Brought Forward				R
					<p>Doors, fanlights, fittings, frames, linings, etc. which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc., and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately.</p> <p>Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.</p> <p>Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing</p> <p>With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc., shall be levelled and prepared for raising of brickwork</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)</p> <p><u>REMOVAL OF EXISTING ROOF COVERINGS</u></p> <p><u>Temporary roof protection, etc. including removal:</u></p> <p>Contractors will be held responsible for all damages, however caused, to ceilings, finishes, etc. inside rooms where the existing roof coverings have been removed and he must make good all damages at his own expense to the approval of the employer</p>				
1	Cover and maintain existing roofs in a perfectly watertight condition during alterations by means of heavy tarpaulins properly secured and maintained in position to the approval of the Employer and make good all work damaged or disturbed after completion (Provisional)		m2	469					
					Carried Forward				R
	<p>Section No. 2</p> <p>Bill No. 1</p> <p>Alterations</p>								

Brought Forward				R
2	Security and safety warning tapes and signage to enclose the Works where necessary		Item	
	<u>Protection from damage</u>			
3	All floors, doors, windows, fittings, ceilings, roofs, etc not to be removed and become the property of the Contractor shall be adequately protected from damage during the progress of the works and any damage resulting from the repairs, renovations, alterations or demolitions shall be made good by the Contractor at his own expense		Item	
	<u>REMOVAL OF EXISTING WORK</u>			
	<u>Taking out/off and removing glass</u>			
4	Glass from steel windows with beads, including cleaning out rebates and preparing for new glass (new glass measured elsewhere)	m2	15	
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
5	IBR profiled steel sheeted roof covering and timber purlins with and including timber trusses, rafters, etc	m2	469	
6	Gypsum plasterboard ceilings including cornices, timber bandering, etc.	m2	386	
7	Damaged cornices	m	173	
8	Fascia & barge boards	m	136	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 1				
Alterations				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 2</u>				
	<u>ROOF COVERINGS</u>				
	<u>PREAMBLES</u>				
	<p>The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item</p>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>SHEETING</u>				
	<p>Roof pitch to be 15 degrees & 3 degrees. 0,8mm aluminium roof sheeting with pre-painted G4 colortech finish on both sides complete with fixings, ridge flashing and mastic sealant to all side laps supplied by roof manufacture. determine direction of wind before laying sheets. sheets to project a minimum of 50mm beyond purlins at eaves. sheets to be fixed to 76 x 50mm timber purlins at max. of 1250mm centers on prefabricated trusses by engineer at max. of 1250mm centers to be strapped to 114 x 38mm wall plate with 30 x 1.6 x 1600mm long galvanised hoop iron straps built into coursing. Sisalation "RF405" underlay over trusses and under purlins on straining wires. prefabricated cleated roof trusses 114 x 38mm rafters and ties, 114 x 38mm intermediate members as per details hurricane clips be used externally to secure purlins to trusses at eaves overhangs. double wound 2.5mm diameter galvanised wire to secure purlins internally. all exposed roof timber to be painted with 2 coats of ABE provonite, before fixing of roof sheets, fascias and barge boards</p>				
	<u>SAFETY</u>				
	<p>The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.</p>				
	<u>INSTALLATION</u>				
	<p>Every precaution shall be taken to prevent damage to</p>				
	Carried Forward			R	
	Section No. 2 Bill No. 2 Roof Coverings				

Brought Forward

roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted.
- b. Purlins and girths are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girths and the cladding are in the same plane. Should the alignment be

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Section No. 2
Bill No. 2
Roof Coverings

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Brought Forward			R
<p>inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.</p> <p><u>PROTRUSION THROUGH SHEETED SURFACES</u></p> <p>Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.</p> <p><u>GUARANTEE</u></p> <p>The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Tite™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS contractor. A written and five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.</p> <p><u>PROFILED METAL SHEETING AND ACCESSORIES</u></p> <p><u>"Global Kliptite" or other equally approved double interlocking concealed fix, 0.8mm spelter galvanised sheet steel and accessories, fixed to timber purlins</u></p>			
1	Roof covering with pitch not exceeding 25 degrees	m2	469
2	Head wall flashings 308mm girth	m	35
3	Cover flashing 154mm girth	m	35
<u>ROOF AND WALL INSULATION</u>			
Carried Forward			R
Section No. 2 Bill No. 2 Roof Coverings			

Brought Forward			R
<u>Plate nailed timber roof truss construction</u>			
The following is applicable in respect of roof trusses:			
Trusses are at maximum 1,10m centres			
Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.			
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm branderling.			
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.			
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.			
All joints to be close fitted butt joints.			
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.			
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.			
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s CLASS-4 - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.			
<u>Sawn softwood</u>			
1	50 x 75mm Purlins	m	636
2	38 x 114mm Wall plates	m	105
<u>Sundries</u>			
3	Two coats creosote on sawn timbers	m2	157
<u>EAVES, VERGES, ETC</u>			
Carried Forward			R
Section No. 2 Bill No. 3 Carpentry & Joinery			

Brought Forward				R
	<u>Medium density plain fibre-cement flat sheets</u>			
4	6mm Eaves soffit covering including 38 x 38mm sawn softwood branders along edges, along centre and at 400mm centres across sheets	m2	105	
	<u>High density plain fibre-cement fascias and barge boards</u>			
5	325 x 15mm Fascias and barge boards, including galvanised steel H-profile joiners	m	136	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 3				
Carpentry & Joinery				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 4</u>				
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	Openings in ceilings for light fittings etc. are to include for additional suspension as required				
	<u>Ceilings</u>				
	Unless otherwise described ceilings shall be deemed to be horizontal				
	<u>Fixings</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pinned to blockwork or concrete.				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere				
	<u>CEILINGS ETC</u>				
	<u>"Aerolite" insulation</u>				
1	75mm Insulation closely fitted and laid on top of bracing between roof timbers etc	m2	282		
	<u>FLUSH PLASTERED SUSPENDED CEILINGS</u>				
	<u>6.4mm Taper-edge gypsum plasterboard with taped and skimmed flush joints</u>				
2	Ceilings including 38 x 38mm sawn softwood bracing at 400mm centres in one direction	m2	282		
	Carried Forward			R	
	Section No. 2 Bill No. 4 Ceilings and Partitions				

Brought Forward				R
3	Extra over ceiling for 600 x 600mm trap door of 32 x 44mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around	No	4	
	<u>Cornices</u>			
4	75mm Coved cornices mitred at corners with splayed heading joints and bed with Rhinobed gypsum plaster and spiked to branders	m	126	
Carried Forward to Summary of Section No. 2				R
Section No. 2				
Bill No. 4				
Ceilings and Partitions				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 5</u>				
	<u>PLUMBING AND DRAINAGE</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>RAINWATER DISPOSAL</u>				
	<u>"Ogee profile aluminium H3003h 14" or other equally approved seamless gutter in marble white colour with and including matching rivet fixed mitres and end caps internally sealed using "Sika" or other equally approved silicon mastic sealer. Gutters are to be hung with nailed fixed internal aluminium hangers at 600mm centres to fibre cement fascia boards (Fibre cement fascia boards elsewhere measured)</u>				
1	125 x 85 x 0.6mm Ogee profile gutter	m	105		
2	Extra over gutter for stop ends	No	4		
	<u>0.7mm Baked enamel aluminium downpipe including holderbats</u>				
3	100 x 75mm rainwater pipe	m	14		
4	Extra over rainwater pipe for bend	No	8		
5	Extra over gutter for 100 x 75mm outlet	No	4		
6	Extra over rainwater pipe for shoe	No	4		
	Carried Forward to Summary of Section No. 2			R	
	Section No. 2				
	Bill No. 5				
	Plumbing and Drainage				

PREPARATORY WORK TO EXISTING WORK**Previously painted plastered surfaces**

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

Previously painted metal surfaces

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal

Previously painted wood surfaces

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

PAINT SPECIFICATIONS

All painting shall be done in accordance with Dulux or other approved specifications unless otherwise described

ON INTERNAL FLOATED PLASTER SURFACES

Prepare and sand down existing surfaces and apply "Plascon" or other equally approved Primer (PP700) and two coats "Velvagio" water based paint for interior use

1	On Walls	m2	450
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PAINTWORK, ETC. TO NEW SURFACES**ON PLASTERBOARD SURFACES**

"Plascon" or other equally approved gypsum and plaster primer (PP700) and two coats professional super matt (PEM 900/TSA) for interior use

2	Ceilings and cornices, including priming metal	m2	282
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SECTION SUMMARY - Block A - 4 Classroom Block

**Bill
No**

- | | |
|---|-------------------------|
| 1 | Alterations |
| 2 | Roof Coverings |
| 3 | Carpentry & Joinery |
| 4 | Ceilings and Partitions |
| 5 | Plumbing and Drainage |
| 6 | Glazing |
| 7 | Paintwork |
| 8 | Provisional Sums |

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Amount

Carried to Final Summary

Section No. 2

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Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 3</u>				
	<u>BILL NO. 1</u>				
	<u>ALTERATIONS</u>				
	<u>PREAMBLES</u>				
	The description given in the various items below are not necessary full and complete and reference must be made to the 'Model Preambles to All Trades 2008' , 'Supplementary Preambles' and 'Supplementary Specifications' to this contract for the full requirement of each schedule item.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>View site</u>				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	<u>Explosives</u>				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated.				
	<u>General</u>				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.				
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.				
	Carried Forward			R	
	Section No. 3 Bill No. 1 Alterations				

					Brought Forward				R
					<p>Doors, fanlights, fittings, frames, linings, etc. which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc., and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately.</p> <p>Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.</p> <p>Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing</p> <p>With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc., shall be levelled and prepared for raising of brickwork</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)</p> <p><u>REMOVAL OF EXISTING ROOF COVERINGS</u></p> <p><u>Temporary roof protection, etc. including removal:</u></p> <p>Contractors will be held responsible for all damages, however caused, to ceilings, finishes, etc. inside rooms where the existing roof coverings have been removed and he must make good all damages at his own expense to the approval of the employer</p>				
1	Cover and maintain existing roofs in a perfectly watertight condition during alterations by means of heavy tarpaulins properly secured and maintained in position to the approval of the Employer and make good all work damaged or disturbed after completion (Provisional)		m2	469					
					Carried Forward				R
	<p>Section No. 3</p> <p>Bill No. 1</p> <p>Alterations</p>								

Brought Forward				R
2	Security and safety warning tapes and signage to enclose the Works where necessary		Item	
	<u>Protection from damage</u>			
3	All floors, doors, windows, fittings, ceilings, roofs, etc not to be removed and become the property of the Contractor shall be adequately protected from damage during the progress of the works and any damage resulting from the repairs, renovations, alterations or demolitions shall be made good by the Contractor at his own expense		Item	
	<u>REMOVAL OF EXISTING WORK</u>			
	<u>Taking out/off and removing glass</u>			
4	Glass from steel windows with beads, including cleaning out rebates and preparing for new glass (new glass measured elsewhere)	m2	15	
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
5	IBR profiled steel sheeted roof covering and timber purlins with and including timber trusses, rafters, etc	m2	469	
6	Gypsum plasterboard ceilings including cornices, timber bandering, etc.	m2	386	
7	Damaged cornices	m	173	
8	Fascia & barge boards	m	136	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
Bill No. 1				
Alterations				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 2</u>				
	<u>ROOF COVERINGS</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>SHEETING</u>				
	Roof pitch to be 15 degrees & 3 degrees. 0,8mm aluminium roof sheeting with pre-painted G4 colortech finish on both sides complete with fixings, ridge flashing and mastic sealant to all side laps supplied by roof manufacture. determine direction of wind before laying sheets. sheets to project a minimum of 50mm beyond purlins at eaves. sheets to be fixed to 76 x 50mm timber purlins at max. of 1250mm centers on prefabricated trusses by engineer at max. of 1250mm centers to be strapped to 114 x 38mm wall plate with 30 x 1.6 x 1600mm long galvanised hoop iron straps built into coursing. Sisalation "RF405" underlay over trusses and under purlins on straining wires. prefabricated cleated roof trusses 114 x 38mm rafters and ties, 114 x 38mm intermediate members as per details hurricane clips be used externally to secure purlins to trusses at eaves overhangs. double wound 2.5mm diameter galvanised wire to secure purlins internally. all exposed roof timber to be painted with 2 coats of ABE provonite, before fixing of roof sheets, fascias and barge boards				
	<u>SAFETY</u>				
	The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.				
	<u>INSTALLATION</u>				
	Every precaution shall be taken to prevent damage to				
	Carried Forward				
	Section No. 3 Bill No. 2 Roof Coverings			R	

Brought Forward

roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted.
- b. Purlins and girths are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girths and the cladding are in the same plane. Should the alignment be

Carried Forward

Section No. 3
Bill No. 2
Roof Coverings

R

R

Brought Forward

inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Tite™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS contractor. A written and five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

PROFILED METAL SHEETING AND ACCESSORIES

"Global Kliptite" or other equally approved double interlocking concealed fix, 0.8mm spelter galvanised sheet steel and accessories, fixed to timber purlins

1	Roof covering with pitch not exceeding 25 degrees	m2	469
2	Head wall flashings 308mm girth	m	35
3	Cover flashing 154mm girth	m	35

ROOF AND WALL INSULATION**Carried Forward**

Section No. 3
Bill No. 2
Roof Coverings

R

R

R

4	Insulation laid taut over purlins (at approximately 100mm centres) and fixed concurrent with roof covering including galvanised steel straining wires
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m2

469

R

Brought Forward			R
<u>Plate nailed timber roof truss construction</u>			
The following is applicable in respect of roof trusses:			
Trusses are at maximum 1,10m centres			
Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.			
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm branderling.			
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.			
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.			
All joints to be close fitted butt joints.			
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.			
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.			
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s CLASS-4 - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.			
<u>Sawn softwood</u>			
1	50 x 75mm Purlins	m	424
2	38 x 114mm Wall plates	m	105
<u>Sundries</u>			
3	Two coats creosote on sawn timbers	m2	157
<u>EAVES, VERGES, ETC</u>			
Carried Forward			R
Section No. 3 Bill No. 3 Carpentry & Joinery			

Brought Forward				R
	<u>Medium density plain fibre-cement flat sheets</u>			
4	6mm Eaves soffit covering including 38 x 38mm sawn softwood branders along edges, along centre and at 400mm centres across sheets	m2	105	
	<u>High density plain fibre-cement fascias and barge boards</u>			
5	325 x 15mm Fascias and barge boards, including galvanised steel H-profile joiners	m	136	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
Bill No. 3				
Carpentry & Joinery				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 4</u>				
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	Openings in ceilings for light fittings etc. are to include for additional suspension as required				
	<u>Ceilings</u>				
	Unless otherwise described ceilings shall be deemed to be horizontal				
	<u>Fixings</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pinned to blockwork or concrete.				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere				
	<u>CEILINGS ETC</u>				
	<u>"Aerolite" insulation</u>				
1	75mm Insulation closely fitted and laid on top of bracing between roof timbers etc	m2	282		
	<u>FLUSH PLASTERED SUSPENDED CEILINGS</u>				
	<u>6.4mm Taper-edge gypsum plasterboard with taped and skimmed flush joints</u>				
2	Ceilings including 38 x 38mm sawn softwood bracing at 400mm centres in one direction	m2	282		
	Carried Forward			R	
	Section No. 3 Bill No. 4 Ceilings and Partitions				

Brought Forward				R
3	Extra over ceiling for 600 x 600mm trap door of 32 x 44mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around	No	4	
	<u>Cornices</u>			
4	75mm Coved cornices mitred at corners with splayed heading joints and bed with Rhinobed gypsum plaster and spiked to branders	m	126	
Carried Forward to Summary of Section No. 3				R
Section No. 3				
Bill No. 4				
Ceilings and Partitions				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 5</u>				
	<u>PLUMBING AND DRAINAGE</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>RAINWATER DISPOSAL</u>				
	<u>"Ogee profile aluminium H3003h 14" or other equally approved seamless gutter in marble white colour with and including matching rivet fixed mitres and end caps internally sealed using "Sika" or other equally approved silicon mastic sealer. Gutters are to be hung with nailed fixed internal aluminium hangers at 600mm centres to fibre cement fascia boards (Fibre cement fascia boards elsewhere measured)</u>				
1	125 x 85 x 0.6mm Ogee profile gutter	m	105		
2	Extra over gutter for stop ends	No	4		
	<u>0.7mm Baked enamel aluminium downpipe including holderbats</u>				
3	100 x 75mm rainwater pipe	m	14		
4	Extra over rainwater pipe for bend	No	8		
5	Extra over gutter for 100 x 75mm outlet	No	4		
6	Extra over rainwater pipe for shoe	No	4		
	Carried Forward to Summary of Section No. 3			R	
	Section No. 3				
	Bill No. 5				
	Plumbing and Drainage				

SECTION SUMMARY - Block B - 4 Classroom Block

[illegible]

Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 4</u>				
	<u>BILL NO. 1</u>				
	<u>ALTERATIONS</u>				
	<u>PREAMBLES</u>				
	The description given in the various items below are not necessary full and complete and reference must be made to the 'Model Preambles to All Trades 2008' , 'Supplementary Preambles' and 'Supplementary Specifications' to this contract for the full requirement of each schedule item.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>View site</u>				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	<u>Explosives</u>				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated.				
	<u>General</u>				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.				
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.				
	Carried Forward			R	
	Section No. 4 Bill No. 1 Alterations				

					Brought Forward				R
					<p>Doors, fanlights, fittings, frames, linings, etc. which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc., and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately.</p> <p>Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.</p> <p>Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing</p> <p>With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc., shall be levelled and prepared for raising of brickwork</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)</p> <p><u>REMOVAL OF EXISTING ROOF COVERINGS</u></p> <p><u>Temporary roof protection, etc. including removal:</u></p> <p>Contractors will be held responsible for all damages, however caused, to ceilings, finishes, etc. inside rooms where the existing roof coverings have been removed and he must make good all damages at his own expense to the approval of the employer</p>				
1					<p>Cover and maintain existing roofs in a perfectly watertight condition during alterations by means of heavy tarpaulins properly secured and maintained in position to the approval of the Employer and make good all work damaged or disturbed after completion (Provisional)</p>	m2	469		
					Carried Forward				R
					<p>Section No. 4 Bill No. 1 Alterations</p>				

	Brought Forward	R
2 Security and safety warning tapes and signage to enclose the Works where necessary Protection from damage	Item	
3 All floors, doors, windows, fittings, ceilings, roofs, etc not to be removed and become the property of the Contractor shall be adequately protected from damage during the progress of the works and any damage resulting from the repairs, renovations, alterations or demolitions shall be made good by the Contractor at his own expense REMOVAL OF EXISTING WORK Taking out/off and removing glass	Item	
4 Glass from steel windows with beads, including cleaning out rebates and preparing for new glass (new glass measured elsewhere) Taking down and removing roofs, floors, panelling, ceilings, partitions, etc	m2	15
5 IBR profiled steel sheeted roof covering and timber purlins with and including timber trusses, rafters, etc	m2	469
6 Gypsum plasterboard ceilings including cornices, timber bandering, etc.	m2	386
7 Damaged cornices	m	173
8 Fascia & barge boards	m	136
PREPARATORY WORK TO EXISTING SURFACES Mechanically scrubbling of existing concrete surfaces		
9 Scabble existing concrete surface bed and prepare to receive new screed (new screed elsewhere measured)	m2	141
REPAIR WORK TO EXISTING		
Carried Forward		R
Section No. 4 Bill No. 1 Alterations		

R

10

R

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Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 2</u>				
	<u>ROOF COVERINGS</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>SHEETING</u>				
	Roof pitch to be 15 degrees & 3 degrees. 0,8mm aluminium roof sheeting with pre-painted G4 colortech finish on both sides complete with fixings, ridge flashing and mastic sealant to all side laps supplied by roof manufacture. determine direction of wind before laying sheets. sheets to project a minimum of 50mm beyond purlins at eaves. sheets to be fixed to 76 x 50mm timber purlins at max. of 1250mm centers on prefabricated trusses by engineer at max. of 1250mm centers to be strapped to 114 x 38mm wall plate with 30 x 1.6 x 1600mm long galvanised hoop iron straps built into coursing. Sisalation "RF405" underlay over trusses and under purlins on straining wires. prefabricated cleated roof trusses 114 x 38mm rafters and ties, 114 x 38mm intermediate members as per details hurricane clips be used externally to secure purlins to trusses at eaves overhangs. double wound 2.5mm diameter galvanised wire to secure purlins internally. all exposed roof timber to be painted with 2 coats of ABE provonite, before fixing of roof sheets, fascias and barge boards				
	<u>SAFETY</u>				
	The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.				
	<u>INSTALLATION</u>				
	Every precaution shall be taken to prevent damage to				
	Carried Forward			R	
	Section No. 4 Bill No. 2 Roof Coverings				

Brought Forward

roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted.
- b. Purlins and girths are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girths and the cladding are in the same plane. Should the alignment be

Carried Forward

Section No. 4
Bill No. 2
Roof Coverings

R

R

Brought Forward			R
<p>inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.</p> <p><u>PROTRUSION THROUGH SHEETED SURFACES</u></p> <p>Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.</p> <p><u>GUARANTEE</u></p> <p>The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Tite™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS contractor. A written and five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.</p> <p><u>PROFILED METAL SHEETING AND ACCESSORIES</u></p> <p><u>"Global Kliptite" or other equally approved double interlocking concealed fix, 0.8mm spelter galvanised sheet steel and accessories, fixed to timber purlins</u></p>			
1	Roof covering with pitch not exceeding 25 degrees	m2	469
2	Head wall flashings 308mm girth	m	35
3	Cover flashing 154mm girth	m	35
<u>ROOF AND WALL INSULATION</u>			
Carried Forward			R
Section No. 4 Bill No. 2 Roof Coverings			

R

4	Insulation laid taut over purlins (at approximately 100mm centres) and fixed concurrent with roof covering including galvanised steel straining wires
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m2

469

R

Brought Forward			R
<u>Plate nailed timber roof truss construction</u>			
The following is applicable in respect of roof trusses:			
Trusses are at maximum 1,10m centres			
Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.			
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm branderling.			
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.			
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.			
All joints to be close fitted butt joints.			
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.			
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.			
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s CLASS-4 - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.			
<u>Sawn softwood</u>			
1	50 x 75mm Purlins	m	636
2	38 x 114mm Wall plates	m	105
<u>Sundries</u>			
3	Two coats creosote on sawn timbers	m2	157
<u>EAVES, VERGES, ETC</u>			
Carried Forward			R
Section No. 4 Bill No. 3 Carpentry & Joinery			

Brought Forward				R
	<u>Medium density plain fibre-cement flat sheets</u>			
4	6mm Eaves soffit covering including 38 x 38mm sawn softwood branders along edges, along centre and at 400mm centres across sheets	m2	105	
	<u>High density plain fibre-cement fascias and barge boards</u>			
5	325 x 15mm Fascias and barge boards, including galvanised steel H-profile joiners	m	136	
Carried Forward to Summary of Section No. 4				R
Section No. 4				
Bill No. 3				
Carpentry & Joinery				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 4</u>				
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	Openings in ceilings for light fittings etc. are to include for additional suspension as required				
	<u>Ceilings</u>				
	Unless otherwise described ceilings shall be deemed to be horizontal				
	<u>Fixings</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pinned to blockwork or concrete.				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere				
	<u>CEILINGS ETC</u>				
	<u>"Aerolite" insulation</u>				
1	75mm Insulation closely fitted and laid on top of bracing between roof timbers etc	m2	282		
	<u>FLUSH PLASTERED SUSPENDED CEILINGS</u>				
	<u>6.4mm Taper-edge gypsum plasterboard with taped and skimmed flush joints</u>				
2	Ceilings including 38 x 38mm sawn softwood bracing at 400mm centres in one direction	m2	282		
	Carried Forward			R	
	Section No. 4 Bill No. 4 Ceilings and Partitions				

Brought Forward				R
3	Extra over ceiling for 600 x 600mm trap door of 32 x 44mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around	No	4	
	<u>Cornices</u>			
4	75mm Coved cornices mitred at corners with splayed heading joints and bed with Rhinobed gypsum plaster and spiked to branders	m	126	
Carried Forward to Summary of Section No. 4				R
Section No. 4				
Bill No. 4				
Ceilings and Partitions				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 5</u> <u>PLASTERING</u> <u>PREAMBLES</u> The descriptions given in the various items below are not necessary full and complete and reference must be made to the "Standard Preambles to All Trades" , "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirement of each schedule item. <u>SUPPLEMENTARY PREAMBLES</u> <u>Method</u> The method to be used shall be either the monolithic method or the bonded method <u>Laying</u> Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and latence shall then be removed and the surface steel trowelled or power floated <u>GRANOLITHIC</u> <u>Untinted granolithic, on concrete</u>				
1	Average 22mm thick on floors in patches	m2	141		
	Carried Forward to Summary of Section No. 4 Section No. 4 Bill No. 5 Plastering			R	

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 6</u>				
	<u>PLUMBING AND DRAINAGE</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>RAINWATER DISPOSAL</u>				
	<u>"Ogee profile aluminium H3003h 14" or other equally approved seamless gutter in marble white colour with and including matching rivet fixed mitres and end caps internally sealed using "Sika" or other equally approved silicon mastic sealer. Gutters are to be hung with nailed fixed internal aluminium hangers at 600mm centres to fibre cement fascia boards (Fibre cement fascia boards elsewhere measured)</u>				
1	125 x 85 x 0.6mm Ogee profile gutter	m	105		
2	Extra over gutter for stop ends	No	4		
	<u>0.7mm Baked enamel aluminium downpipe including holderbats</u>				
3	100 x 75mm rainwater pipe	m	14		
4	Extra over rainwater pipe for bend	No	8		
5	Extra over gutter for 100 x 75mm outlet	No	4		
6	Extra over rainwater pipe for shoe	No	4		
	Carried Forward to Summary of Section No. 4				
	Section No. 4				
	Bill No. 6				
	Plumbing and Drainage				
				R	

PREPARATORY WORK TO EXISTING WORK**Previously painted plastered surfaces**

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

Previously painted metal surfaces

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal

Previously painted wood surfaces

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

PAINT SPECIFICATIONS

All painting shall be done in accordance with Dulux or other approved specifications unless otherwise described

ON INTERNAL FLOATED PLASTER SURFACES

Prepare and sand down existing surfaces and apply "Plascon" or other equally approved Primer (PP700) and two coats "Velvagio" water based paint for interior use

1	On Walls	m2	450
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PAINTWORK, ETC. TO NEW SURFACES**ON PLASTERBOARD SURFACES**

"Plascon" or other equally approved gypsum and plaster primer (PP700) and two coats professional super matt (PEM 900/TSA) for interior use

2	Ceilings and cornices, including priming metal	m2	282
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SECTION SUMMARY - Block C - 4 Classroom

Bill No		Page No		Amount
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8	Paintwork	84		
9	Provisional Sums	85		
			R	
Section No. 4				
Carried to Final Summary				

Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 5</u>				
	<u>BILL NO. 1</u>				
	<u>ALTERATIONS</u>				
	<u>PREAMBLES</u>				
	The description given in the various items below are not necessary full and complete and reference must be made to the 'Model Preambles to All Trades 2008' , 'Supplementary Preambles' and 'Supplementary Specifications' to this contract for the full requirement of each schedule item.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>View site</u>				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	<u>Explosives</u>				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated.				
	<u>General</u>				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.				
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.				
	Carried Forward			R	
	Section No. 5 Bill No. 1 Alterations				

					Brought Forward				R
					Doors, fanlights, fittings, frames, linings, etc. which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc., and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately.				
					Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.				
					Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing				
					With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc., shall be levelled and prepared for raising of brickwork				
					Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary				
					The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)				
					<u>REMOVAL OF EXISTING ROOF COVERINGS</u>				
					<u>Temporary roof protection, etc. including removal:</u>				
					Contractors will be held responsible for all damages, however caused, to ceilings, finishes, etc. inside rooms where the existing roof coverings have been removed and he must make good all damages at his own expense to the approval of the employer				
1					Cover and maintain existing roofs in a perfectly watertight condition during alterations by means of heavy tarpaulins properly secured and maintained in position to the approval of the Employer and make good all work damaged or disturbed after completion (Provisional)	m2	469		
					Carried Forward				R
					Section No. 5 Bill No. 1 Alterations				

Brought Forward				R
2	Security and safety warning tapes and signage to enclose the Works where necessary		Item	
	<u>Protection from damage</u>			
3	All floors, doors, windows, fittings, ceilings, roofs, etc not to be removed and become the property of the Contractor shall be adequately protected from damage during the progress of the works and any damage resulting from the repairs, renovations, alterations or demolitions shall be made good by the Contractor at his own expense		Item	
	<u>REMOVAL OF EXISTING WORK</u>			
	<u>Taking out/off and removing glass</u>			
4	Glass from steel windows with beads, including cleaning out rebates and preparing for new glass (new glass measured elsewhere)	m2	15	
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
5	IBR profiled steel sheeted roof covering and timber purlins with and including timber trusses, rafters, etc	m2	469	
6	Gypsum plasterboard ceilings including cornices, timber bandering, etc.	m2	386	
7	Damaged cornices	m	173	
8	Fascia & barge boards	m	136	
	<u>Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)</u>			
9	Timber single door and steel frame not exceeding 2,5m²	No	4	
Carried Forward to Summary of Section No. 5				R
Section No. 5				
Bill No. 1				
Alterations				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 2</u>				
	<u>ROOF COVERINGS</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>SHEETING</u>				
	Roof pitch to be 15 degrees & 3 degrees. 0,8mm aluminium roof sheeting with pre-painted G4 colortech finish on both sides complete with fixings, ridge flashing and mastic sealant to all side laps supplied by roof manufacture. determine direction of wind before laying sheets. sheets to project a minimum of 50mm beyond purlins at eaves. sheets to be fixed to 76 x 50mm timber purlins at max. of 1250mm centers on prefabricated trusses by engineer at max. of 1250mm centers to be strapped to 114 x 38mm wall plate with 30 x 1.6 x 1600mm long galvanised hoop iron straps built into coursing. Sisalation "RF405" underlay over trusses and under purlins on straining wires. prefabricated cleated roof trusses 114 x 38mm rafters and ties, 114 x 38mm intermediate members as per details hurricane clips be used externally to secure purlins to trusses at eaves overhangs. double wound 2.5mm diameter galvanised wire to secure purlins internally. all exposed roof timber to be painted with 2 coats of ABE provonite, before fixing of roof sheets, fascias and barge boards				
	<u>SAFETY</u>				
	The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.				
	<u>INSTALLATION</u>				
	Every precaution shall be taken to prevent damage to				
	Carried Forward				
	Section No. 5 Bill No. 2 Roof Coverings			R	

Brought Forward

roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted.
- b. Purlins and girths are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girths and the cladding are in the same plane. Should the alignment be

Carried Forward

Section No. 5
Bill No. 2
Roof Coverings

R

R

Brought Forward			R
<p>inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.</p>			
<u>PROTRUSION THROUGH SHEETED SURFACES</u>			
<p>Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.</p>			
<u>GUARANTEE</u>			
<p>The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Tite™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS contractor. A written and five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.</p>			
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
<u>"Global Kliptite" or other equally approved double interlocking concealed fix, 0.8mm spelter galvanised sheet steel and accessories, fixed to timber purlins</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	469
2	Head wall flashings 308mm girth	m	35
3	Cover flashing 154mm girth	m	35
<u>ROOF AND WALL INSULATION</u>			
Carried Forward			R
<p>Section No. 5 Bill No. 2 Roof Coverings</p>			

R|

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R

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Brought Forward			R
<u>Plate nailed timber roof truss construction</u>			
The following is applicable in respect of roof trusses:			
Trusses are at maximum 1,10m centres			
Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.			
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm branderling.			
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.			
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.			
All joints to be close fitted butt joints.			
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.			
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.			
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s CLASS-4 - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.			
<u>Sawn softwood</u>			
1	50 x 75mm Purlins	m	636
2	38 x 114mm Wall plates	m	105
<u>Sundries</u>			
3	Two coats creosote on sawn timbers	m2	157
<u>EAVES, VERGES, ETC</u>			
Carried Forward			R
Section No. 5 Bill No. 3 Carpentry & Joinery			

Brought Forward				R
	<u>Medium density plain fibre-cement flat sheets</u>			
4	6mm Eaves soffit covering including 38 x 38mm sawn softwood branders along edges, along centre and at 400mm centres across sheets	m2	105	
	<u>High density plain fibre-cement fascias and barge boards</u>			
5	325 x 15mm Fascias and barge boards, including galvanised steel H-profile joiners	m	136	
Carried Forward to Summary of Section No. 5				R
Section No. 5				
Bill No. 3				
Carpentry & Joinery				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 4</u>				
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	Openings in ceilings for light fittings etc. are to include for additional suspension as required				
	<u>Ceilings</u>				
	Unless otherwise described ceilings shall be deemed to be horizontal				
	<u>Fixings</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pinned to blockwork or concrete.				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere				
	<u>CEILINGS ETC</u>				
	<u>"Aerolite" insulation</u>				
1	75mm Insulation closely fitted and laid on top of bracing between roof timbers etc	m2	282		
	<u>FLUSH PLASTERED SUSPENDED CEILINGS</u>				
	<u>6.4mm Taper-edge gypsum plasterboard with taped and skimmed flush joints</u>				
2	Ceilings including 38 x 38mm sawn softwood bracing at 400mm centres in one direction	m2	282		
	Carried Forward			R	
	Section No. 5 Bill No. 4 Ceilings and Partitions				

Brought Forward				R
3	Extra over ceiling for 600 x 600mm trap door of 32 x 44mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around	No	4	
	<u>Cornices</u>			
4	75mm Coved cornices mitred at corners with splayed heading joints and bed with Rhinobed gypsum plaster and spiked to branders	m	126	
Carried Forward to Summary of Section No. 5				R
Section No. 5				
Bill No. 4				
Ceilings and Partitions				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 5</u>				
	<u>IRONMONGERY</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Finishes to ironmongery</u>				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:				
	BS Satin bronze lacquered				
	CH Chromium plated				
	SC Satin chromium plated				
	SE Silver enamelled				
	GE Grey enamelled				
	AS Anodised silver				
	AB Anodised bronze				
	AG Anodised gold				
	ABL Anodised black				
	PB Polished brass				
	PL Polished and lacquered				
	PT Epoxy coated				
	SD Sanded				
	NP Nickle plated				
	<u>LOCKS</u>				
	<u>"Mazac Tarpon"</u>				
1	"952/4L" four lever lockset and handles with chrome plated finish	No	4		
	<u>PUSH PLATES AND KICKING PLATES</u>				
	<u>"Dorma"</u>				
2	"dkp-ss-161" Stainless steel kickplate plate size 813 x 300mm high fixed to timber	No	8		
	<u>LETTERS, NAMEPLATES, ETC</u>				
3	60 x 3mm Thick perspex plate with two 40mm high engraved and painted numerals	No	4		
	<u>SUNDRIES</u>				
	<u>"Union"</u>				
4	"AL8730AS" door stop plugged	No	4		
	Carried Forward to Summary of Section No. 5			R	
	Section No. 5				
	Bill No. 5				
	Ironmongery				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 7</u>				
	<u>PLUMBING AND DRAINAGE</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>RAINWATER DISPOSAL</u>				
	<u>"Ogee profile aluminium H3003h 14" or other equally approved seamless gutter in marble white colour with and including matching rivet fixed mitres and end caps internally sealed using "Sika" or other equally approved silicon mastic sealer. Gutters are to be hung with nailed fixed internal aluminium hangers at 600mm centres to fibre cement fascia boards (Fibre cement fascia boards elsewhere measured)</u>				
1	125 x 85 x 0.6mm Ogee profile gutter	m	105		
2	Extra over gutter for stop ends	No	4		
	<u>0.7mm Baked enamel aluminium downpipe including holderbats</u>				
3	100 x 75mm rainwater pipe	m	14		
4	Extra over rainwater pipe for bend	No	8		
5	Extra over gutter for 100 x 75mm outlet	No	4		
6	Extra over rainwater pipe for shoe	No	4		
	Carried Forward to Summary of Section No. 5			R	
	Section No. 5				
	Bill No. 7				
	Plumbing and Drainage				

PREPARATORY WORK TO EXISTING WORK**Previously painted plastered surfaces**

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

Previously painted metal surfaces

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal

Previously painted wood surfaces

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

PAINT SPECIFICATIONS

All painting shall be done in accordance with Dulux or other approved specifications unless otherwise described

ON INTERNAL FLOATED PLASTER SURFACES

Prepare and sand down existing surfaces and apply "Plascon" or other equally approved Primer (PP700) and two coats "Velvagio" water based paint for interior use

1	On Walls	m2	450
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PAINTWORK, ETC. TO NEW SURFACES**ON PLASTERBOARD SURFACES**

"Plascon" or other equally approved gypsum and plaster primer (PP700) and two coats professional super matt (PEM 900/TSA) for interior use

2	Ceilings and cornices, including priming metal	m2	282
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	Brought Forward			R
3	Eaves closure	m2	105	
	<u>ON FIBRE-CEMENT BOARD SURFACES</u>			
	<u>"Plascon" or other approved alkali resistant primer and two coats "Nu-Roof" emulsion paint for exterior use</u>			
4	Fascias and barge boards	m2	63	
	<u>ON METAL</u>			
	<u>Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coat high gloss enamel paint on steel</u>			
5	On door frames	m2	10	
	<u>ON WOOD</u>			
	<u>Three coats polyurethane semi-gloss varnish</u>			
6	On doors	m2	15	
Carried Forward to Summary of Section No. 5				R
Section No. 5				
Bill No. 9				
Paintwork				

SECTION SUMMARY - Block D - 4 Classroom

[illegible]

Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 6</u>				
	<u>BILL NO. 1</u>				
	<u>ALTERATIONS</u>				
	<u>PREAMBLES</u>				
	The description given in the various items below are not necessary full and complete and reference must be made to the 'Model Preambles to All Trades 2008' , 'Supplementary Preambles' and 'Supplementary Specifications' to this contract for the full requirement of each schedule item.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>View site</u>				
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	<u>Explosives</u>				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated.				
	<u>General</u>				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.				
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.				
	Carried Forward			R	
	Section No. 6 Bill No. 1 Alterations				

	Brought Forward			R
	<p>Doors, fanlights, fittings, frames, linings, etc. which are to be re-used shall be thoroughly overhauled before re-fixing including taking off, easing and rehangng, cramping up, re-wedging as required and making good cramps, dowels, etc., and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately.</p> <p>Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.</p> <p>Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing</p> <p>With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc., shall be levelled and prepared for raising of brickwork</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)</p> <p><u>REMOVAL OF EXISTING ROOF COVERINGS</u></p> <p><u>Temporary roof protection, etc. including removal:</u></p> <p>Contractors will be held responsible for all damages, however caused, to ceilings, finishes, etc. inside rooms where the existing roof coverings have been removed and he must make good all damages at his own expense to the approval of the employer</p>			
1	Cover and maintain existing roofs in a perfectly watertight condition during alterations by means of heavy tarpaulins properly secured and maintained in position to the approval of the Employer and make good all work damaged or disturbed after completion (Provisional)	m2	16	
	Carried Forward			R
	<p>Section No. 6</p> <p>Bill No. 1</p> <p>Alterations</p>			

Brought Forward				R
2	Security and safety warning tapes and signage to enclose the Works where necessary		Item	
	<u>Protection from damage</u>			
3	All floors, doors, windows, fittings, ceilings, roofs, etc not to be removed and become the property of the Contractor shall be adequately protected from damage during the progress of the works and any damage resulting from the repairs, renovations, alterations or demolitions shall be made good by the Contractor at his own expense		Item	
	<u>REMOVAL OF EXISTING WORK</u>			
	<u>Taking out/off and removing glass</u>			
4	Glass from steel windows with beads, including cleaning out rebates and preparing for new glass (new glass measured elsewhere)	m2	1	
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc</u>			
5	IBR profiled steel sheeted roof covering and timber purlins with and including timber trusses, rafters, etc	m2	16	
6	Gypsum plasterboard ceilings including cornices, timber bandering, etc.	m2	16	
7	Damaged cornices	m	16	
	<u>Taking out and removing doors, windows, etc, including thresholds, sills, etc (building up openings and making good finishes elsewhere)</u>			
8	Timber single door and steel frame not exceeding 2,5m²	No	1	
Carried Forward to Summary of Section No. 6				R
Section No. 6				
Bill No. 1				
Alterations				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 2</u>				
	<u>ROOF COVERINGS</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>SHEETING</u>				
	Roof pitch to be 15 degrees & 3 degrees. 0,8mm aluminium roof sheeting with pre-painted G4 colortech finish on both sides complete with fixings, ridge flashing and mastic sealant to all side laps supplied by roof manufacture. determine direction of wind before laying sheets. sheets to project a minimum of 50mm beyond purlins at eaves. sheets to be fixed to 76 x 50mm timber purlins at max. of 1250mm centers on prefabricated trusses by engineer at max. of 1250mm centers to be strapped to 114 x 38mm wall plate with 30 x 1.6 x 1600mm long galvanised hoop iron straps built into coursing. Sisalation "RF405" underlay over trusses and under purlins on straining wires. prefabricated cleated roof trusses 114 x 38mm rafters and ties, 114 x 38mm intermediate members as per details hurricane clips be used externally to secure purlins to trusses at eaves overhangs. double wound 2.5mm diameter galvanised wire to secure purlins internally. all exposed roof timber to be painted with 2 coats of ABE provonite, before fixing of roof sheets, fascias and barge boards				
	<u>SAFETY</u>				
	The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.				
	<u>INSTALLATION</u>				
	Every precaution shall be taken to prevent damage to				
	Carried Forward			R	
	Section No. 6 Bill No. 2 Roof Coverings				

Brought Forward

roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces in order to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, levelled and grouted.
- b. Purlins and girths are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girths and the cladding are in the same plane. Should the alignment be

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Section No. 6
Bill No. 2
Roof Coverings

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	<p style="text-align: right;">Brought Forward</p> <p>inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.</p> <p><u>PROTRUSION THROUGH SHEETED SURFACES</u></p> <p>Protrusions such as pipes, ducts and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs have to be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.</p> <p><u>GUARANTEE</u></p> <p>The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Tite™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS contractor. A written and five year guarantee of water-tightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.</p> <p><u>PROFILED METAL SHEETING AND ACCESSORIES</u></p> <p><u>"Global Kliptite" or other equally approved double interlocking concealed fix, 0.8mm spelter galvanised sheet steel and accessories, fixed to timber purlins</u></p>			R
1	<p>Roof covering with pitch not exceeding 25 degrees</p> <p><u>ROOF AND WALL INSULATION</u></p> <p><u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u></p>	m2	16	
2	<p>Insulation laid taut over purlins (at approximately 1 100mm centres) and fixed concurrent with roof covering including galvanised steel straining wires</p>	m2	16	
<p style="text-align: right;">Carried Forward to Summary of Section No. 6</p> <p>Section No. 6 Bill No. 2 Roof Coverings</p>				
				R

Brought Forward			R
<u>Plate nailed timber roof truss construction</u>			
The following is applicable in respect of roof trusses:			
Trusses are at maximum 1,10m centres			
Roof covering is galvanised "IBR" roof sheeting with "Globalcoat" finish on one side on 50 x 75mm purlins at 1,1m maximum centres.			
Ceilings are generally 6,4mm gypsum plasterboard on 38 x 38mm branderling.			
All timber to be sawn softwood in accordance with V4 or M4 as defined in SABS 563 or SABS 1245.			
Metal connector plates shall have a minimum yield strength of 228 MPa and a minimum ultimate tensile strength of 330 Mpa with hot-dip galvanised finish.			
All joints to be close fitted butt joints.			
Trusses shall be designed by a registered supplier of prefabricated trusses who shall issue an Engineers Certificate upon completion of the installation.			
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained on site before design or fabrication commences.			
Tenderers must study the roof plan and sections as attached to the back of these bills of quantities (refer drawing No.'s CLASS-4 - 001 to 002) and must obtain prices from a qualified and registered roof truss supplier as no claims in this regard will be entertained.			
<u>Sawn softwood</u>			
1	50 x 75mm Purlins	m	30
<u>Sundries</u>			
2	Two coats creosote on sawn timbers	m2	19
<u>EAVES, VERGES, ETC</u>			
Carried Forward			R
Section No. 6 Bill No. 3 Carpentry & Joinery			

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 4</u>				
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Model Preambles To All Trades 2008", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	Openings in ceilings for light fittings etc. are to include for additional suspension as required				
	<u>Ceilings</u>				
	Unless otherwise described ceilings shall be deemed to be horizontal				
	<u>Fixings</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pinned to blockwork or concrete.				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere				
	<u>CEILINGS ETC</u>				
	<u>"Aerolite" insulation</u>				
1	75mm Insulation closely fitted and laid on top of bracing between roof timbers etc	m2	16		
	<u>FLUSH PLASTERED SUSPENDED CEILINGS</u>				
	<u>6.4mm Taper-edge gypsum plasterboard with taped and skimmed flush joints</u>				
2	Ceilings including 38 x 38mm sawn softwood bracing at 400mm centres in one direction	m2	16		
	Carried Forward			R	
	Section No. 6 Bill No. 4 Ceilings and Partitions				

Brought Forward				R
3	Extra over ceiling for 600 x 600mm trap door of 32 x 44mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around	No	1	
	<u>Cornices</u>			
4	75mm Coved cornices mitred at corners with splayed heading joints and bed with Rhinobed gypsum plaster and spiked to branders	m	16	
Carried Forward to Summary of Section No. 6				R
Section No. 6				
Bill No. 4				
Ceilings and Partitions				

Item No		Unit	Quantity	Rate	Amount
	<u>BILL NO. 5</u>				
	<u>IRONMONGERY</u>				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Finishes to ironmongery</u>				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:				
	BS Satin bronze lacquered				
	CH Chromium plated				
	SC Satin chromium plated				
	SE Silver enamelled				
	GE Grey enamelled				
	AS Anodised silver				
	AB Anodised bronze				
	AG Anodised gold				
	ABL Anodised black				
	PB Polished brass				
	PL Polished and lacquered				
	PT Epoxy coated				
	SD Sanded				
	NP Nickle plated				
	<u>LOCKS</u>				
	<u>"Mazac Tarpon"</u>				
1	"952/4L" four lever lockset and handles with chrome plated finish	No	1		
	<u>PUSH PLATES AND KICKING PLATES</u>				
	<u>"Dorma"</u>				
2	"dkp-ss-161" Stainless steel kickplate plate size 813 x 300mm high fixed to timber	No	2		
	<u>LETTERS, NAMEPLATES, ETC</u>				
3	60 x 3mm Thick perspex plate with two 40mm high engraved and painted numerals	No	1		
	<u>SUNDRIES</u>				
	<u>"Union"</u>				
4	"AL8730AS" door stop plugged	No	1		
	Carried Forward to Summary of Section No. 6			R	
	Section No. 6				
	Bill No. 5				
	Ironmongery				

PREPARATORY WORK TO EXISTING WORK**Previously painted plastered surfaces**

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

Previously painted metal surfaces

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal

Previously painted wood surfaces

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

PAINT SPECIFICATIONS

All painting shall be done in accordance with Dulux or other approved specifications unless otherwise described

ON INTERNAL FLOATED PLASTER SURFACES

Prepare and sand down existing surfaces and apply "Plascon" or other equally approved Primer (PP700) and two coats "Velvagio" water based paint for interior use

1	On Walls	m2	43
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PAINTWORK, ETC. TO NEW SURFACES**ON PLASTERBOARD SURFACES**

"Plascon" or other equally approved gypsum and plaster primer (PP700) and two coats professional super matt (PEM 900/TSA) for interior use

2	Ceilings and cornices, including priming metal	m2	16
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Brought Forward

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ON FIBRE-CEMENT BOARD SURFACES

**"Plascon" or other approved alkali resistant primer
and two coats "Nu-Roof" emulsion paint for exterior
use**

3 Fascias and barge boards

m2

19

ON METAL

**Spot priming defects in pre primed surfaces with
zinc chromate primer and applying one undercoat
and two coat high gloss enamel paint on steel**

4 On door frames

m2

3

ON WOOD

Three coats polyurethane semi-gloss varnish

5 On doors

m2

4

Carried Forward to Summary of Section No. 6

Section No. 6
Bill No. 8
Paintwork

R

SECTION SUMMARY - Block G - Guard House

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Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 7</u>				
	<u>BILL NO. 1</u>				
	<u>DEMOLITIONS</u>				
	<u>General guide (Demolishing of pit latrines)</u>				
	<p>The following is a general guide recommended for demolition of both the Active or Inactive plain pit latrines at schools where adequate and acceptable forms of sanitation facilities have been provided but the old plain pit toilets were not demolished soon after the new infrastructure provisioning.</p> <p>a) In order to fully meet the Occupational Health and Safety Act (No. 85 of 1993) as well as the National Environmental Management Act (No. 107 of 1998) it is recommended that pit toilets structures should not in any instances be demolished by hand.</p> <p>b) Occupational Health and Safety Act requirements shall be adhered to in terms of safety for the learners, teachers and the public during the demolition process.</p> <ul style="list-style-type: none"> • Thus all necessary cordoning-off of the works area should be adhered to at all times. • As far as practically possible, no open excavations will be left overnight. In the even that it happens, proper and adequate barricading and warning signage shall be put in place. • The entire area shall be demarcated during the demolition with one person directly and exclusively monitoring that there are no learners near or in the demarcated area. <p>c) The demolition and rehabilitation process including the finished rehabilitated site should comply with the National Environmental Management Act requirements.</p>				
	Carried Forward			R	
	Section No. 7 Bill No. 1 Demolition of existing toilet				

<p style="text-align: center;">Brought Forward</p> <p>d) The demolishing of a structure shall entail the complete breakdown of the above ground structure and the removal of any metal roof cover and the latter and any metal may not be buried.</p> <p>e) The below ground pit structure shall be broken down and compacted to such an extent that there are no voids larger than 300x300x300mm.</p> <p>f) The entire demolished structure shall be buried under a layer of clean, uncontaminated virgin soil of at least 500mm depth.</p> <p>g) Absolutely no material shall be left on site or exposed after completion.</p> <p>h) The Contractor shall take pictures at the following milestones:</p> <ol style="list-style-type: none"> i. Upon arrival at the school of the School name and the main gate. ii. Near and far picture of the structure to be demolished before commencement with signboard showing School name, EMIS number, location and date of work. iii. After demolishing of above ground structure. iv. After demolishing of below ground structure showing clearly demolished material of internal structure and proof that any covering and/or internal masonry work has been properly demolished and compacted and a yardstick showing that all off the debris is at a depth of 500mm or more. v. After covering of demolished structure showing clearly clean virgin soil and demarcation of area with sign board in place and absolutely no material left on site. <p style="text-align: center;">Carried Forward</p>	<p style="text-align: center;">R</p>
<p>Section No. 7 Bill No. 1 Demolition of existing toilet</p>	<p style="text-align: center;">R</p>

Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 8</u>				
	<u>BILL NO. 1</u>				
	<u>ENVIROLOO TOILETS (ALL TRADES BILL)</u>				
	PREAMBLESFor preambles refer to Specification of Materials and Method to be used				
	<u>SITE CLEARANCE ETC</u>				
	<u>Site clearance</u>				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	67		
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m2	67		
	<u>EXCAVATIONS, FILLING, ETC, OTHER THAN BULK</u>				
	<u>Excavation in earth not exceeding 2m deep</u>				
3	Pit	m3	66		
4	Trenches in pit	m3	6		
	<u>Excavation in earth not exceeding 2m deep</u>				
5	Trenches	m3	8		
	<u>Extra over trench and hole excavations in earth for excavation in</u>				
6	Soft rock	m3	4		
7	Hard rock	m3	2		
	<u>Extra over all excavations for carting away</u>				
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	74		
	<u>Risk of collapse of excavations</u>				
9	Sides of trench and hole excavations not exceeding 1,5m deep	m2	43		
	Carried Forward			R	
	Section No. 8 Bill No. 1 2 Envirolloo Toilets & 4 Urinary				

Brought Forward			R
10	Sides of trench and pit excavations exceeding 1,5m deep	m2	47
<u>Earth filling obtained from the excavations on site and compacted to 93% Mod AASHTO density</u>			
11	Backfilling to trenches, holes, etc	m3	12
12	Under floors, steps, paving etc,.	m3	5
<u>Compaction of surfaces</u>			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m2	42
<u>Approved soil insecticide</u>			
14	Under floors etc including forming and poisoning V-shaped channels against foundation walls etc, filling in channels and ramming	m2	42
15	To bottom and sides of trenches, holes etc	m2	65
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>Test Blocks</u>			
16	Making of 150 x 150 x 150mm concrete strength test cube, label and send to an approved laboratory for testing, including paying all charges and submit report to the Agent. (only successful tests will be paid for)	No	3
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
17	Strip footings	m3	4
18	Strip footings in pit	m3	3
19	Thickening under surface bed	m3	1
20	Surface beds in pit	m3	3
21	In surface beds cast on waterproofing(elsewhere)	m3	1
Carried Forward			R
Section No. 8 Bill No. 1 2 Envirolloo Toilets & 4 Urinary			

Brought Forward			R
22	In surface beds cast to falls	m3	1
23	In aprons/pavings/ramps cast in panels	m3	1
24	Thickening down apron on edge 110 x 200mm wide, including all necessary excavations, backfilling and compacting.	m	14
25	Slabs	m3	2
<u>SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a woodfloat</u>			
26	Aprons, pavings, ramps, etc	m2	4
<u>Finishing top surfaces of concrete with a steel trowel</u>			
27	Surface beds, slabs, etc.	m2	26
<u>FORMWORK</u>			
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>			
<u>Rough formwork to</u>			
28	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	3
<u>Permanent formwork to soffits</u>			
29	Corrugated iron sheets as permanent formwork	m2	9
30	Form 500mm diameter opening in floor slab	No	2
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
31	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	26
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>			
Carried Forward			R
Section No. 8 Bill No. 1 2 Enviroloo Toilets & 4 Urinary			

	Brought Forward			R	
	<u>Brickwork of NFX bricks (14MPa nominal compressive strenght) in class I mortar in foundations</u>				
32	One brick walls in holes	m2	26		
33	One brick walls	m2	10		
34	115mm Brick corbelling in pit	m	17		
	<u>Brickwork reinforcement</u>				
35	150mm Wide reinforcement built in horizontally	m	424		
	<u>FACE BRICKWORK</u>				
	<u>Equal and approved facebricks to match existing pointed with recessed horizontal and vertical joints</u>				
36	Extra over brickwork for face brickwork	m2	23		
	<u>INTERNAL PLASTER</u>				
	<u>Cement plaster on brickwork;</u>				
37	On walls in pit	m2	29		
	<u>FLOOR AND WALL SEALERS</u>				
	<u>Minimum two coats 'approved' black epoxy coat:Cement plaster on brickwork;</u>				
38	On internal textured plaster walls	m2	29		
	<u>SUPERSTRUCTURE</u>				
	<u>Brickwork of NFP bricks (7 MPa nominal compressive strength) in class II mortar</u>				
39	Half brick walls in beamfilling	m2	3		
40	Half brick walls	m2	10		
41	One brick walls	m2	26		
	<u>Brickwork reinforcement</u>				
42	75mm Wide reinforcement built in horizontally	m	229		
	Carried Forward			R	
	Section No. 8				
	Bill No. 1				
	2 Envirolloo Toilets & 4 Urinary				

Brought Forward			R
43	150mm Wide reinforcement built in horizontally	m	134
	<u>Turning pieces</u>		
44	115mm Wide turning pieces to lintels etc	m	6
	<u>Galvanised wire ties etc</u>		
45	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	m	10
	<u>Prestressed fabricated lintels</u>		
46	110mm x 70mm Lintol not exceeding 3m long, hoisted into position and laid over opening in brick wall with ends bedded in class II mortar	m	3
47	110mm x 70mm Lintol exceeding 3m long, hoisted into position and laid over slab	m	8
	<u>FACE BRICKWORK</u>		
	<u>Facebricks pointed with recessed horizontal and vertical joints</u>		
48	Face brick piers	m3	0.3
49	Half brick walls	m2	17
50	Extra over brickwork for face brickwork	m2	21
51	Fair raking cutting	m	11
	<u>Brick-on-edge header course copings, sills, etc of face bricks pointed with recessed joints on all exposed faces</u>		
52	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit	m	2
53	Extra over brickwork for brick-on-edge 100mm wide sill set sloping and slightly projecting	m	2
54	Extra over coping	m	2
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>		
	<u>NUTEC-CEMENT WINDOW SILLS</u>		
Carried Forward			R
Section No. 8 Bill No. 1 2 Enviroloo Toilets & 4 Urinary			

Brought Forward			R
<u>Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc</u>			
55	15 x 150mm Wide sills set flat and slightly projecting	m	2
<u>One layer of type 375 micron Consol Plastics Brikgrip DPC or equal and approved embossed damp proof course</u>			
56	In walls	m2	4
<u>Polyolefin 0,25mm damp proof membrane sheeting complying with SABS 952, Type C in widest practicable widths with all joints lapped 200mm and sealed in accordance with the manufacturer's instruction</u>			
57	Under surface beds	m2	21
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
<u>0,6mm "IBR" Z275 spelter galvanised troughed sheet steel in single lengths fixed to timber purlins and 0,6mm galvanised sheet steel accessories</u>			
58	Roof covering with pitches not exceedin 25 degrees	m2	16
<u>ROOFS CONSTRUCTION</u>			
59	Roof construction over Enviro-loo toilet building approximate flat area, 10 m2 on plan complete including trusses, jackrafters, bracing and hoisting into position approximately 2,5m high above floor level all in accordance with the Architects drawings at the back of these bills of quantities.	No	1
<u>Sawn softwood grade 4</u>			
60	38 x 114mm Wall plates	m	9
<u>Sundries</u>			
61	Two coats creosote on sawn timbers	m2	13
62	4mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	m	10
<u>EAVES, VERGES, ETC</u>			
Carried Forward			R
Section No. 8 Bill No. 1 2 Envirolloo Toilets & 4 Urinary			

Brought Forward			R
<u>"Everite FC77" pressed fibre-cement</u>			
63	15 x 230mm Fascias boards including galvanised steel H-profile jointing strips	m	17
<u>INSULATION</u>			
<u>Aerolite insulation.</u>			
64	50mm Insulation closely fitted and laid on top of brandering, between roof timbers.	m2	7
<u>LOCKS</u>			
<u>"Union" or equal and approved</u>			
65	682-24-52 SC Three Lever lockset	No	2
<u>LETTERS, NAMEPLATES, ETC</u>			
66	75 x 150mm Natural anodised aluminium plate with male/female symbol	No	2
<u>FITINGS ETC</u>			
<u>"Nampak"</u>			
67	"TR2" lockable toilet roll holder plugged	No	1
<u>SUNDRIES</u>			
68	38mm Diameter rubber door stop plugged	No	2
<u>WELDED SCREENS, GATES, ETC</u>			
69	Single gate 900 x 2215mm hiigh formed of 50 x 50 x 2.5mm square tubing outer frame, with 30 x 30 x 2mm diagonal square tubing bars welded at 100mm centres maximum, complete with bullet hinges welded on, and locking mechanism suitable for and including padlock.	No	2
<u>PRESSED STEEL COMBINATION DOORS AND FRAMES INCLUDING BUILDING INTO BRICKWORK</u>			
<u>GALVANISED PRESSED STEEL COMBINATION DOORS AND FRAMES</u>			
70	Standard Door 813 x 2032mm high with rebated frame suitable for one brick wall with padlatch	No	2
Carried Forward			R
Section No. 8 Bill No. 1 2 Envirolloo Toilets & 4 Urinary			

	Brought Forward			R
	<u>STEEL WINDOWS, DOORS, ETC</u>			
	<u>Standard residential windows complete with furniture and 15 x15mm solid mild steel horizontal bars at equal spacing welded to inside of opennable section</u>			
71	Window type NE1, 533 x 654mm high	No	3	
	<u>EXTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
72	On walls	m2	8	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
73	On walls	m2	41	
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic floor finish on concrete</u>			
74	40mm Thick on floors and landings	m2	16	
75	75mm High coved skirtings	m	16	
	<u>PLUMBING AND DRAINAGE</u>			
	<u>SANITARY FITTINGS (PROVISIONAL)</u>			
76	450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts	No	2	
	<u>WASTE UNIONS, ETC</u>			
77	32mm "301CP" Basin waste union	No	2	
	<u>TRAPS, ETC</u>			
	<u>"Marley"</u>			
78	32 x 50mm Deep seal "P" or "S" trap	No	2	
	<u>SANITARY PLUMBING</u>			
	Carried Forward			R
	Section No. 8			
	Bill No. 1			
	2 Envirolloo Toilets & 4 Urinary			

Brought Forward				R
<u>uPVC pipes</u>				
79	50mm Pipes	m	15	
80	110mm Pipes	m	10	
<u>Extra over uPVC pipes for fittings</u>				
81	50mm Bend	No	4	
82	100mm Bend	No	2	
83	50 mm Junction	No	4	
84	50mm Access junction	No	4	
85	50mm Access bend	No	4	
86	110mm Access Junction	No	2	
87	50mm Access reducing junction	m	4	
88	50mm "GI Two-way" vent valve	No	4	
<u>WATER SUPPLY</u>				
<u>Class 0 copper pipes</u>				
89	15 mm Pipes	m	15	
90	15mm Pipes chased in walls	m	18	
91	22mm Pipes	m	15	
<u>Extra over class 0 copper pipes for capillary fittings</u>				
92	15mm Fittings	No	6	
93	22mm Fittings	No	6	
<u>Copper overflow and service pipes</u>				
94	15mm Service pipe 350mm girth	No	6	
<u>FIRE APPLIANCES ETC</u>				
<u>"Chubb"</u>				
95	4,5kg Carbon dioxide fire extinguisher	No	1	
Carried Forward				R
Section No. 8 Bill No. 1 2 Envirolloo Toilets & 4 Urinary				

	Brought Forward			R	
	<u>Enviroloo Unit</u>				
96	Erect "Enviroloo" set up and fixed complete as per manufacturers instruction - manufacturer to supply and delivery arrangements contact 011 762 1624 of Enviroloo Options.	No	2		
97	Erect "Enviroloo" urinals complete as per manufacturers instruction - manufacturer to supply and delivery arrangements contact 011 762 1624 of Enviroloo Options.	No	4		
	<u>5mm Clear float glass</u>				
	<u>GLAZING TO STEEL WITH PUTTY</u>				
98	Panes not exceeding 0.1m2.	m2	2		
	<u>PAINTWORK, ETC</u>				
	<u>On Floated Plaster</u>				
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>				
99	On external walls	m2	8		
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>				
100	On internal walls	m2	41		
	<u>ON FLOATED PLASTER</u>				
	<u>ON FIBRE CEMENT</u>				
	<u>One coat primer, one coat universal undercoat and two coats "Plascon Velvaglo Polyurethane Enamel" or equal and approved paint</u>				
101	On fascia and barge boards	m	17		
	<u>ON METAL</u>				
	<u>Spot primer defects in pre-primed surfaces with zinc chromate primer UC 53, one universal undercoat and two coats Velvaglo or equal and approved enamel paint</u>				
102	On pressed steel door frames	m2	3		
	Carried Forward			R	
	Section No. 8				
	Bill No. 1				
	2 Enviroloo Toilets & 4 Urinary				

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 9</u>			
	<u>BILL NO. 1</u>			
	<u>ENVIROLOO TOILETS (ALL TRADES BILL)</u>			
	PREAMBLESFor preambles refer to Specification of Materials and Method to be used			
	<u>SITE CLEARANCE ETC</u>			
	<u>Site clearance</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	83	
2	Stripping average 150mm thick layer of top soil and stockpiling on site	m2	83	
	<u>EXCAVATIONS, FILLING, ETC, OTHER THAN BULK</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Pit	m3	84	
4	Trenches in pit	m3	7	
	<u>Excavation in earth not exceeding 2m deep</u>			
5	Trenches	m3	5	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
6	Soft rock	m3	5	
7	Hard rock	m3	2	
	<u>Extra over all excavations for carting away</u>			
8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	92	
	<u>Risk of collapse of excavations</u>			
9	Sides of trench and hole excavations not exceeding 1,5m deep	m2	42	
	Carried Forward			
	Section No. 9			
	Bill No. 1			
	4 Enviroloo Toilets & Disabled			
			R	

Brought Forward			R
10	Sides of trench and pit excavations exceeding 1,5m deep	m2	53
<u>Earth filling obtained from the excavations on site and compacted to 93% Mod AASHTO density</u>			
11	Backfilling to trenches, holes, etc	m3	4
12	Under floors, steps, paving etc,.	m3	8
<u>Compaction of surfaces</u>			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m2	53
<u>Approved soil insecticide</u>			
14	Under floors etc including forming and poisoning V-shaped channels against foundation walls etc, filling in channels and ramming	m2	53
15	To bottom and sides of trenches, holes etc	m2	81
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>Test Blocks</u>			
16	Making of 150 x 150 x 150mm concrete strength test cube, label and send to an approved laboratory for testing, including paying all charges and submit report to the Agent. (only successful tests will be paid for)	No	3
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
17	Strip footings	m3	3
18	Strip footings in pit	m3	3
19	Thickening under surface bed	m3	2
20	Surface beds in pit	m3	2
21	In surface beds cast on waterproofing(elsewhere)	m3	2
Carried Forward			R
Section No. 9 Bill No. 1 4 Envirolloo Toilets & Disabled			

Brought Forward			R
22	In surface beds cast to falls	m3	2
23	In aprons/pavings/ramps cast in panels	m3	2
24	Thickening down apron on edge 110 x 200mm wide, including all necessary excavations, backfilling and compacting.	m	56
25	Slabs	m3	3
<u>SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a woodfloat</u>			
26	Aprons, pavings, ramps, etc	m2	12
<u>Finishing top surfaces of concrete with a steel trowel</u>			
27	Surface beds, slabs, etc.	m2	33
<u>FORMWORK</u>			
<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>			
<u>Rough formwork to</u>			
28	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	28
<u>Permanent formwork to soffits</u>			
29	Corrugated iron sheets as permanent formwork	m2	22
30	Form 500mm diameter opening in floor slab	No	4
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Fabric reinforcement</u>			
31	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	22
<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>			
Carried Forward			R
Section No. 9 Bill No. 1 4 Enviroloo Toilets & Disabled			

	Brought Forward			R
	<u>Brickwork of NFX bricks (14MPa nominal compressive strenght) in class I mortar in foundations</u>			
32	One brick walls in holes	m2	38	
33	One brick walls	m2	7	
34	115mm Brick corbelling in pit	m	23	
	<u>Brickwork reinforcement</u>			
35	150mm Wide reinforcement built in horizontally	m	530	
	<u>FACE BRICKWORK</u>			
	<u>Equal and approved facebricks to match existing pointed with recessed horizontal and vertical joints</u>			
36	Extra over brickwork for face brickwork	m2	31	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork;</u>			
37	On walls in pit	m2	38	
	<u>FLOOR AND WALL SEALERS</u>			
	<u>Minimum two coats 'approved' black epoxy coat:Cement plaster on brickwork;</u>			
38	On internal textured plaster walls	m2	38	
	<u>SUPERSTRUCTURE</u>			
	<u>Brickwork of NFP bricks (7 MPa nominal compressive strength) in class II mortar</u>			
39	Half brick walls in beamfilling	m2	4	
40	Half brick walls	m2	20	
41	One brick walls	m2	39	
	<u>Brickwork reinforcement</u>			
42	75mm Wide reinforcement built in horizontally	m	395	
	Carried Forward			R
	Section No. 9			
	Bill No. 1			
	4 Envirolloo Toilets & Disabled			

Brought Forward			R
43	150mm Wide reinforcement built in horizontally	m	189
<u>Turning pieces</u>			
44	115mm Wide turning pieces to lintels etc	m	12
<u>Galvanised wire ties etc</u>			
45	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	m	12
<u>Prestressed fabricated lintels</u>			
46	110mm x 70mm Lintol not exceeding 3m long, hoisted into position and laid over opening in brick wall with ends bedded in class II mortar	m	10
47	110mm x 70mm Lintol exceeding 3m long, hoisted into position and laid over concrete slab	m	10
<u>FACE BRICKWORK</u>			
<u>Facebricks pointed with recessed horizontal and vertical joints</u>			
48	Face brick piers	m3	0.3
49	Half brick walls	m2	22
50	Extra over brickwork for face brickwork	m2	30
51	Fair raking cutting	m	22
<u>Brick-on-edge header course copings, sills, etc of face bricks pointed with recessed joints on all exposed faces</u>			
52	Extra over brickwork for brick-on-edge header course lintel pointed on face and 110mm soffit	m	3
53	Extra over brickwork for brick-on-edge 100mm wide sill set sloping and slightly projecting	m	3
54	Extra over copping	m	3
<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
<u>NUTEC-CEMENT WINDOW SILLS</u>			
Carried Forward			R
Section No. 9			
Bill No. 1			
4 Enviroloo Toilets & Disabled			

	Brought Forward			R
	<u>Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc</u>			
55	15 x 150mm Wide sills set flat and slightly projecting	m	3	
	<u>One layer of type 375 micron Consol Plastics Brikgrip DPC or equal and approved embossed damp proof course</u>			
56	In walls	m2	7	
	<u>Polyolefin 0,25mm damp proof membrane sheeting complying with SABS 952, Type C in widest practicable widths with all joints lapped 200mm and sealed in accordance with the manufacturer's instruction</u>			
57	Under surface beds	m2	53	
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>0,6mm "IBR" Z275 spelter galvanised troughed sheet steel in single lengths fixed to timber purlins and 0,6mm galvanised sheet steel accessories</u>			
58	Roof covering with pitches not exceedin 25 degrees	m2	23	
	<u>ROOFS CONSTRUCTION</u>			
59	Roof construction over Enviro-loo toilet building approximate flat area, 16 m2 on plan complete including trusses, jack rafters, bracing and hoisting into position approximately 2,5m high above floor level all in accordance with the Architects drawings at the back of these bills of quantities.	No	1	
	<u>Sawn softwood grade 4</u>			
60	38 x 114mm Wall plates	m	14	
	<u>Sundries</u>			
61	Two coats creosote on sawn timbers	m2	12	
62	4mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	m	9	
	<u>EAVES, VERGES, ETC</u>			
	Carried Forward			R
	Section No. 9			
	Bill No. 1			
	4 Envirolloo Toilets & Disabled			

Brought Forward			R
<u>"Everite FC77" pressed fibre-cement</u>			
63	15 x 230mm Fascias boards including galvanised steel H-profile jointing strips	m	21
<u>INSULATION</u>			
<u>Aerolite insulation.</u>			
64	50mm Insulation closely fitted and laid on top of brandering, between roof timbers.	m2	12
<u>LOCKS</u>			
<u>"Union" or equal and approved</u>			
65	682-24-52 SC Three Lever lockset	No	4
<u>LETTERS, NAMEPLATES, ETC</u>			
66	75 x 150mm Natural anodised aluminium plate with female symbol	No	4
67	75 x 150mm Natural anodised aluminium plate with paraplegic symbol	No	1
<u>FITINGS ETC</u>			
<u>"Chairman Industries"</u>			
68	32mm Type DL2 side grab rail plugged	No	1
69	32mm Type SR2 rear grab rail plugged	No	1
<u>"Nampak"</u>			
70	"TR2" lockable toilet roll holder plugged	No	1
<u>SUNDRIES</u>			
71	38mm Diameter rubber door stop plugged	No	5
<u>WELDED SCREENS, GATES, ETC</u>			
72	Single gate 900 x 1615mm high formed of 50 x 50 x 2.5mm square tubing outer frame, with 30 x 30 x 2mm diagonal square tubing bars welded at 100mm centres maximum, complete with bullet hinges welded on, and locking mechanism suitable for and including padlock.	No	2
Carried Forward			R
Section No. 9 Bill No. 1 4 Envirolloo Toilets & Disabled			

Brought Forward			R
<u>PRESSED STEEL COMBINATION DOORS AND FRAMES INCLUDING BUILDING INTO BRICKWORK</u>			
<u>GALVANISED PRESSED STEEL COMBINATION DOORS AND FRAMES</u>			
73	Standard Door 813 x 2032mm high with rebated frame suitable for one brick wall with padlatch	No	4
<u>APPROVED STEEL DOORS, ETC</u>			
<u>0.88mm Zinc coated Combi standard steel door</u>			
74	Door size 1200 x 2100mm high	No	1
<u>DOOR FRAMES, INCLUDING BUILDING INTO BRICKWORK</u>			
<u>1,2mm Double rebated Zinc coated (Galvanised) standard steel door frames suitable for one brick walls with Padlatch</u>			
75	Frame for door 1200 x 2100mm high	No	1
<u>STEEL WINDOWS, DOORS, ETC</u>			
<u>Standard residential windows complete with furniture and 15 x15mm solid mild steel horizontal bars at equal spacing welded to inside of opennable section</u>			
76	Window type NE1, 533 x 654mm high	No	5
<u>EXTERNAL PLASTER</u>			
<u>Cement plaster on brickwork</u>			
77	On walls	m2	11
<u>INTERNAL PLASTER</u>			
<u>Cement plaster on brickwork</u>			
78	On walls	m2	72
<u>GRANOLITHIC</u>			
Carried Forward			R
Section No. 9 Bill No. 1 4 Envirolloo Toilets & Disabled			

	Brought Forward			R
	<u>Untinted granolithic floor finish on concrete</u>			
79	40mm Thick on floors and landings	m2	23	
80	75mm High coved skirtings	m	24	
	<u>PLUMBING AND DRAINAGE</u>			
	<u>SANITARY FITTINGS (PROVISIONAL)</u>			
81	450 x 290mm "Bantam" cloakroom hand basin complete with single punched tapholes fixed to wall with and including two number 10mm bolts	No	3	
	<u>WASTE UNIONS, ETC</u>			
82	32mm "301CP" Basin waste union	No	3	
	<u>TRAPS, ETC</u>			
	<u>"Marley"</u>			
83	32 x 50mm Deep seal "P" or "S" trap	No	3	
	<u>SANITARY PLUMBING</u>			
	<u>uPVC pipes</u>			
84	50mm Pipes	m	25	
	<u>Extra over uPVC pipes for fittings</u>			
85	50mm Bend	No	3	
86	50 mm Junction	No	3	
87	50mm Access junction	No	3	
88	50mm Access bend	No	3	
89	50mm Access reducing junction	m	3	
90	50mm "GI Two-way" vent valve	No	3	
	<u>WATER SUPPLY</u>			
	<u>Class 0 copper pipes</u>			
91	15 mm Pipes	m	20	
	Carried Forward			R
	Section No. 9			
	Bill No. 1			
	4 Envirolloo Toilets & Disabled			

	Brought Forward			R
92	15mm Pipes chased in walls	m	25	
93	22mm Pipes	m	21	
	<u>Extra over class 0 copper pipes for capillary fittings</u>			
94	15mm Fittings	No	3	
95	22mm Fittings	No	3	
	<u>Copper overflow and service pipes</u>			
96	15mm Service pipe 350mm girth	No	3	
	<u>FIRE APPLIANCES ETC</u>			
	<u>"Chubb"</u>			
97	4,5kg Carbon dioxide fire extinguisher	No	1	
	<u>Enviroloo Unit</u>			
98	Erect "Enviroloo" set up and fixed complete as per manufacturers instruction - manufacturer to supply and delivery arrangements contact 011 762 1624 of Enviroloo Options.	No	5	
	<u>5mm Clear float glass</u>			
	<u>GLAZING TO STEEL WITH PUTTY</u>			
99	Panes not exceeding 0.1m2.	m2	2	
	<u>PAINTWORK, ETC</u>			
	<u>On Floated Plaster</u>			
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>			
100	On external walls	m2	11	
	<u>One coat alkali resistant primer, one undercoat and two coats eggshell enamel paint</u>			
101	On internal walls	m2	72	
	<u>ON FLOATED PLASTER</u>			
	<u>ON FIBRE CEMENT</u>			
	Carried Forward			R
	Section No. 9			
	Bill No. 1			
	4 Enviroloo Toilets & Disabled			

Item No		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 10</u>				
	<u>BILL NO. 1</u>				
	<u>EXTERNAL WORKS (ALL TRADES)</u>				
	<u>PREAMBLES</u>				
	The descriptions given in the various items below are not necessarily full and complete and reference must be made to the "Standard Preambles To All Trades", "Supplementary Preambles" and "Supplementary Specifications" to this contract for the full requirements of each scheduled item				
	<u>THE FOLLOWING IN APRONS & WALKWAYS</u>				
	<u>Earthworks</u>				
1	Excavate in earth to reduce levels	m3	96		
2	Extra over on excavations for surplus material from excavations and/or stock piles to an approved dumping site located by the contractor	m3	96		
3	Backfilling with G5 material under bases supplied and carted onto site by the Contractor all in accordance with SABS 1200Dm compacted in layers of 150mm to 93% Mod. AASHTO maximum density	m3	48		
4	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 97% Mod. AASHTO density	m2	320		
5	Approved brand of anti-termite soil poison applied by a registered pest control company and guaranteed against termite infestation for ten years under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m2	320		
6	Modified AASHTO Density tests on fillings as pointed out by the Engineer on site to the approval of the Project Manager.	No	8		
	Carried Forward			R	
	Section No. 10				
	Bill No. 1				
	External Works				

Brought Forward			R
<u>Concrete, Formwork & Reinforcement</u>			
7	Reinforced concrete 30MPa/19mm in aprons	m3	48
8	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional).	No	8
9	Finishing top surfaces of concrete aprons smooth with a steel trowel to falls	m2	320
10	10 x 10mm In horizontal expansion joints including raking out expansion joint filler as necessary	m	107
<u>Fabric reinforcement</u>			
11	Type 193 fabric reinforcement in aprons and v-drains	m2	320
<u>Waterproofing</u>			
<u>Joint sealants, etc.</u>			
12	10 x 10mm In vertical expansion joints including raking out expansion joint filler as necessary	m	107
<u>ELEVATED WATER TANK</u>			
<u>Excavation in earth not exceeding 2m deep below natural, reduced or made up ground level</u>			
13	Holes	m3	3
14	Extra over on excavations for surplus material from excavations and/or stock piles to an approved dumping site located by the contractor	m3	4
<u>Risk of collapse of excavations</u>			
15	Sides of trench and hole excavations not exceeding 1.5m deep	m2	14
16	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 97% Mod. AASHTO density	m2	3
Carried Forward			R
Section No. 10 Bill No. 1 External Works			

	Brought Forward			R
17	Backfilling with G5 material under floors, bases, etc. supplied and carted onto site by the Contractor all in accordance with SABS 1200Dm compacted in layers of 150mm to 93% Mod. AASHTO maximum den	m3	3	
18	Modified AASHTO Density tests on fillings as pointed out by the Engineer on site to the approval of the Project Manager.	No	1	
19	Approved brand of anti-termite soil poison applied by a registered pest control company and guaranteed against termite infestation for ten years under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m2	3	
	<u>Concrete, Formwork & Reinforcement</u>			
20	Reinforced concrete 30Mpa/19mm in bases	m3	3	
21	Surface bed	m3	1	
22	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional).	No	1	
	<u>REINFORCEMENT (PROVISIONAL)</u>			
	<u>Mild steel reinforcement to structural concrete work</u>			
23	Bars of various diameters	t	0.45	
	<u>Structural Steel</u>			
	<u>Painted Trusses, Columns, etc</u>			
	<u>Purlins, girts, bracing etc. bolted to steel</u>			
24	70 x 70 x 6 angle	t	0.17	
25	50 x 50 x 3 angle	t	0.10	
26	125 x 75 x 8 angle	t	0.15	
27	125 x 50 x 20 x 2 CFLC	t	0.10	
28	30 x 5 flat bar	t	0.15	
	Carried Forward			R
	Section No. 10 Bill No. 1 External Works			

Brought Forward				R
<u>Bolts, Fasteners, etc</u>				
29	Extra over structural steelwork for bolts, fasteners, tension cables etc	t	0.15	
<u>FENCING</u>				
<u>Galvanised mild steel diamond mesh fencing in 50mm diamond pattern with 3.15mm straining wire and 2mm binding wire on creosoted gumpole</u>				
30	1.8m High type 2 galvanised mesh fencing consisting of 2.5mm diameter galvanised wires and three 3.15 diameter galvanised straining wires	m	22	
31	Extra over fence for single pedestrian steel gate approximate size 900 x 2100mm high with marine fusion bond wire mesh complete with posts, keep, etc.	No	1	
<u>Budgetary Allowances</u>				
<u>Work for which budgetary allowances are provided will be measured and valued in accordance with clause 32 of the Principal Building Agreement and deducted in whole or in part if not required without and compensation for loss or profit on the said allowances</u>				
32	Allow an amount of R 45 000.00 (Forty Five Thousand Rand) for 3 Number drinking fountains. Each drinking fountain with a cost of R 15 000.00 (Fifteen Thousand Rand)		Item	45,000.00
33	Allow an amount of R 25 000.00 (Twenty Five Thousand Rand) for water reticulation from water tanks		Item	25,000.00
34	Allow an amount of R1 500.00 (One Thousand Five Hundred Rand) to provide all necessary apparatus, water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Project Manager, replace any defective work free of charge and leave perfect for all new buildings		Item	1,500.00
Carried to Final Summary				
Section No. 10				
Bill No. 1				
External Works				

FINAL SUMMARY					Amount
Section No		Page No			
1	Preliminaries & General	28			
2	Block A - 4 Classroom Block	47			
3	Block B - 4 Classroom Block	65			
4	Block C - 4 Classroom	86			
5	Block D - 4 Classroom	107			
6	Block G - Guard House	126			
7	Block T - Demolition of Existing Toilets	129			
8	Type B (2 Enviroloo Toilets & 4 Urinary)	140			
9	Type F (4 Enviroloo Toilets & Disabled)	151			
10	External Works	155			
	Sub Total			R	
<u>ADD: COMMUNITY LIAISON OFFICER</u>					
	Allow the sum of R 45 000.00 (Forty Five Thousand Rand) per month for Community Liaison Officer for a period of 6 Months	Item			45,000.00
	Sub - Total			R	
	Add Contingency: Sum of R 200 000.00 (Two Hundred Thousand Rand) - Amount to be utilised upon written approval by Independent Development Trust and to be deducted in whole or in part if not required	Item			200,000.00
	Sub-Total			R	
	Value Added Tax (15%)			R	