Item No		Quantity	Rate	Amount

SECTION NO. 1

BILL NO. 1

PRELIMINARIES & GENERAL

BUILDING AGREEMENT AND PRELIMINARIES

The JBCC Series 2000 Edition 4.1 Code 2101 March 2005, 2005 edition prepared by the Joint Building Contracts Committee, shall be the agreement, amended as hereinafter described The Preliminaries for use with the JBCC Series 2000 Principal Building Agreement (May 2005 edition) prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated in these bills of quantities

Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof

These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the above-mentioned documents

Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"

Notwithstanding anything to the contrary contained in any of the contract documents including the Principal Building Agreement and the Preliminaries, the provision of the "Preliminaries" as hereinafter set forth shall prevail and shall take precedence

Carried Forward R

	Brought Forward		R	

Preambles For Trades

The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained

Supplementary preambles to the Model Preambles covering clauses of a general nature, clauses pertaining to specific materials and amendments to clauses in the Model Preambles are incorporated in these bills of quantities to satisfy the requirements of this project

The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the Model Preambles and in any supplementary preambles

General

If the **contractor** selects Option A, in terms of sub-clause 26.9.4 in the **Contract Data**, for the purpose of adjustment of these **preliminaries**, the amount entered by the **contractor** into the amount column in these **preliminaries** is to be divided into one, or more, of the three categories provided, namely Fixed-value (F), Value-related (V) and Time-related (T)

Tenderers are advised that if any item is left unpriced by the Tenderer, the cost to the **employer** of such aforesaid item shall be deemed to have been included, or allowed for, by the Tenderer elsewhere in the prices.

SECTION A - PRINCIPAL BUILDING AGREEMENT

Definitions (A1)

1	Definitions and interpretation (clause 1)		
	F:..... ..V:..... T:.....	Item	
	Carried Forward		R

	Brought Forward			R
	Objective and Preparation (A2 to A14)			
2	Offer acceptance and performance (clause 2)			
	F:..... ..V:..... T:.....		Item	
3	Documents (clause 3)			
	F:..... ..V:..... T:.....		Item	
4	Design responsibility (clause 4)			
	F:..... ..V:..... T:.....		Item	
5	Employer's agents (clause 5)			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
	The principal agent shall:- monitor and control progress and scheduling- monitor all contract conditions, and- coordinate the efforts of the employer's agents, the contractor and subcontractorsThe powers conferred on the principal agent in terms of this clause and/or the exercising of these powers shall not be construed as removing or diminishing any of the obligations of the Contractor in terms of the Principal Building Agreement, whether financial, contractual or otherwise, nor shall the exercising of these powers create any privity of contract as between the Employer or his agents on the one part and the Contractor or subcontractors or suppliers on the other part			
	The principal agent reserves the right to attend and participate in all contractor/subcontractor's meetings, to invite other employer's agents to attend such meetings at his discretion and to converse and chair any such meetings if the contractor is derelict in his duty in arranging such meetings to the degree of frequency and comprehensiveness dictated in the opinion of the project manager by the circumstances and exigencies of the construction process			
	The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained			
6	Site representative (clause 6)			
	F:..... ..V:..... T:.....	Item		
7	Compliance with regulations (clause 7)			
	F:..... ..V:..... T:.....	Item		
	Carried Forward			R

	Brought Forward			R
	Sub-clause 7.3 added: The Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 will in all respects be applicable to this contract. All obligations in respect of health and safety requirements of the Contractor are set out in the Scope of Work. Sub-clause 7.3.1 is added: Notwithstanding any actions which the employer may take, the contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2014, for which the contractor is liable as mandatory. By entering into this agreement it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37 (2) of the Act and will enter into the mandatory agreement as set out in the Scope of Work. This clause will be sufficient to establish the mandatory obligations of the contractor in the event the parties fail to execute the aforesaid mandatory agreement." Note: A separate clause has been included in Section C: Specific Preliminaries of the bills of quantities / lump sum document for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification. The contractor shall also comply with the additional requirements with regard to the Coronavirus pandemic in terms of all Covid-19 legislation, regulations and guidelines.			
8	Works risk (clause 8)			
	F:..... ..V:..... T:.....	Item		
9	Indemnities (clause 9)			
	F:..... ..V:..... T:.....	Item		
10	Works insurances (clause 10)			
	F:..... ..V:..... T:.....	Item		
	Carried Forward			R

	Brought Forward			R
11	Liability insurances (clause 11)			
	F:..... ..V:..... T:.....		Item	
12	Effecting insurance (clause 12)			
	F:..... ..V:..... T:.....		Item	
13	***No clause***		Item	
14	Security (clause 14)			
	F:..... ..V:..... T:.....		Item	
	The security to be submitted by the contractor to the employer will be as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT)			
	Carried Forward			R

	Brought Forward		R	
	Execution (A15-A23)			
	A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS			
	Clause 15.0			
	Clause 15.1.1 is amended by replacing it with:			
	No clause			
	Clause 15.1.2 is amended by replacing it with:			
	The **security** selected in terms of 14.0			
	Clause 15.1 is amended by the addition of the following clause: 15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) **calendar days** of **commencement date**			
	Clause 15.2.1 is amended by replacing it with the following clause:			
15	Preparation for and execution of the works (clause 15)			
	F:..... ..V:..... T:.....	Item		
16	Access to the works (clause 16)			
	F:..... ..V:..... T:.....	Item		
17	Contract instructions (clause 17)			
	F:..... ..V:..... T:.....	Item		
18	Setting out of the works (clause 18)			
	F:..... ..V:..... T:.....	Item		
	Carried Forward		R	

	Brought Forward			R
	The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachment			
	The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachments			
19	Assignment (clause 19)			
	F:..... ..V:..... T:.....	Item		
20	Nominated subcontractors (clause 20)			
	F:..... ..V:..... T:.....	Item		
21	Selected subcontractors (clause 21)			
	F:..... ..V:..... T:.....	Item		
	Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted All amounts allowed under Provisional Amounts are intended to be awarded to Selected Subcontractors			
	Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted All amounts allowed under Provisional Amounts are intended to be awarded to Selected Subcontractors			
	Carried Forward			R

	Brought Forward			R
22	Employer's Direct Contractors (clause 22)			
	F:..... ..V:..... T:.....		Item	
23	Contractor's Domestic Sub-Contractors (Clause 23)			
	F:..... ..V:..... T:.....		Item	
	Completion (A24-A30)			
24	Practical completion (clause 24)			
	F:..... ..V:..... T:.....		Item	
25	Works completion (clause 25)			
	F:..... ..V:..... T:.....		Item	
26	Final completion (clause 26)			
	F:..... ..V:..... T:.....		Item	
27	Latent defects liability period (clause 27)			
	F:..... ..V:..... T:.....		Item	
28	Sectional completion (clause 28)			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
29	Revision of date of practical completion (clause 29)			
	F:..... ..V:..... T:.....		Item	
	The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3)			
	The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3)			
30	Penalty for non-completion (clause 30)			
	F:..... ..V:..... T:.....		Item	
	Payment (A31 - A35)			
31	Interim payment to the contractor (clause 31)			
	F:..... ..V:..... T:.....		Item	
32	Adjustment to the contract value (clause 32)			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
	Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract 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 final certificate, it will be in writing			
	Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract 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 final certificate, it will be in writing			
33	Recovery of expense and loss (clause 33)			
	F:..... ..V:..... T:.....		Item	
34	Final account and final payment (clause 34)			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
	The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account			
	The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion			
	The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non- Performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account			
35	Payment to other parties (clause 35)			
	F:..... ..V:..... T:.....	Item		
	Cancellation (A36-A39)			
36	Cancellation by employer - contractor's default (clause 36)			
	F:..... ..V:..... T:.....	Item		
	Carried Forward			R

	Brought Forward			R
37	Cancellation by employer - loss and damage (clause 37)			
	F:..... ..V:..... T:.....		Item	
38	Cancellation by contractor - employer's default (clause 38)			
	F:..... ..V:..... T:.....		Item	
39	Cancellation - cessation of the works (clause 39)			
	F:..... ..V:..... T:.....		Item	
	Dispute (A40)			
40	Dispute Settlement (clause 40)			
	F:..... ..V:..... T:.....		Item	
	Substitute Provisions (A41)			
41	State clauses (Clause 41)			
	F:..... ..V:..... T:.....		Item	
	Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder			
	SCHEDULE			
	Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder			
	Carried Forward			R

	Brought Forward			R
42	Pre-tender information (clause 42)			
	F:..... ..V:..... T:.....		Item	
	DISPUTE RESOLUTION (A30)			
	42.1 CONTRACTING AND OTHER PARTIES			
	42.1.1 Employer: The Mvula Trust			
	42.1.2 Principal Agent: RMC Quantity Surveyors Inc			
	42.1.5 Civil and Structural Engineer: RMC Quantity Surveyors Inc			
	42.2 CONTRACT DETAILS			
	42.2.1 Works Description: Construction of sanitation facilities			
	42.2.2 Site Description: as per the information on the tender data			
	42.2.3 Work or installations by direct contractors:			
	As per the information provided in the tender data			
	42.2.4 This agreement is for a government contract where there are specific options that are applicable to a State organ only - Yes			
	42.2.5 Date on which possession of the site is intended to be given:			
	As per the information provided in the tender data			
	42.2.6 Period for the commencement of the works after the contractor takes possession of site: **Seven Days**			
	Carried Forward			R

Brought Forward		R	
42.2.7 For the works as a whole. Intended date of practical completion and the penalty per calendar day Intended Date of Practical Completion: As per the information provided in the tender data Penalty Amount: The penalty per calender day shall be:0.05% per R100 of the contract value (inclusive of value added tax) 42.2.8 For the works in sections: Intended date of practical completion and the penalty per calender day Section 1.N/A.....DateR.N/A..... Penalty Amount 42.2.9 The law applicable to this agreement shall be that of South Africa (country) **42.3 INSURANCES** 42.3.1 Contract works insurance to be effected by:Contractor: For the Sum of R Contract Amount + 10.00 % With a deductible amount the contractor deems appropriate 42.3.2 Supplementary insurance is required No 42.3.3 Public liability insurance to be effected by: Contractor: For the Sum of R 5 000 000-00 With a deductible amount the contractor deems appropriate **42.4 DOCUMENTS** 42.4.1 Waivers of contractors lien or right of continuing possession is required Yes			
Carried Forward		R	

Brought Forward			R
42.4.2 Number of construction document copies to be supplied to the contractor free of charge: 3 Number of			
42.4.3 Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with: Standard System of Measuring Builders Work			
42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within 5 working days The priced bills of quantities must be handed in with the tender			
42.4.5 JBCC Engineering General Conditions are to be included in the contract documents: No			
42.4.6 The contract value is to be adjusted using escalation adjustment indices No Where JBCC CPAP is to be used Base n/a			
42.4.7 Details of changes made to the provision of JBCC standard documentation: Part 1 - Contract Data completed by the Employer			
Carried Forward			R

	Brought Forward			R
	SECTION B : PRELIMINARIES			
	Definitions and interpretation (B1)			
43	Definition and interpretation (B1.1 - B1.4.6)			
	F:..... ..V:..... T:.....	Item		
	Documents (B2)			
44	Checking of documents (B2.1)			
	F:..... ..V:..... T:.....	Item		
45	Provisional bills of quantities (B2.2) NA			
	F:..... ..V:..... T:.....	Item		
46	Availability of construction documentation (B2.3)			
	F:..... ..V:..... T:.....	Item		
47	Interests of agents (B2.4)			
	F:..... ..V:..... T:.....	Item		
48	Priced documents (B2.5)			
	F:..... ..V:..... T:.....	Item		
49	Tender submission (B2.6)			
	F:..... ..V:..... T:.....	Item		
	Carried Forward			R

	Brought Forward			R
	The site (B3)			
50	Defined works area (B3.1) F:..... ..V:..... T:.....		Item	
51	Geotechnical investigation (B3.2) F:..... ..V:..... T:.....		Item	
52	Inspection of the site (B3.3) F:..... ..V:..... T:.....		Item	
53	Existing premises occupied (B3.4) F:..... ..V:..... T:.....		Item	
54	Previous work - dimensional accuracy (B3.5) F:..... ..V:..... T:.....		Item	
55	Previous work - defects (B3.6) F:..... ..V:..... T:.....		Item	
56	Services - known (B3.7) F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
57	Services - unknown (B3.8)			
	F:..... ..V:..... T:.....		Item	
58	Protection of trees etc (B3.9)			
	F:..... ..V:..... T:.....		Item	
59	Articles of value (B3.10)			
	F:..... ..V:..... T:.....		Item	
60	Inspection of adjoining properties etc (B3.11)			
	F:..... ..V:..... T:.....		Item	
	Management of contract (B4)			
61	Management of the works (B4.1)			
	F:..... ..V:..... T:.....		Item	
62	Programme for the works (B4.2)			
	F:..... ..V:..... T:.....		Item	
63	Progress meetings (B4.3)			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R	
64	Technical meetings (B4.4)				
	F:..... ..V:..... T:.....		Item		
65	Labour and Plant records (B4.5)				
	F:..... ..V:..... T:.....		Item		
	Samples, Shop Drawings and Manufacturer's Instructions (B5)				
66	Samples of materials (B5.1)				
	F:..... ..V:..... T:.....		Item		
67	Workmanship samples (B5.2)				
	F:..... ..V:..... T:.....		Item		
68	Shop drawings (B5.3)				
	F:..... ..V:..... T:.....		Item		
69	Compliance with Manufacturer's Instructions (B5.4)				
	F:..... ..V:..... T:.....		Item		
	Temporary works and plant (B6)				
70	Deposits and fees (B6.1)				
	F:..... ..V:..... T:.....		Item		
	Carried Forward			R	

	Brought Forward			R
71	Enclosure of the works (B6.2)			
	F:..... ..V:..... T:.....		Item	
72	Advertising (B6.3)			
	F:..... ..V:..... T:.....		Item	
73	Plant, equipment, sheds and offices (B6.4)			
	F:..... ..V:..... T:.....		Item	
74	Main notice board (B6.5)			
	F:..... ..V:..... T:.....		Item	
75	Subcontractors' notice board (B6.6)			
	Not applicable		Item	
	Temporary services (B7)			
76	Location (B7.1)			
	F:..... ..V:..... T:.....		Item	
77	Water (B7.2) Option [A] shall apply			
	F:..... ..V:..... T:.....		Item	
78	Electricity (B7.3) Option [A] shall apply			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
79	Telecommunication facilities (B7.4)			
	F:..... ..V:..... T:.....		Item	
80	Ablution facilities (B7.5) Option [A] shall apply			
	F:..... ..V:..... T:.....		Item	
	Prime cost amounts (B8)			
81	Responsibility for prime cost amounts (B8.1)			
	F:..... ..V:..... T:.....		Item	
	Attendance on N/S Subcontractors (B9)			
82	General attendance (B9.1)			
	F:..... ..V:..... T:.....		Item	
83	Special attendance (B9.2)			
	F:..... ..V:..... T:.....		Item	
84	Commissioning - Fuel, water and power (B9.3)			
	F:..... ..V:..... T:.....		Item	
	Financial aspects (B10)			
85	Statutory taxes, duties and levies (B10.1)			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
86	Payment of preliminaries (B10.2) Option [A] shall apply F:..... ..V:..... T:.....	Item		
87	Adjustment of preliminaries (B10.3) Option [A] shall apply F:..... ..V:..... T:.....	Item		
88	Payment certificate cash flow (B10.4) F:..... ..V:..... T:.....	Item		
	General (B11)			
89	Protection of works (B11.1) F:..... ..V:..... T:.....	Item		
90	Protection/isolation of existing/sectionally occupied works (B11.2) F:..... ..V:..... T:.....	Item		
91	Security of the Works (B11.3) F:..... ..V:..... T:.....	Item		
	The security to be submitted by the contractor to the employer will be as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT)			
	Carried Forward			R

	Brought Forward			R
92	Notice before covering work (B11.4)			
	F:..... ..V:..... T:.....		Item	
93	Disturbance (B11.5)			
	F:..... ..V:..... T:.....		Item	
94	Works cleaning and clearing (B11.7)			
	F:..... ..V:..... T:.....		Item	
95	Vermin (B11.8)			
	F:..... ..V:..... T:.....		Item	
96	Overhand work (B11.9)			
	F:..... ..V:..... T:.....		Item	
97	Instruction manuals and guarantees (B11.10)			
	F:..... ..V:..... T:.....		Item	
98	As built information (B11.11)			
	F:..... ..V:..... T:.....		Item	
99	Tenant Installations (B11.12)			
	F:..... ..V:..... T:.....		Item	
	Carried Forward			R

	Brought Forward			R
	Schedule of variables (B12)			
100	Pre-tender information (B12.1)			
	F:..... ..V:..... T:.....		Item	
	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional:			
	No			
	12.1.2 Availability of construction documentation (B2.3)			
	Construction documentation is not complete No			
	12.1.3 Interest of agents (B2.4)			
	12.1.4 Defined works area (B3.1)			
	12.1.5 Geotechnical investigation (B3.2) N/A			
	12.1.6 Existing premises occupied (B3.4)			
	12.1.7 Previous work - dimensional accuracy (B3.4)			
	12.1.8 Previous work - defects (B3.5)			
	12.1.9 Services - known (B3.7)			
	12.1.10 Protection of trees (B3.9) All trees should be protected and only on instruction of the Principal Agent may any trees be removed			
	12.1.11 Inspection of adjoining properties (B3.11)			
	12.1.12 Enclosure of the works (B6.2)			
	12.1.13 Offices (B6.4.3) An office for the clerk of works should be provided			
	12.1.14 Main notice board (B6.5) YES			
	12.1.15 Subcontractors notice board (B6.6) A notice board is required No			
	Carried Forward			R

	Brought Forward		R	
	12.1.16 Water (B7.2) Alternative Selected: A			
	12.1.17 Electricity (B7.3) Alternative selected: A			
	12.1.18 Telecommunications (B7.4)			
	12.1.19 Ablution facilities (B7.5) Alternative selected: A			
	12.1.20 Protection of existing/sectionally occupied works (B11.2)			
	12.1.21 Special attendance (B9.2) Subcontractor (1) details: N/A			
	12.1.22 Protection of the works (B11.1) N/A			
	12.1.23 Disturbance (B11.5) N/A			
	12.1.24 Environmental Disturbance (B11.6) N/A			
	Post tender information (B12.2)			
	12.2.1 Payment of preliminaries Alternative selected: B			
	12.2.2 Adjustment of preliminaries Alternative selected: A			
	12.2.3 Additional agreed preliminaries items N/A			
	SECTION C: SPECIFIC PRELIMINARIES			
	Any special items to meet the particular circumstances of a specific project are embodied in this section. Where required for an aspect of the works to be executed according to a design by a consulting engineer, a recital of the headings to the individual clauses of the JBCC Engineering General Conditions are included			
101	Site instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor			
	F:..... ..V:..... T:.....	Item		
	Carried Forward		R	

	Brought Forward			R
102	Black economic empowerment and training F:..... ..V:..... T:.....	Item		
103	Proprietary branded products F:..... ..V:..... T:.....	Item		
104	Testing of flat roof waterproofing for water tightness Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least 36 hours as a test to ensure the water tightness of the waterproofing and before any further construction work is carried out above the waterproofing F:..... ..V:..... T:.....	Item		
105	The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instructions after consultation with the manufacturer's authorised representative Contract instructions F:..... ..V:..... T:.....	Item		
106	Contract instructions issued on site are to be recorded in triplicate in a contract instruction book which is to be supplied and maintained on site by the contractor Labour record F:..... ..V:..... T:.....	Item		
	Carried Forward			R

	Brought Forward			R
107	At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and descriptions of tradesmen and labourers employed by him and all subcontractors on the works each day of that week Plant record F:..... ..V:..... T:.....	Item		
108	At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools used on the works each day of that week Guarantees F:..... ..V:..... T:.....	Item		
109	Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement Overtime F:..... ..V:..... T:.....	Item		
	Carried Forward			R

	Brought Forward			R
110	Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer Co-operation of contractor for cost management F:..... ..V:..... T:.....	Item		
111	It is specifically agreed that the contractor accepts the obligation of assisting the professional consultants 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 final building cost does not exceed the budget. The quantity surveyor undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedures to be implemented and the contractor will attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures in regard to all subcontractors Occupational Health and Safety Specification F:..... ..V:..... T:.....	Item		
	Any Principal Contractor entering into a contract with The Developer must achieve an acceptable level of Occupational Health and Safety performance. Refer to "Project Specification" and "Safety, Health and Environmental Evaluation Questionnaire" The contractor to comply with all provisions of the above and to be enforced on all selected and or other sub-contractors as no claim afterwards will be entertained **SUMMARY OF CATEGORIES** Category : Fixed ..... Category : Value			
	Carried Forward			R

Brought Forward		R	
Category : Time			
Carried Forward		R	

	Brought Forward		R	
	Carried to Final Summary		R	

Section No. 1
Preliminaries and General
Bill No. 1
Preliminaries and General

Item No		Quantity	Rate	Amount

SECTION NO. 2

BILL NO. 1

EARTHWORKS

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

Nature of ground

A geotechnical design report has been carried out on **site** by the Geotechnical Engineer. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" as described in the aforesaid report and, where conditions of a more difficult character are indicated, these are separately measured.

Proof drilling has been carried out in specific areas on **site** by the Geotechnical Engineer.

The Contractor is notified that works are to be priced in conjunction with the geotechnical report. The onus remains on the contractor to request the documents

Carried Forward R

Brought Forward			R
Control Unless otherwise described, all construction testing, tolerances and materials are to be in accordance with SANS 1200, SANS 10400, the Occupational Health & Safety Act (Act No. 85 of 1993) and the defined Project Specifications & Notes included in the tender document. All earthworks shall be in accordance with the latest SANS 2001-BE1:2008 and SANS 10400-G specifications. **Classification of excavated materials for measurement and valuation purposes** If the **contractor** considers that any of the materials to be excavated are more difficult in nature than excavations in "earth", he shall immediately notify the **principal agent** and quantity surveyor **agent** in writing and agreement shall be reached, in writing, between the aforesaid parties as to the classification of such aforesaid materials and the extent thereof. If the **contractor** fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly.			
Carried Forward			R

Brought Forward R

Method of Classifying.

The **contractor** may, with the prior written permission of the **principal agent** and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but the **contractor**'s chosen method of excavation shall not determine the classification of the materials excavated. The engineer **agent**, in collaboration with the **contractor**, will decide on the classification of the materials excavated. The classification will be based on inspection of the material to be excavated. All equipment shall be in good mechanical condition. "Efficiently", as used herein shall be deemed to mean, "in a manner that can reasonably be expected of a contractor, having regard to the production achieved".
In the event of a disagreement between the **contractor** and the engineer **agent**, it shall be the responsibility of the **contractor**, if so required, to make available at his own expense such mechanical equipment as is required in order to assess the reasonable removeability, or otherwise, of the material.The engineer **agent's** decision on the classification shall then, subject to the relevant provisions of the **contract**, be binding.

Classes of Excavation. The excavation of material will be classified as follows, for purposes of measurement and valuation:-

(a) Soft Excavation.
"Soft excavation" shall be excavation in all materials other than in "Hard Rock", which is described hereinafter.

Extract from the model preambles for trades 2008 C.4 Excavations, C.4.1 Classification of excavated material states:
'Soft rock shall mean hard material, the removal of which warrants the use of pneumatic tools and includes hard shale, ferricite, compact ouklip and material of similar hardness"

Carried Forward R

Brought Forward R

Hard rock excavation, including boulder excavation

"Hard rock excavation" shall be excavation in material that cannot, before removal, be efficiently ripped by a bulldozer of mass approximately 35-metric tons, fitted with a single-tine ripper suitable for heavy ripping and flywheel power approximately 220kW.
NOTE: Such excavation generally includes material such as formations of unweathered rock that can be removed only after blasting, or wedging and splitting.

All boulder excavation shall be deemed to be "hard rock" and shall be measured and evaluated as such, unless otherwise stated.

Permissable tolerances in respect of excavations

1.0 Permissable deviation (PD) for terraces and excavation faces are as follows:-

1.0 Away from excavation face +40mm.

2.0 Towards excavation face +- 0mm.

3.0 Final excavation floor level +0mm and -50mm.

Descriptions of excavations shall be deemed to include forming excavated surfaces to falls, contours, trimming sides and stepping, levelling and ramming bottoms.

Risk of collapse of sides of excavations

The **contractor** shall be responsible for the risk of collapse of all excavated faces.
Where excavations do not exceed 1.5m in height, the nature of the precautions to be taken shall be entirely at the **contractor**'s discretion. The **contractor** shall either temporarily support the excavated faces, or carry the risk of collapse of such faces with all its implications.
Where excavations exceed 1.5m in height, the **contractor** shall maintain all excavated faces and comply with Government Regulations.

Carried Forward R

Brought Forward R

Keeping excavations free of water and subterranean water

The **contractor** shall protect the excavations from the ingress of water. Any water which occurs in the excavations, whether as a result of seepage, rain, or other causes, shall immediately be removed by the **contractor** by baling, pumping, or other approved means.

Storm water management to be carried out in accordance with SANS 1936 and the special requirements of the D4 reviewer.

Absolutely no ponding of water on site shall be allowed during or after construction.

Carting away of excavated materials

Descriptions of carting away excavated material, and/or demolished material, shall be deemed to include loading excavated material, and/or demolished material, onto trucks directly from the excavations, or from stock piles situated on and off the building **site**.
The **contractor** is hereby deemed to be responsible for the choice of dumping site. If a dump-site is foreclosed, or unavailable, for whatever reason, it remains the **contractor**'s responsibility to timeously obtain a suitable replacement dump-site without additional cost to the **employer**.

Filling

Prices for filling and backfilling shall include for all selection and any necessary multiple handling of material between stockpiles on & off-site to the area of fill.

Carried Forward R

	Brought Forward			R	
	Density Tests on Earth and other Filling Materials				
	The **contractor** will not be entitled to claim for the cost of density, and/or any other, tests that are required in terms of the **specification** of earth and other materials required for "filling" works, where such tests are a routine requirement contained in the description associated with such parts of the **works**, and where the costs of such tests are therefore an integral cost of the execution of such parts of the **works**. The **contractor** will only be reimbursed for the "additional" cost of density, and/or any other, tests that are specifically prescribed in terms of a **contract instruction**, and which tests represent additional undertaking by the **contractor** to that required by the aforesaid **specification**.				
	SITE CLEARANCE, ETC.				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	75		
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	75		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
3	Reduced levels under floors	m3	15		
4	Reduced levels under aprons	m3	9		
5	Trenches	m3	18		
6	Holes	m3	37		
	Extra over trench and hole excavations in earth for excavation:				
7	Soft rock	m3	6		
8	Hard rock	m3	3		
	Carried Forward			R	

	Brought Forward			R	
	Extra over all excavations for carting away				
9	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	63		
	Risk of collapse of excavations				
10	Sides of trench and hole excavations not exceeding 1,5m deep	m2	105		
	Keeping excavations free of water				
11	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
12	Backfilling to trenches, holes, etc	m3	17		
	Approved G5 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density				
13	Under floors, steps, paving etc.	m3	36		
14	Under floors to create platforms.	m3	18		
	Compaction of surfaces				
15	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	51		
16	Compaction of ground surface to pits etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	20		
	Carried Forward			R	

				R
	Brought Forward			
17	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	30	
18	Compaction of ground surface to trenches etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	12	
	Prescribed density tests on filling			
19	"Modified AASHTO Density" test	No	4	
	SOIL POISONING			
	Soil insecticide in accordance with SANS 5859:			
20	Soil insecticide (protection against termites) applied as specified under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming filling in furrows and ramming	m2	51	
21	To bottom of concrete aprons	m2	30	
22	To bottoms and sides of trenches etc	m2	71	
23	To bottoms and sides of pit etc	m2	65	
	Carried Forward to Summary of Section No. 2			R

Section No. 2
MD3+3UR
Bill No. 1
Earthworks

Item No		Quantity	Rate	Amount

SECTION NO. 2

BILL NO. 2

CONCRETE, FORMWORK AND REINFORCEMENT

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the **principal agent**. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the **principal agent**. (Test cubes are measured separately)

Breeze concrete

Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal, or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16.5mm ring from a minimum which fails to pass a 4.75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.

Carried Forward R

	Brought Forward			R	
	"Foamcement" lightweight concrete				
	"Foamcement" lightweight concrete is to have a density of 600kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc., shall be 50mm.				
	Formwork				
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.				
	Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 265mm thick unless otherwise described.				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer **agent** for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks".				
	UNREINFORCED CONCRETE,etc.				
	25MPa/19mm concrete				
1	Surface blinding under footings and bases	m3	1		
	REINFORCED CONCRETE				
	25MPa/19mm concrete				
2	Strip footings	m3	4		
3	Surface beds cast in panels on waterproofing.	m3	5		
	Carried Forward			R	

				R	
	Brought Forward				
4	Ditto, but surface bed in pit.	m3	3		
5	Aprons cast in panels	m3	5		
6	Slabs cast on permanent formwork	m3	3		
7	Thickening down apron on edge 150mm deep x 430mm wide.	m	50		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	30MPa/19mm concrete				
	CONCRETE SUNDRIES				
	TEST BLOCKS				
8	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	6		
	Finishing top surfaces of concrete smooth with a wood float				
9	Aprons and pavings to falls.	m2	10		
	Finishing top surfaces of concrete smooth with a steel trowel.				
10	Surface beds, slabs, etc.	m2	87		
	FORMWORK				
	Rough formwork to sides				
11	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	80		
	MOVEMENT JOINTS etc.				
	Expansion joints with 10mm softboard between vertical concrete and brick surfaces:				
12	Not exceeding 300mm high to edges of surface beds	m	59		
	Carried Forward			R	

	Brought Forward			R	
13	Saw cut joints in top of concrete (Provisional)	m	3		
	Permanent formwork to soffits				
14	Slabs propped up not exceeding 1,5m high.	m2	16		
15	Leave or form 500mm diameter opening in top of floor slab	No	4		
	REINFORCEMENT				
	Mild steel reinforcement to structural concrete work:				
	High tensile steel reinforcement to structural concrete work:				
	Fabric reinforcement:				
16	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	109		
	Carried Forward to Summary of Section No. 2			R	

Section No. 2
MD3+3UR
Bill No. 2
Concrete, Formwork and Reinforcement

Item No		Quantity	Rate	Amount

SECTION NO. 2

BILL NO. 3

MASONRY

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

BRICKWORK

Sizes in descriptions

All masonry walling shall be constructed according to the specifications & details of SANS 2001 - CM:1 2007, SANS 10164 and SANS 10400

Masonry units shall comply with the following specifications:

SANS 227: burnt clay masonry units
SANS 285: calcium silicate masonry units
SANS 1215: concrete masonry units

Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick

Carried Forward R

	Brought Forward			R	
	Hollow walls etc				
	Descriptions of hollow walls shall be deemed to include wall ties and leaving **every fifth perpend** of the bottom course of the external skin open as a weep hole				
	Reinforced brick lintels				
	Lintels shall bear at least **160mm** onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous				
	Face bricks				
	Bricks shall be ordered timeously to obtain uniformity in size and colour				
	Pointing				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	SAMPLES				
	Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site				
	FOUNDATIONS				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar				
1	One brick walls	m2	16		
2	One brick walls in pit.	m2	38		
3	Half brick corbelling in pit.	m2	7		
	FACE BRICKWORK				
	Carried Forward			R	

				R	
	Brought Forward				
	Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:				
4	Extra over brickwork for face brickwork in foundation	m2	32		
	Brickwork reinforcement				
5	150mm Wide reinforcement built in horizontally	m	709		
	SUPERSTRUCTURE				
	FACE BRICKWORK				
	Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:				
6	Half brick face brick walls pointed both sides	m2	21		
7	One brick face brick walls pointed both sides	m2	86		
8	Face brickwork in beamfilling	m2	9		
9	Fair raking and cutting	m	32		
	Brick-on-edge header course copings, sills, etc. of (purchase price R 5 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces:				
10	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 11 Omm soffit	m	21		
11	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	13		
12	Fair raking cutting and fitting around pipe not exceeding 100mm diameter.	No	7		
	BRICKWORK SUNDRIES				
	Joint forming material in movement joints:				
13	12mm Fibre board built in vertically through brick walls	m	34		
	Carried Forward			R	

				R
	Brought Forward			
	2,5mm Brickwork reinforcement			
14	75mm Wide reinforcement built in horizontally	m	84	
15	150mm Wide reinforcement built in horizontally	m	339	
	Galvanised wire ties etc.			
16	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	88	
	Prestressed fabricated concrete lintels, including necessary temporary supports:			
17	110 x 75mm Double Lintels in lengths exceeding 4.5m but not exceeding 6m long	m	11	
	Ventilation Bricks			
18	set of two 22x 155mm high terra cotta clay vermin proof air brick	No	20	
	Carried Forward to Summary of Section No. 2			R

Section No. 2
MD3+3UR
Bill No. 3
Masonry

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 4				
	WATERPROOFING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	DAMP-PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron embossed damp proof course				
1	In walls	m2	18		
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:				
2	Under surface beds	m2	41		
	JOINT SEALANTS etc.				
	Two- part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
3	6 x 10mm In saw cut joints in floors	m	3		
	White silicone sealing compound including backing cord, bond breaker, primer, etc.				
4	**6 x 10mm In expansion joints in floors, including raking out expansion joint filler as necessary.**	m	34		
	Carried Forward			R	

	Brought Forward			R	
	"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:				
5	Around steel windows and door frames.	m	54		
	Carried Forward to Summary of Section No. 2			R	

Section No. 2
MD3+3UR
Bill No. 4
Waterproofing

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 5				
	ROOF COVERINGS				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	PROFILED METAL SHEETING AND ACCESSORIES				
	0,58mm "Klip-Lok" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:				
1	Roof coverings with pitch not exceeding 25 degrees	m2	40		
	ROOF AND WALL INSULATION				
	"Sisalation 405" or similar approved residential grade aluminium foil based insulation:				
2	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	40		
	RAINWATER DISPOSAL				
	Carried Forward			R	

	Brought Forward			R	
	Aluzink seamless metal gutters:				
3	100 x 100 x 0.6mm standard rainwater gutters	m	9		
4	Extra over eaves gutter for closed ends	No	2		
5	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2		
6	100 Diameter galvanised rainwater downpipes	m	5		
7	Extra over rainwater pipe for eaves offset.	No	2		
8	Ditto,for shoe.	No	2		
	Carried Forward to Summary of Section No. 2			R	

Section No. 2
MD3+3UR
Bill No. 5
Roof Coverings

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 6				
	CARPENTRY AND JOINERY				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	ROOFS, etc.				
	Sawn softwood grade 5:				
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	44		
2	76 x 38mm Wall plates	m	30		
3	50 x 76mm Purlins	m	44		
	Sundries				
4	Two coats creosote on sawn timbers	m2	31		
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	54		
6	Hurricane Clips	No	108		
	EAVES, VERGES, etc.				
	Carried Forward			R	

				R
	Brought Forward			
	Medium density plain fibre-cement fascias and barge boards:			
7	19 x 235mm Fascias and barge boards, including aluminium H-profile jointing strips	m	26	
	DOORS etc.			
	Wrought meranti doors hung to steel frames:			
8	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	2	
9	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	3	
	Carried Forward to Summary of Section No. 2			R

Section No. 2
MD3+3UR
Bill No. 6
Carpentry and Joinery

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 7				
	IRONMONGERY				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	CATCHES, CABIN HOOKS, etc.				
	"Approved"				
1	150mm chrome cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	5		
	LOCKS				
	"Union Assa Abloy" or similar approved:				
2	"Code 630" padlock	No	2		
3	Three lever mortice lockset	No	4		
4	"Ref. CZ80941SC" Indicator bolt	No	3		
	HANDLES				
	"Union Assa Abloy" or similar approved:				
5	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres	No	5		
	Carried Forward			R	

	Brought Forward			R	
	LETTERS, NAMEPLATES, etc.				
	"Dorma" or similar approved				
6	DSS-130 Engraved "Male", "Female" or "Disabled" information sign	No	2		
	SUNDRIES				
7	25mm Diameter wall mounted door stop plugged	No	5		
	BATHROOMFITTINGS				
	Kimberley-Clark or Similar:				
8	Kimberly-Clark SQ2 code 405607B white lockable toilet roll hold	No	4		
	"Franke"or Equally approved				
9	"Franke" CHRH41 stainless steel mirror	No	2		
	"Vaal Paragon"				
10	32mm Type 9 back grab rail 800mm long plugged	No	1		
11	32mm Type 8 side grab rail 900mm girth plugged	No	1		
	Sundries				
	Carried Forward to Summary of Section No. 2			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 8				
	METALWORK				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	STEEL GATES, SCREENS, etc.				
	Welded screens and gates, to brickwalls:				
1	Single gate and frame size to fit standard door, size 813 x 2032mm high	No	2		
	PRESSED STEEL DOOR FRAMES				
	1,6mm Double rebated frames suitable for half brick walls:				
2	Frame for door 813 x 2032mm high	No	3		
	1,6mm Double rebated frames suitable for one brick walls:				
3	Frame for door 813 x 2032mm high	No	2		
	STEEL WINDOWS, DOORS, etc.				
	Standard windows				
4	Window type NE1, 533 x 654mm high with burglar bars	No	6		
5	Window type NE 7,1022 x 654mm high with burglar bars	No	3		
	Carried Forward			R	

	Brought Forward			R	
	Welded balustrading to mild steel				
6	Raking balustrading to staircase or ramp of 80 x 40 x 2mm hollow section continuous top rail, 40 x 10mm flat section continuous bottom rail, 12mm square bar section intermediate balusters at 125mm centres between to and bottom rails and 38 x 38 x 2mm hollow section post at approximately 1200mm centres each with 120 x 50 x 8mm flat section base plate twice holed for bolts (bolts included)	m	11		
	Carried Forward to Summary of Section No. 2			R	

Section No. 2
MD3+3UR
Bill No. 8
Metalwork

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 9				
	PLASTERING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	CEMENT SCREEDS TO CONCRETE.				
	Screeds to steel trowelled on concrete:				
1	30mm Thick to floors	m2	67		
	Cement plaster on brickwork:				
2	On pit walls	m2	97		
	FLOOR AND WALL SEALERS				
	Minimum two coats approved epoxy coat				
3	On screed	m2	67		
4	On walls in pit	m2	97		
	Carried Forward to Summary of Section No. 2			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 10				
	PLUMBING AND DRAINAGE				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	SANITARY FITTINGS				
	Supply and Install "Enviroloo systems" or similar approved				
1	"Enviro Loo System 1040 Standard" installed strictly in accordance with manufacturers instructions, unit comprising of top unit and two x louvred inlets (PL.1), drying plate (PL.2), two x air inlets (PL.3), toilet pan, seat and lid (PL.4), 3500mm long outlet vent pipe (PL.5), ventilation extraction unit (PL.6) fixed to wall with vent wall bracket (PL.7), 1 bag mounting screws and organic starter, enzyme and toilet cleaner (PL.8) including all necessary inter connector piping between multiple tanks, emergency outlet piping, etc.	No	4		
2	2 "Enviro Loo 4- Bowl Urinal Evaporative Tank System " installed strictly in accordance with manufacturers instructions, unit comprising of urinal evaporative tank, urinal bowl (3 Bowls), including brackets, 3500mm long outlet vent pipe, ventilation extraction unit fixed to wall with vent wall bracket, 1 bag mounting screws and organic starter, enzyme and toilet cleaner including all necessary piping, traps, etc.	No	1		
	Carried Forward			R	

	Brought Forward			R	
	Supply and Install Precast concrete wash trough:				
3	Standard SABS approved Pre-Cast Concrete Double Wash Trough, 1080 x 650 x 850mm high with support legs fitted, including all necessary pipework including soak away approximately 10 meters away from the wash trough, sized at 1000 x 1000 x 1000mm covered with "bidim" complete etc.	No	2		
	BUDGETARY ALLOWANCES				
	INSPECTION BY "ENVIRO LOO"/SUPPLIER:				
4	Allow an amount of R 8000.00 (Eight Thousand Rand Only) for the two site visits to be made by the "enviroo loo" suppliers to assist/support the contractor in the installation ot the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed correctly at which time a Certificate of Compliance should be issued between Mvula Trust/Limpopo Department of Education and Enviro Loo Options Limpopo.		Item		
5	Profit and attendance for the above		Item		
	TAPS, VALVES, ETC				
	"Cobra Watertech"				
6	19mm chrome plated push button taps to wash trough	No	2		
	Carried Forward to Summary of Section No. 2			R	

Section No. 2
MD3+3UR
Bill No. 10
Plumbing and Drainage

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 11				
	GLAZING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	GLAZING TO STEEL WITH PUTTY				
	6.38 mm Obscure safety glass:				
1	Panes not exceeding 0,1m2	m2	4		
	Carried Forward to Summary of Section No. 2			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 2				
	BILL NO. 12				
	PAINTING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	ON FIBRE-CEMENT				
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use, on:				
1	On fascias and barge boards.	m2	11		
	ON METAL				
	One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel:				
2	On door frames	m2	11		
3	On windows with burglar bars	m2	8		
4	On balustrades	m2	33		
5	On gates (measured over the full flat area both sides)	m2	8		
	Carried Forward			R	

	Brought Forward			R
	Spot priming defects in prime surface with zinc chromate primer, one universal undercoat and two golden brown gloss enamel on steel			
6	On gutters and down pipes	m	14	
	ON WOOD			
	Three coats matt varnish			
7	On doors	m2	19	
	Carried Forward to Summary of Section No. 2			R

Section No. 2
MD3+3UR
Bill No. 12
Paintwork

SECTION SUMMARY - MD3+3UR

Bill No		Page No	Amount
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Carried to Final Summary R

Section No. 2
MD3+3UR

Item No		Quantity	Rate	Amount

SECTION NO. 3

BILL NO. 1

EARTHWORKS

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

Nature of ground

A geotechnical design report has been carried out on **site** by the Geotechnical Engineer. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" as described in the aforesaid report and, where conditions of a more difficult character are indicated, these are separately measured.

Proof drilling has been carried out in specific areas on **site** by the Geotechnical Engineer.

The Contractor is notified that works are to be priced in conjunction with the geotechnical report. The onus remains on the contractor to request the documents

Carried Forward R

Brought Forward			R
Control Unless otherwise described, all construction testing, tolerances and materials are to be in accordance with SANS 1200, SANS 10400, the Occupational Health & Safety Act (Act No. 85 of 1993) and the defined Project Specifications & Notes included in the tender document. All earthworks shall be in accordance with the latest SANS 2001-BE1:2008 and SANS 10400-G specifications. **Classification of excavated materials for measurement and valuation purposes** If the **contractor** considers that any of the materials to be excavated are more difficult in nature than excavations in "earth", he shall immediately notify the **principal agent** and quantity surveyor **agent** in writing and agreement shall be reached, in writing, between the aforesaid parties as to the classification of such aforesaid materials and the extent thereof. If the **contractor** fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly.			
Carried Forward			R

Brought Forward R

Method of Classifying.

The **contractor** may, with the prior written permission of the **principal agent** and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but the **contractor**'s chosen method of excavation shall not determine the classification of the materials excavated. The engineer **agent**, in collaboration with the **contractor**, will decide on the classification of the materials excavated. The classification will be based on inspection of the material to be excavated. All equipment shall be in good mechanical condition. "Efficiently", as used herein shall be deemed to mean, "in a manner that can reasonably be expected of a contractor, having regard to the production achieved".
In the event of a disagreement between the **contractor** and the engineer **agent**, it shall be the responsibility of the **contractor**, if so required, to make available at his own expense such mechanical equipment as is required in order to assess the reasonable removeability, or otherwise, of the material.The engineer **agent's** decision on the classification shall then, subject to the relevant provisions of the **contract**, be binding.

Classes of Excavation. The excavation of material will be classified as follows, for purposes of measurement and valuation:-

(a) Soft Excavation.
"Soft excavation" shall be excavation in all materials other than in "Hard Rock", which is described hereinafter.

Extract from the model preambles for trades 2008 C.4 Excavations, C.4.1 Classification of excavated material states:
'Soft rock shall mean hard material, the removal of which warrants the use of pneumatic tools and includes hard shale, ferricite, compact ouklip and material of similar hardness"

Carried Forward R

Brought Forward R

Hard rock excavation, including boulder excavation

"Hard rock excavation" shall be excavation in material that cannot, before removal, be efficiently ripped by a bulldozer of mass approximately 35-metric tons, fitted with a single-tine ripper suitable for heavy ripping and flywheel power approximately 220kW.
NOTE: Such excavation generally includes material such as formations of unweathered rock that can be removed only after blasting, or wedging and splitting.

All boulder excavation shall be deemed to be "hard rock" and shall be measured and evaluated as such, unless otherwise stated.

Permissable tolerances in respect of excavations

1.0 Permissable deviation (PD) for terraces and excavation faces are as follows:-

1.0 Away from excavation face +40mm.

2.0 Towards excavation face +- 0mm.

3.0 Final excavation floor level +0mm and -50mm.

Descriptions of excavations shall be deemed to include forming excavated surfaces to falls, contours, trimming sides and stepping, levelling and ramming bottoms.

Risk of collapse of sides of excavations

The **contractor** shall be responsible for the risk of collapse of all excavated faces.
Where excavations do not exceed 1.5m in height, the nature of the precautions to be taken shall be entirely at the **contractor**'s discretion. The **contractor** shall either temporarily support the excavated faces, or carry the risk of collapse of such faces with all its implications.
Where excavations exceed 1.5m in height, the **contractor** shall maintain all excavated faces and comply with Government Regulations.

Carried Forward R

Brought Forward R

Keeping excavations free of water and subterranean water

The **contractor** shall protect the excavations from the ingress of water. Any water which occurs in the excavations, whether as a result of seepage, rain, or other causes, shall immediately be removed by the **contractor** by baling, pumping, or other approved means.

Storm water management to be carried out in accordance with SANS 1936 and the special requirements of the D4 reviewer.

Absolutely no ponding of water on site shall be allowed during or after construction.

Carting away of excavated materials

Descriptions of carting away excavated material, and/or demolished material, shall be deemed to include loading excavated material, and/or demolished material, onto trucks directly from the excavations, or from stock piles situated on and off the building **site**.
The **contractor** is hereby deemed to be responsible for the choice of dumping site. If a dump-site is foreclosed, or unavailable, for whatever reason, it remains the **contractor**'s responsibility to timeously obtain a suitable replacement dump-site without additional cost to the **employer**.

Filling

Prices for filling and backfilling shall include for all selection and any necessary multiple handling of material between stockpiles on & off-site to the area of fill.

Carried Forward R

	Brought Forward			R	
	Density Tests on Earth and other Filling Materials				
	The **contractor** will not be entitled to claim for the cost of density, and/or any other, tests that are required in terms of the **specification** of earth and other materials required for "filling" works, where such tests are a routine requirement contained in the description associated with such parts of the **works**, and where the costs of such tests are therefore an integral cost of the execution of such parts of the **works**. The **contractor** will only be reimbursed for the "additional" cost of density, and/or any other, tests that are specifically prescribed in terms of a **contract instruction**, and which tests represent additional undertaking by the **contractor** to that required by the aforesaid **specification**.				
	SITE CLEARANCE, ETC.				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	85		
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	85		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
3	Reduced levels under floors	m3	18		
4	Reduced levels under aprons	m3	11		
5	Trenches	m3	18		
6	Holes	m3	50		
	Extra over trench and hole excavations in earth for excavation:				
7	Soft rock	m3	7		
8	Hard rock	m3	3		
	Carried Forward			R	

	Brought Forward			R	
	Extra over all excavations for carting away				
9	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	79		
	Risk of collapse of excavations				
10	Sides of trench and hole excavations not exceeding 1,5m deep	m2	108		
	Keeping excavations free of water				
11	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
12	Backfilling to trenches, holes, etc	m3	17		
	Approved G5 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density				
13	Under floors, steps, paving etc.	m3	41		
14	Under floors to create platforms.	m3	25		
	Compaction of surfaces				
15	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	60		
16	Compaction of ground surface to pits etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	24		
	Carried Forward			R	

				R
	Brought Forward			
17	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	35	
18	Compaction of ground surface to trenches etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	12	
	Prescribed density tests on filling			
19	"Modified AASHTO Density" test	No	5	
	SOIL POISONING			
	Soil insecticide in accordance with SANS 5859:			
20	Soil insecticide (protection against termites) applied as specified under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming filling in furrows and ramming	m2	60	
21	To bottom of concrete aprons	m2	35	
22	To bottoms and sides of trenches etc	m2	71	
23	To bottoms and sides of pit etc	m2	72	
	Carried Forward to Summary of Section No. 3			R

Section No. 3
FD6
Bill No. 1
Earthworks

Item No		Quantity	Rate	Amount

SECTION NO. 3

BILL NO. 2

CONCRETE, FORMWORK AND REINFORCEMENT

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the **principal agent**. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the **principal agent**. (Test cubes are measured separately)

Breeze concrete

Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal, or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16.5mm ring from a minimum which fails to pass a 4.75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.

Carried Forward R

	Brought Forward			R	
	"Foamcement" lightweight concrete				
	"Foamcement" lightweight concrete is to have a density of 600kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc., shall be 50mm.				
	Formwork				
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.				
	Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 265mm thick unless otherwise described.				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer **agent** for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks".				
	UNREINFORCED CONCRETE,etc.				
	25MPa/19mm concrete				
1	Surface blinding under footings and bases	m3	1		
	REINFORCED CONCRETE				
	25MPa/19mm concrete				
2	Strip footings	m3	4		
3	Surface beds cast in panels on waterproofing.	m3	6		
	Carried Forward			R	

				R	
	Brought Forward				
4	Ditto, but surface bed in pit.	m3	4		
5	Aprons cast in panels	m3	6		
6	Slabs cast on permanent formwork	m3	3		
7	Thickening down apron on edge 150mm deep x 430mm wide.	m	60		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	30MPa/19mm concrete				
	CONCRETE SUNDRIES				
	TEST BLOCKS				
8	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	7		
	Finishing top surfaces of concrete smooth with a wood float				
9	Aprons and pavings to falls.	m2	10		
	Finishing top surfaces of concrete smooth with a steel trowel.				
10	Surface beds, slabs, etc.	m2	105		
	FORMWORK				
	Rough formwork to sides				
11	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	90		
	MOVEMENT JOINTS etc.				
	Expansion joints with 10mm softboard between vertical concrete and brick surfaces:				
12	Not exceeding 300mm high to edges of surface beds	m	79		
	Carried Forward			R	

	Brought Forward			R	
13	Saw cut joints in top of concrete (Provisional)	m	4		
	Permanent formwork to soffits				
14	Slabs propped up not exceeding 1,5m high.	m2	20		
15	Leave or form 500mm diameter opening in top of floor slab	No	7		
	REINFORCEMENT				
	Mild steel reinforcement to structural concrete work:				
	High tensile steel reinforcement to structural concrete work:				
	Fabric reinforcement:				
16	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	127		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
FD6
Bill No. 2
Concrete, Formwork and Reinforcement

Item No		Quantity	Rate	Amount

SECTION NO. 3

BILL NO. 3

MASONRY

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

BRICKWORK

Sizes in descriptions

All masonry walling shall be constructed according to the specifications & details of SANS 2001 - CM:1 2007, SANS 10164 and SANS 10400

Masonry units shall comply with the following specifications:

SANS 227: burnt clay masonry units
SANS 285: calcium silicate masonry units
SANS 1215: concrete masonry units

Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick

Carried Forward R

	Brought Forward			R	
	Hollow walls etc Descriptions of hollow walls shall be deemed to include wall ties and leaving **every fifth perpend** of the bottom course of the external skin open as a weep hole				
	Reinforced brick lintels Lintels shall bear at least **160mm** onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous				
	Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour				
	Pointing Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	SAMPLES Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site				
	FOUNDATIONS				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar				
1	One brick walls	m2	21		
2	One brick walls in pit.	m2	60		
3	Half brick corbelling in pit.	m2	10		
	FACE BRICKWORK				
	Carried Forward			R	

				R	
	Brought Forward				
	Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:				
4	Extra over brickwork for face brickwork in foundation	m2	43		
	Brickwork reinforcement				
5	150mm Wide reinforcement built in horizontally	m	1,072		
	SUPERSTRUCTURE				
	FACE BRICKWORK				
	Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:				
6	Half brick face brick walls pointed both sides	m2	38		
7	One brick face brick walls pointed both sides	m2	100		
8	Face brickwork in beamfilling	m2	11		
9	Fair raking and cutting	m	37		
	Brick-on-edge header course copings, sills, etc. of (purchase price R 5 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces:				
10	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 11 Omm soffit	m	28		
11	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	15		
12	Fair raking cutting and fitting around pipe not exceeding 100mm diameter.	No	7		
	BRICKWORK SUNDRIES				
	Joint forming material in movement joints:				
13	12mm Fibre board built in vertically through brick walls	m	39		
	Carried Forward			R	

				R
	Brought Forward			
	2,5mm Brickwork reinforcement			
14	75mm Wide reinforcement built in horizontally	m	149	
15	150mm Wide reinforcement built in horizontally	m	392	
	Galvanised wire ties etc.			
16	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	95	
	Prestressed fabricated concrete lintels, including necessary temporary supports:			
17	110 x 75mm Double Lintels in lengths exceeding 7.5m but not exceeding 9m long	m	18	
	Ventilation Bricks			
18	set of two 22x 155mm high terra cotta clay vermin proof air brick	No	20	
	Carried Forward to Summary of Section No. 3			R

Section No. 3
FD6
Bill No. 3
Masonry

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 4				
	WATERPROOFING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	DAMP-PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron embossed damp proof course				
1	In walls	m2	23		
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:				
2	Under surface beds	m2	50		
	JOINT SEALANTS etc.				
	Two- part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
3	6 x 10mm In saw cut joints in floors	m	4		
	White silicone sealing compound including backing cord, bond breaker, primer, etc.				
4	**6 x 10mm In expansion joints in floors, including raking out expansion joint filler as necessary.**	m	39		
	Carried Forward			R	

	Brought Forward			R	
	"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:				
5	Around steel windows and door frames.	m	78		
	Carried Forward to Summary of Section No. 3			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 5				
	ROOF COVERINGS				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	PROFILED METAL SHEETING AND ACCESSORIES				
	0,58mm "Klip-Lok" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:				
1	Roof coverings with pitch not exceeding 25 degrees	m2	45		
	ROOF AND WALL INSULATION				
	"Sisalation 405" or similar approved residential grade aluminium foil based insulation:				
2	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	45		
	RAINWATER DISPOSAL				
	Carried Forward			R	

	Brought Forward			R	
	<u>Aluzink seamless metal gutters:</u>				
3	100 x 100 x 0.6mm standard rainwater gutters	m	9		
4	Extra over eaves gutter for closed ends	No	2		
5	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2		
6	100 Diameter galvanised rainwater downpipes	m	5		
7	Extra over rainwater pipe for eaves offset.	No	2		
8	Ditto,for shoe.	No	2		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
FD6
Bill No. 5
Roof Coverings

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 6				
	CARPENTRY AND JOINERY				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	ROOFS, etc.				
	Sawn softwood grade 5:				
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	50		
2	76 x 38mm Wall plates	m	35		
3	50 x 76mm Purlins	m	50		
	Sundries				
4	Two coats creosote on sawn timbers	m2	35		
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	66		
6	Hurricane Clips	No	132		
	EAVES, VERGES, etc.				
	Carried Forward			R	

				R
	Brought Forward			
	Medium density plain fibre-cement fascias and barge boards:			
7	19 x 235mm Fascias and barge boards, including aluminium H-profile jointing strips	m	28	
	DOORS etc.			
	Wrought meranti doors hung to steel frames:			
8	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	2	
9	44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2)	No	6	
	Carried Forward to Summary of Section No. 3			R

Section No. 3
FD6
Bill No. 6
Carpentry and Joinery

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 7				
	IRONMONGERY				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	CATCHES, CABIN HOOKS, etc.				
	"Approved"				
1	150mm chrome cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	8		
	LOCKS				
	"Union Assa Abloy" or similar approved:				
2	"Code 630" padlock	No	2		
3	Three lever mortice lockset	No	4		
4	"Ref. CZ80941SC" Indicator bolt	No	6		
	HANDLES				
	"Union Assa Abloy" or similar approved:				
5	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres	No	8		
	Carried Forward			R	

	Brought Forward			R	
	LETTERS, NAMEPLATES, etc.				
	"Dorma" or similar approved				
6	DSS-130 Engraved "Male", "Female" or "Disabled" information sign	No	2		
	SUNDRIES				
7	25mm Diameter wall mounted door stop plugged	No	8		
	BATHROOMFITTINGS				
	Kimberley-Clark or Similar:				
8	Kimberly-Clark SQ2 code 405607B white lockable toilet roll hold	No	7		
	"Franke"or Equally approved				
9	"Franke" CHRH41 stainless steel mirror	No	2		
	"Vaal Paragon"				
10	32mm Type 9 back grab rail 800mm long plugged	No	1		
11	32mm Type 8 side grab rail 900mm girth plugged	No	1		
	Sundries				
	Carried Forward to Summary of Section No. 3			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 8				
	METALWORK				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	STEEL GATES, SCREENS, etc.				
	Welded screens and gates, to brickwalls:				
1	Single gate and frame size to fit standard door, size 813 x 2032mm high	No	2		
	PRESSED STEEL DOOR FRAMES				
	1,6mm Double rebated frames suitable for half brick walls:				
2	Frame for door 813 x 2032mm high	No	6		
	1,6mm Double rebated frames suitable for one brick walls:				
3	Frame for door 813 x 2032mm high	No	2		
	STEEL WINDOWS, DOORS, etc.				
	Standard windows				
4	Window type NE1, 533 x 654mm high with burglar bars	No	7		
5	Window type NE 7,1022 x 654mm high with burglar bars	No	4		
	Carried Forward			R	

	Brought Forward			R	
	Welded balustrading to mild steel				
6	Raking balustrading to staircase or ramp of 80 x 40 x 2mm hollow section continuous top rail, 40 x 10mm flat section continuous bottom rail, 12mm square bar section intermediate balusters at 125mm centres between to and bottom rails and 38 x 38 x 2mm hollow section post at approximately 1200mm centres each with 120 x 50 x 8mm flat section base plate twice holed for bolts (bolts included)	m	11		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
FD6
Bill No. 8
Metalwork

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 9				
	PLASTERING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	CEMENT SCREEDS TO CONCRETE.				
	Screeds to steel trowelled on concrete:				
1	30mm Thick to floors	m2	80		
	Cement plaster on brickwork:				
2	On pit walls	m2	154		
	FLOOR AND WALL SEALERS				
	Minimum two coats approved epoxy coat				
3	On screed	m2	80		
4	On walls in pit	m2	154		
	Carried Forward to Summary of Section No. 3			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 10				
	PLUMBING AND DRAINAGE				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	SANITARY FITTINGS				
	Supply and Install "Enviroloo systems" or similar approved				
1	"Enviro Loo System 1040 Standard" installed strictly in accordance with manufacturers instructions, unit comprising of top unit and two x louvred inlets (PL.1), drying plate (PL.2), two x air inlets (PL.3), toilet pan, seat and lid (PL.4), 3500mm long outlet vent pipe (PL.5), ventilation extraction unit (PL.6) fixed to wall with vent wall bracket (PL.7), 1 bag mounting screws and organic starter, enzyme and toilet cleaner (PL.8) including all necessary inter connector piping between multiple tanks, emergency outlet piping, etc.	No	7		
	Supply and Install Precast concrete wash trough:				
2	Standard SABS approved Pre-Cast Concrete Double Wash Trough, 1080 x 650 x 850mm high with support legs fitted, including all necessary pipework including soak away approximately 10 meters away from the wash trough, sized at 1000 x 1000 x 1000mm covered with "bidim" complete etc.	No	2		
	BUDGETARY ALLOWANCES				
	Carried Forward			R	

	Brought Forward			R	
	INSPECTION BY "ENVIRO LOO"/SUPPLIER:				
3	Allow an amount of R 8000.00 (Eight Thousand Rand Only) for the two site visits to be made by the "enviroo loo" suppliers to assist/support the contractor in the installation ot the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed correctly at which time a Certificate of Compliance should be issued between Mvula Trust/Limpopo Department of Education and Enviro Loo Options Limpopo.		Item		
4	Profit and attendance for the above		Item		
	TAPS, VALVES, ETC				
	"Cobra Watertech"				
5	19mm chrome plated push button taps to wash trough	No	2		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
FD6
Bill No. 10
Plumbing and Drainage

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 11				
	GLAZING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	GLAZING TO STEEL WITH PUTTY				
	6.38 mm Obscure safety glass:				
1	Panes not exceeding 0,1m2	m2	5		
	Carried Forward to Summary of Section No. 3			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 3				
	BILL NO. 12				
	PAINTING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	ON FIBRE-CEMENT				
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use, on:				
1	On fascias and barge boards.	m2	11		
	ON METAL				
	One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel:				
2	On door frames	m2	18		
3	On windows with burglar bars	m2	10		
4	On balustrades	m2	33		
5	On gates (measured over the full flat area both sides)	m2	8		
	Carried Forward			R	

	Brought Forward			R
	Spot priming defects in prime surface with zinc chromate primer, one universal undercoat and two golden brown gloss enamel on steel			
6	On gutters and down pipes	m	14	
	ON WOOD			
	Three coats matt varnish			
7	On doors	m2	30	
	Carried Forward to Summary of Section No. 3			R

Section No. 3
FD6
Bill No. 12
Paintwork

SECTION SUMMARY - FD6

Carried to Final Summary R

Section No. 3
FD6

Item No		Quantity	Rate	Amount

SECTION NO. 4

BILL NO. 1

EARTHWORKS

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

Nature of ground

A geotechnical design report has been carried out on **site** by the Geotechnical Engineer. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" as described in the aforesaid report and, where conditions of a more difficult character are indicated, these are separately measured.

Proof drilling has been carried out in specific areas on **site** by the Geotechnical Engineer.

The Contractor is notified that works are to be priced in conjunction with the geotechnical report. The onus remains on the contractor to request the documents

Carried Forward R

Brought Forward R

Control

Unless otherwise described, all construction testing, tolerances and materials are to be in accordance with SANS 1200, SANS 10400, the Occupational Health & Safety Act (Act No. 85 of 1993) and the defined Project Specifications & Notes included in the tender document.

All earthworks shall be in accordance with the latest SANS 2001-BE1:2008 and SANS 10400-G specifications.

Classification of excavated materials for measurement and valuation purposes

If the **contractor** considers that any of the materials to be excavated are more difficult in nature than excavations in "earth", he shall immediately notify the **principal agent** and quantity surveyor **agent** in writing and agreement shall be reached, in writing, between the aforesaid parties as to the classification of such aforesaid materials and the extent thereof. If the **contractor** fails to make such notification, the excavations shall be deemed to be in "earth" and shall be measured, and valued, accordingly.

Carried Forward R

Brought Forward R

Method of Classifying.

The **contractor** may, with the prior written permission of the **principal agent** and in terms of the conditions of contract, use any method he chooses to excavate any class of material, but the **contractor**'s chosen method of excavation shall not determine the classification of the materials excavated. The engineer **agent**, in collaboration with the **contractor**, will decide on the classification of the materials excavated. The classification will be based on inspection of the material to be excavated. All equipment shall be in good mechanical condition. "Efficiently", as used herein shall be deemed to mean, "in a manner that can reasonably be expected of a contractor, having regard to the production achieved".
In the event of a disagreement between the **contractor** and the engineer **agent**, it shall be the responsibility of the **contractor**, if so required, to make available at his own expense such mechanical equipment as is required in order to assess the reasonable removeability, or otherwise, of the material.The engineer **agent's** decision on the classification shall then, subject to the relevant provisions of the **contract**, be binding.

Classes of Excavation. The excavation of material will be classified as follows, for purposes of measurement and valuation:-

(a) Soft Excavation.
"Soft excavation" shall be excavation in all materials other than in "Hard Rock", which is described hereinafter.

Extract from the model preambles for trades 2008 C.4 Excavations, C.4.1 Classification of excavated material states:
'Soft rock shall mean hard material, the removal of which warrants the use of pneumatic tools and includes hard shale, ferricite, compact ouklip and material of similar hardness"

Carried Forward R

Brought Forward R

Hard rock excavation, including boulder excavation

"Hard rock excavation" shall be excavation in material that cannot, before removal, be efficiently ripped by a bulldozer of mass approximately 35-metric tons, fitted with a single-tine ripper suitable for heavy ripping and flywheel power approximately 220kW.
NOTE: Such excavation generally includes material such as formations of unweathered rock that can be removed only after blasting, or wedging and splitting.

All boulder excavation shall be deemed to be "hard rock" and shall be measured and evaluated as such, unless otherwise stated.

Permissable tolerances in respect of excavations

1.0 Permissable deviation (PD) for terraces and excavation faces are as follows:-

1.0 Away from excavation face +40mm.

2.0 Towards excavation face +- 0mm.

3.0 Final excavation floor level +0mm and -50mm.

Descriptions of excavations shall be deemed to include forming excavated surfaces to falls, contours, trimming sides and stepping, levelling and ramming bottoms.

Risk of collapse of sides of excavations

The **contractor** shall be responsible for the risk of collapse of all excavated faces.
Where excavations do not exceed 1.5m in height, the nature of the precautions to be taken shall be entirely at the **contractor**'s discretion. The **contractor** shall either temporarily support the excavated faces, or carry the risk of collapse of such faces with all its implications.
Where excavations exceed 1.5m in height, the **contractor** shall maintain all excavated faces and comply with Government Regulations.

Carried Forward R

Brought Forward R

Keeping excavations free of water and subterranean water

The **contractor** shall protect the excavations from the ingress of water. Any water which occurs in the excavations, whether as a result of seepage, rain, or other causes, shall immediately be removed by the **contractor** by baling, pumping, or other approved means.

Storm water management to be carried out in accordance with SANS 1936 and the special requirements of the D4 reviewer.

Absolutely no ponding of water on site shall be allowed during or after construction.

Carting away of excavated materials

Descriptions of carting away excavated material, and/or demolished material, shall be deemed to include loading excavated material, and/or demolished material, onto trucks directly from the excavations, or from stock piles situated on and off the building **site**.
The **contractor** is hereby deemed to be responsible for the choice of dumping site. If a dump-site is foreclosed, or unavailable, for whatever reason, it remains the **contractor**'s responsibility to timeously obtain a suitable replacement dump-site without additional cost to the **employer**.

Filling

Prices for filling and backfilling shall include for all selection and any necessary multiple handling of material between stockpiles on & off-site to the area of fill.

Carried Forward R

	Brought Forward			R	
	Density Tests on Earth and other Filling Materials				
	The **contractor** will not be entitled to claim for the cost of density, and/or any other, tests that are required in terms of the **specification** of earth and other materials required for "filling" works, where such tests are a routine requirement contained in the description associated with such parts of the **works**, and where the costs of such tests are therefore an integral cost of the execution of such parts of the **works**. The **contractor** will only be reimbursed for the "additional" cost of density, and/or any other, tests that are specifically prescribed in terms of a **contract instruction**, and which tests represent additional undertaking by the **contractor** to that required by the aforesaid **specification**.				
	SITE CLEARANCE, ETC.				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	35		
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	35		
	EXCAVATION, FILLING, ETC				
	Excavation in earth not exceeding 2m deep				
3	Reduced levels under floors	m3	5		
4	Reduced levels under aprons	m3	8		
5	Trenches	m3	13		
6	Holes	m3	5		
	Extra over trench and hole excavations in earth for excavation:				
7	Soft rock	m3	2		
8	Hard rock	m3	1		
	Carried Forward			R	

	Brought Forward			R	
	Extra over all excavations for carting away				
9	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	22		
	Risk of collapse of excavations				
10	Sides of trench and hole excavations not exceeding 1,5m deep	m2	55		
	Keeping excavations free of water				
11	Keeping excavations free of all water other than subterranean water		Item		
	Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
12	Backfilling to trenches, holes, etc	m3	8		
	Approved G5 filling supplied and carted by the contractor and compacted in layers not exceeding 150mm to 95% Mod AASHTO density				
13	Under floors, steps, paving etc.	m3	16		
14	Under floors to create platforms.	m3	10		
	Compaction of surfaces				
15	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	15		
16	Compaction of ground surface to pits etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	4		
	Carried Forward			R	

				R
	Brought Forward			
17	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	25	
18	Compaction of ground surface to trenches etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	9	
	Prescribed density tests on filling			
19	"Modified AASHTO Density" test	No	2	
	SOIL POISONING			
	Soil insecticide in accordance with SANS 5859:			
20	Soil insecticide (protection against termites) applied as specified under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming filling in furrows and ramming	m2	15	
21	To bottom of concrete aprons	m2	25	
22	To bottoms and sides of trenches etc	m2	53	
23	To bottoms and sides of pit etc	m2	14	
	Carried Forward to Summary of Section No. 4			R

Section No. 4
4UR
Bill No. 1
Earthworks

Item No		Quantity	Rate	Amount

SECTION NO. 4

BILL NO. 2

CONCRETE, FORMWORK AND REINFORCEMENT

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the **principal agent**. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the **principal agent**. (Test cubes are measured separately)

Breeze concrete

Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal, or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16.5mm ring from a minimum which fails to pass a 4.75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.

Carried Forward R

	Brought Forward			R	
	"Foamcement" lightweight concrete				
	"Foamcement" lightweight concrete is to have a density of 600kg/m3 for the top 50mm and 400kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc., shall be 50mm.				
	Formwork				
	Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.				
	Formwork to soffits of solid slabs, etc shall be deemed to be to slabs not exceeding 265mm thick unless otherwise described.				
	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer **agent** for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks".				
	UNREINFORCED CONCRETE,etc.				
	25MPa/19mm concrete				
1	Surface blinding under footings and bases	m3	0.5		
	REINFORCED CONCRETE				
	25MPa/19mm concrete				
2	Strip footings	m3	3		
3	Surface beds cast in panels on waterproofing.	m3	2		
	Carried Forward			R	

	Brought Forward			R	
4	Ditto, but surface bed in pit.	m3	1		
5	Aprons cast in panels	m3	4		
6	Slabs cast on permanent formwork	m3	1		
7	Thickening down apron on edge 150mm deep x 430mm wide.	m	35		
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	30MPa/19mm concrete				
	CONCRETE SUNDRIES				
	TEST BLOCKS				
8	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	3		
	Finishing top surfaces of concrete smooth with a wood float				
	Finishing top surfaces of concrete smooth with a steel trowel.				
9	Surface beds, slabs, etc.	m2	43		
	FORMWORK				
	Rough formwork to sides				
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	35		
	MOVEMENT JOINTS etc.				
	Expansion joints with 10mm softboard between vertical concrete and brick surfaces:				
11	Not exceeding 300mm high to edges of surface beds	m	14		
12	Saw cut joints in top of concrete (Provisional)	m	2		
	Carried Forward			R	

	Brought Forward			R	
	Permanent formwork to soffits				
13	Slabs propped up not exceeding 1,5m high.	m2	3		
	REINFORCEMENT				
	Mild steel reinforcement to structural concrete work:				
	High tensile steel reinforcement to structural concrete work:				
	Fabric reinforcement:				
14	Mesh ref type 395 fabric reinforcement fixed horizontal in surface beds.	m2	52		
	Carried Forward to Summary of Section No. 4			R	

Item No		Quantity	Rate	Amount

SECTION NO. 4

BILL NO. 3

MASONRY

Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.

The tenderer is referred to the engineering drawings issued for specifications of materials and methods to be used.

SUPPLEMENTARY PREAMBLES

BRICKWORK

Sizes in descriptions

All masonry walling shall be constructed according to the specifications & details of SANS 2001 - CM:1 2007, SANS 10164 and SANS 10400

Masonry units shall comply with the following specifications:

SANS 227: burnt clay masonry units
SANS 285: calcium silicate masonry units
SANS 1215: concrete masonry units

Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick

Carried Forward R

	Brought Forward			R	
	Hollow walls etc Descriptions of hollow walls shall be deemed to include wall ties and leaving **every fifth perpend** of the bottom course of the external skin open as a weep hole				
	Reinforced brick lintels Lintels shall bear at least **160mm** onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous				
	Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour				
	Pointing Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	SAMPLES Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site				
	FOUNDATIONS				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar				
1	One brick walls	m2	13		
	FACE BRICKWORK				
	Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:				
2	Extra over brickwork for face brickwork in foundation	m2	26		
	Carried Forward			R	

				R	
	Brought Forward				
	Brickwork reinforcement				
3	150mm Wide reinforcement built in horizontally	m	150		
	SUPERSTRUCTURE				
	FACE BRICKWORK				
	Face bricks (purchase price of R 5 500.00/ 1000 delivered to site excluding VAT) pointed with recessed horizontal and vertical joints:				
4	One brick face brick walls pointed both sides	m2	40		
5	Face brickwork in beamfilling	m2	4		
6	Fair raking and cutting	m	15		
	Brick-on-edge header course copings, sills, etc. of (purchase price R 5 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces:				
7	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 11 Omm soffit	m	7		
8	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	4		
9	Fair raking cutting and fitting around pipe not exceeding 100mm diameter.	No	3		
	BRICKWORK SUNDRIES				
	Joint forming material in movement joints:				
10	12mm Fibre board built in vertically through brick walls	m	14		
	2,5mm Brickwork reinforcement				
11	150mm Wide reinforcement built in horizontally	m	157		
	Galvanised wire ties etc.				
12	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other end built into brickwork	No	55		
	Carried Forward			R	

	Brought Forward			R	
	Prestressed fabricated concrete lintels, including necessary temporary supports:				
	Ventilation Bricks				
13	set of two 22x 155mm high terra cotta clay vermin proof air brick	No	20		
	Carried Forward to Summary of Section No. 4			R	

Section No. 4
4UR
Bill No. 3
Masonry

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 4				
	WATERPROOFING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	DAMP-PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron embossed damp proof course				
1	In walls	m2	6		
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape:				
2	Under surface beds	m2	15		
	JOINT SEALANTS etc.				
	Two- part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
3	6 x 10mm In saw cut joints in floors	m	2		
	White silicone sealing compound including backing cord, bond breaker, primer, etc.				
4	**6 x 10mm In expansion joints in floors, including raking out expansion joint filler as necessary.**	m	14		
	Carried Forward			R	

	Brought Forward			R	
	"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:				
5	Around steel windows and door frames.	m	20		
	Carried Forward to Summary of Section No. 4			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 5				
	ROOF COVERINGS				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	PROFILED METAL SHEETING AND ACCESSORIES				
	0,58mm "Klip-Lok" profile Z275 spelter galvanised steel light industrial troughed interlocking roof sheeting in single lengths and accessories, with "Chromodek" and Traffic Green finish to one side, fixed to timber purlins:				
1	Roof coverings with pitch not exceeding 25 degrees	m2	16		
	ROOF AND WALL INSULATION				
	"Sisalation 405" or similar approved residential grade aluminium foil based insulation:				
2	Insulation sheeting laid taut over purlins at approximately 1000mm centres and fixed concurrent with roof covering with minimum 150mm stapled laps, including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m2	16		
	RAINWATER DISPOSAL				
	Carried Forward			R	

	Brought Forward			R	
	Aluzink seamless metal gutters:				
3	100 x 100 x 0.6mm standard rainwater gutters	m	9		
4	Extra over eaves gutter for closed ends	No	2		
5	Extra over eaves gutter for outlet for 100mm diameter pipe	No	2		
6	100 Diameter galvanised rainwater downpipes	m	5		
7	Extra over rainwater pipe for eaves offset.	No	2		
8	Ditto,for shoe.	No	2		
	Carried Forward to Summary of Section No. 4			R	

Section No. 4
4UR
Bill No. 5
Roof Coverings

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 6				
	CARPENTRY AND JOINERY				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	ROOFS, etc.				
	Sawn softwood grade 5:				
1	38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m	m	18		
2	76 x 38mm Wall plates	m	14		
3	50 x 76mm Purlins	m	18		
	Sundries				
4	Two coats creosote on sawn timbers	m2	13		
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	24		
6	Hurricane Clips	No	48		
	EAVES, VERGES, etc.				
	Carried Forward			R	

	Brought Forward			R	
	Medium density plain fibre-cement fascias and barge boards:				
7	19 x 235mm Fascias and barge boards, including aluminium H-profile jointing strips	m	16		
	DOORS etc.				
	Wrought meranti doors hung to steel frames:				
8	44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1)	No	2		
	Carried Forward to Summary of Section No. 4			R	

Section No. 4
4UR
Bill No. 6
Carpentry and Joinery

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 7				
	IRONMONGERY				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	CATCHES, CABIN HOOKS, etc.				
	"Approved"				
1	150mm chrome cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged.	No	2		
	LOCKS				
	"Union Assa Abloy" or similar approved:				
2	"Code 630" padlock	No	2		
3	Three lever mortice lockset	No	4		
	HANDLES				
	"Union Assa Abloy" or similar approved:				
4	ASSA ABLOY Anodised Silver straight pull handle (Code: AL5515-300BBAS) with 300mm fixing centres	No	2		
	LETTERS, NAMEPLATES, etc.				
	Carried Forward			R	

				R	
	Brought Forward				
	"Dorma" or similar approved				
5	DSS-130 Engraved "Male", "Female" or "Disabled" information sign	No	2		
	SUNDRIES				
6	25mm Diameter wall mounted door stop plugged	No	2		
	BATHROOMFITTINGS				
	Kimberley-Clark or Similar:				
	"Franke"or Equally approved				
7	"Franke" CHRH41 stainless steel mirror	No	2		
	"Vaal Paragon"				
	Sundries				
	Carried Forward to Summary of Section No. 4			R	

Section No. 4
4UR
Bill No. 7
Ironmongery

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 8				
	METALWORK				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	STEEL GATES, SCREENS, etc.				
	Welded screens and gates, to brickwalls:				
1	Single gate and frame size to fit standard door, size 813 x 2032mm high	No	2		
	PRESSED STEEL DOOR FRAMES				
	1,6mm Double rebated frames suitable for half brick walls:				
	1,6mm Double rebated frames suitable for one brick walls:				
2	Frame for door 813 x 2032mm high	No	2		
	STEEL WINDOWS, DOORS, etc.				
	Standard windows				
3	Window type NE1, 533 x 654mm high with burglar bars	No	2		
4	Window type NE 7,1022 x 654mm high with burglar bars	No	1		
	Carried Forward			R	

Brought Forward			R
Welded balustrading to mild steel			
Carried Forward to Summary of Section No. 4			R

Section No. 4
4UR
Bill No. 8
Metalwork

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 9				
	PLASTERING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	CEMENT SCREEDS TO CONCRETE.				
	Screeds to steel trowelled on concrete:				
1	30mm Thick to floors	m2	18		
	Cement plaster on brickwork:				
	FLOOR AND WALL SEALERS				
	Minimum two coats approved epoxy coat				
2	On screed	m2	18		
	Carried Forward to Summary of Section No. 4			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 10				
	PLUMBING AND DRAINAGE				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	SANITARY FITTINGS				
	Supply and Install "Enviroloo systems" or similar approved				
1	2 "Enviro Loo 4- Bowl Urinal Evaporative Tank System " installed strictly in accordance with manufacturers instructions, unit comprising of urinal evaporative tank, urinal bowl (3 Bowls), including brackets, 3500mm long outlet vent pipe, ventilation extraction unit fixed to wall with vent wall bracket, 1 bag mounting screws and organic starter, enzyme and toilet cleaner including all necessary piping, traps, etc.	No	1		
	Supply and Install Precast concrete wash trough:				
2	Standard SABS approved Pre-Cast Concrete Double Wash Trough, 1080 x 650 x 850mm high with support legs fitted, including all necessary pipework including soak away approximately 10 meters away from the wash trough, sized at 1000 x 1000 x 1000mm covered with "bidim" complete etc.	No	1		
	BUDGETARY ALLOWANCES				
	Carried Forward			R	

	Brought Forward			R	
	INSPECTION BY "ENVIRO LOO"/SUPPLIER:				
3	Allow an amount of R 8000.00 (Eight Thousand Rand Only) for the two site visits to be made by the "enviroo loo" suppliers to assist/support the contractor in the installation ot the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed correctly at which time a Certificate of Compliance should be issued between Mvula Trust/Limpopo Department of Education and Enviro Loo Options Limpopo.		Item		
4	Profit and attendance for the above		Item		
	TAPS, VALVES, ETC				
	"Cobra Watertech"				
5	19mm chrome plated push button taps to wash trough	No	1		
	Carried Forward to Summary of Section No. 4			R	

Section No. 4
4UR
Bill No. 10
Plumbing and Drainage

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 11				
	GLAZING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	GLAZING TO STEEL WITH PUTTY				
	6.38 mm Obscure safety glass:				
1	Panes not exceeding 0,1m2	m2	1		
	Carried Forward to Summary of Section No. 4			R	

Item No			Quantity	Rate	Amount
	SECTION NO. 4				
	BILL NO. 12				
	PAINTING				
	Tenderers are required to study the **Model Preambles for Trades, Project Notes & Specifications** and all the other Specifications annexed to the tender document before pricing these **bills of quantities** as these are deemed to form part of this contract.				
	The tenderer is referred to the drawings issued for specifications of materials and methods to be used.				
	ON FIBRE-CEMENT				
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use, on:				
1	On fascias and barge boards.	m2	7		
	ON METAL				
	One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel:				
2	On door frames	m2	5		
3	On windows with burglar bars	m2	3		
4	On gates (measured over the full flat area both sides)	m2	8		
	Spot priming defects in prime surface with zinc chromate primer, one universal undercoat and two golden brown gloss enamel on steel				
5	On gutters and down pipes	m	14		
	Carried Forward			R	

	Brought Forward			R	
	ON WOOD				
	Three coats matt varnish				
6	On doors	m2	8		
	Carried Forward to Summary of Section No. 4			R	

SECTION SUMMARY - 4UR

Bill No		Page No	Amount
1	Earthworks	105	
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3	Masonry	113	
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Carried to Final Summary R

Section No. 4
4UR

Item No			Quantity	Rate	Amount
	SECTION NO. 5				
	BILL NO. 1				
	DEMOLITIONS				
	REMOVAL OF EXISTING WORK				
	Note:				
	Unless otherwise stated, all materials from the alterations and demolitions will belong to the builder.				
	The builder should allow for the removal of all debris from site and keep the site clean at all times				
	DEMOLITIONS, ETC.				
1	Break down and demolish existing building approximate size 7000 x 7000 x 2500mm high, incl. cutting the foundation wall, strip footings, windows, roof covering, etc, removal of surface beds, backfilling, cart away etc. of all rubble and leaving no visible sign of the building (Enviroloo Toilet)	No	1		
2	Demolish existing septic tank including all necessary excavations, carting away as well as preparation work required for the new septic tank (measured elsewhere)	No	1		
	Carried Forward to Summary of Section No. 5			R	

Section No. 5
External Works
Bill No. 1
Demolitions

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		SECTION NO. 5				
		BILL NO. 2				
		WATER TANKS				
		ELEVATED WATER TANKS				
		SUPPLEMENTARY PREAMBLES				
		For preambles see "Specifications of materials and methods to be used - Engineering Details				
		SITE CLEARANCE, ETC.				
1		Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	8		
2		Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	8		
		EXCAVATIONS				
		EXCAVATION,FILLING, ETC				
		Excavation in earth not exceeding 2m deep				
3		Holes	m3	6		
		Extra over trench and hole excavations in earth for excavation:				
4		Soft rock	m3	1		
5		Hard rock	m3	0.3		
		Carried Forward			R	

		Brought Forward			R	
		Extra over all excavations for carting away				
6		Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	6		
		Risk of collapse of excavations				
7		Sides of trench and hole excavations not exceeding 1,5m deep	m2	38		
		Keeping excavations free of water				
8		Keeping excavations free of all water other than subterranean water		Item		
		Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
		Compaction of surfaces				
9		Compaction of ground surface to trenches etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	8		
		25MPa/19mm concrete				
10		Surface blinding under footings and bases	m3	0.4		
		25MPa/19mm concrete				
11		Bases	m3	6		
		TEST BLOCKS				
12		Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	2		
		Carried Forward			R	

		Brought Forward			R	
		Finishing top surfaces of concrete smooth with a steel trowel.				
13		Surface beds, slabs, etc.	m2	8		
		High tensile steel reinforcement to structural concrete work:				
14		Mild steel bar reinforcement (8 to 40mm diameter bars)	t	1.00		
		"Jojo" or equal approved SANS PVC water tanks				
15		10 000 Litre plastic water tank fitted onto and secured to tank platforms	No	3		
		Galvanized medium normalized mild steel piping				
16		25mm Pipes	m	60		
17		50mm Pipes	m	135		
		Extra over galvanised mild steel water supply pipes for fittings				
18		25mm Fittings	No	12		
19		50mm Elbows	No	12		
20		50mm Union	No	24		
21		50mm Reducing bush	No	3		
		"Cobra Watertech" or other equal approved				
22		15mm "Cobra Ref. 108LK" brass hose biptap.	No	3		
23		50mm Fullway gate valve	No	3		
24		Budgetary Allowance for unforeseen plumbing requirements		Item		
		TESTING				
		Carried Forward			R	

Section No. 5
External Works
Bill No. 2
Elevated Water Tanks

		Brought Forward			R	
		Testing of water tanks				
25		Testing for tank		Item		
		The following in structural steel tank stands				
		Welded steel columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete				
26		40 x 40 x 3mm Hot rolled angle section bracing	kg	126		
27		40 x 40 x 6mm Hot rolled angle section horizontal struts	kg	462		
28		80 x 80 x 6mm Hot rolled angle section columns, base plates and pipe clamps	kg	1,350		
29		125 x 75 x 10mm Hot rolled angle section floor beams	kg	555		
30		125 x 75 x 20 x 2.5mm Cold rolled lipped channel floor joists	kg	765		
31		30 x 6mm Cold rolled flat section bracing	kg	660		
32		High strength friction grip bolts	kg	90		
33		10mm Diameter U-shaped holding down bolt 250mm girth fixed to columns	No	35		
34		12mm Diameter L-shaped threaded anchor bolt 350mm girth embedded in top of concrete	No	15		
		PAINTWORK ETC TO NEW WORK				
		ON METAL				
		Undercoat and minimum 2 coat gloss enamel				
35		Paint to structural steel	m	690		
		Carried Forward to Summary of Section No. 5			R	
		Section No. 5 External Works Bill No. 2 Elevated Water Tanks				

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		SECTION NO. 5				
		BILL NO. 3				
		WALKWAYS				
		SITE CLEARANCE, ETC.				
1		Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	150		
2		Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	150		
		EXCAVATION, FILLING, ETC				
		Excavation in earth not exceeding 2m deep				
3		Reduced levels under floors	m3	53		
		Extra over trench and hole excavations in earth for excavation:				
4		Soft rock	m3	5		
5		Hard rock	m3	3		
		Extra over all excavations for carting away				
6		Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	53		
		Prescribed density tests on filling				
7		"Modified AASHTO Density" test	No	4		
		Carried Forward			R	

		Brought Forward			R	
		Soil insecticide in accordance with SANS 5859:				
8		Soil insecticide (protection against termites) applied as specified under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming filling in furrows and ramming	m2	150		
		Earth filling supplied by the contractor compacted to 93% Mod AASHTO density				
9		Imported natural gravel material (minimum G5 material) supplied by the contractor and brought onto site from commercial sources in filling under paving, etc compacted in layers not exceeding 150mm thick to 90% modified AASHTO density	m3	45		
10		50mm Thick clean, dry, riversand layer treated with an approved weed killer at the rate of 50 grams per square metre, spread and levelled to receive paving blocks	m3	8		
		Compaction of surfaces				
11		Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	150		
		PAVING				
		Carried Forward			R	

		Brought Forward			R	
		<u>Paving of 200 x 100 x 60mm thick precast concrete paving blocks with butt joints on 20mm thick river sand bed with sand swept into joints including preparation of ground or filling</u>				
12		60mm Interlocking concrete paving blocks type SA Herring Bone in accordance with SABS Specification 1058 and laid to falls on sand layer(measured elsewhere) with joints filled with sand and vibrated, including all straight cutting	m2	150		
		<u>Unmountable kerbs</u>				
13		Unmountable kerbing to SABS 927 in 1m lengths with 10mm wide butt joints filled in with (1:3) cement/sand mortar and pointed with grooved half round joints and 10mm wide open butt joints at 3m centres including 15MPa/19mm mass concrete bedding size 30mm thick x 400mm wide and 20MPa/19mm mass concrete hunching size 112.5mm long x 112.5mm high x 85mm thick at joints and backfilling to back of kerbs, topsoiled and levelled to adjacent surfaces	m	150		
		Carried Forward to Summary of Section No. 5			R	

Section No. 5
External Works
Bill No. 3
Walkways

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		SECTION NO. 5				
		BILL NO. 4				
		FENCING				
		SUPPLEMENTARY PREAMBLES				
		For preambles see "Specifications of materials and methods to be used - Engineering Details				
		SITE CLEARANCE, ETC.				
1		Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	510		
2		Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	510		
		EXCAVATIONS				
		EXCAVATION,FILLING, ETC				
		Excavation in earth not exceeding 2m deep				
3		Holes	m3	97		
		Extra over trench and hole excavations in earth for excavation:				
4		Soft rock	m3	10		
5		Hard rock	m3	5		
		Carried Forward			R	

		Brought Forward			R	
		Extra over all excavations for carting away				
6		Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	82		
		Risk of collapse of excavations				
7		Sides of trench and hole excavations not exceeding 1,5m deep	m2	646		
		Keeping excavations free of water				
8		Keeping excavations free of all water other than subterranean water		Item		
		Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density				
9		Backfilling to trenches, holes, etc	m3	15		
		Compaction of surfaces				
10		Compaction of ground surface to trenches etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	102		
		SOIL POISONING				
		Soil insecticide in accordance with SANS 5859:				
11		To bottoms and sides of trenches etc	m2	748		
		UNREINFORCED CONCRETE,etc.				
		25MPa/19mm concrete				
12		Bases	m3	82		
		Carried Forward			R	

Section No. 5
External Works
Bill No. 4
Fencing

		Brought Forward			R	
		FENCING				
		Steel palisade as per attached drawings complete,joined to brick columns and brickwalls, the fence painted on both sides (colour to architects)				
13		1800mm High palisade fencing comprising of 3m panels of 40 x 40 x 2mm angle iron welded flash with the back of the post 300mm from top of paling and 300mm from bottom of paling (350mm from ground level),21 palings per panel consisting of 30 x 30 x 2mm steel angle iron paling 1.8m high inserted and firmly welded to the bearers at 133mm centre to centre with a "Devil Fork" effect on top and dovetail at bottom welded to 76 x 76 x 2 mm steel square tubing post with closing pyramids caps on top ,post to be 2400mm high set and cast into 600 x 600 x 600 mm deep 25 MPa concrete bases.	m	850		
		GATES, ETC.				
14		Sliding palisade gate of 75 x 75 x 2mm mild steel framing size 5000 x 1800mm high vertically with spear head finish, each leaf with formed with bottom and top horizontal bearers of 60 x 30 x 2-2.5mm lipped and slotted channels fixed in position aligned with the brick plinth with 40 x 40 x 2.5-3mm hot rolled angles used for palisade palling slotted and welded at 100mm centres into the horizontal members with and including a mild steel locking system consisting of mild steel plate and mild steel bolt lock including padlock with keys (LI)	No	4		
		Carried Forward			R	

		Brought Forward			R	
15		Pedestrian palisade gate of 60 x 60mm mild steel framing size 1500 x 1800mm high vertically with spear head finish, each leaf with formed with bottom and top horizontal bearers of 60 x 30 x 2-2.5mm C-channel and slotted channels fixed in position welded to 35 x 35mm galvanised steel post and with 40 x 40 x 2.5-3mm hot rolled angles used for palisade palling slotted and welded at 100mm centres into the horizontal members with and including a mild steel locking system consisting of mild steel plate and mild steel bolt lock including padlock with keys and gate handles fixed to rectangular 1mm plate with swivel castors on opening sections and barrel bolts into paving	No	2		
		PAINTWORK ETC TO NEW WORK				
		ON METAL				
		Note:				
		All joints to be smoothed off.				
		All Flux, rust, grease and loose material to be removed prior to painting.				
		No brush painting is permitted.				
		Plascon or similar approved - Apply one coat of red oxide steel primer, one coat of universal undercoat and two coats of gloass enamel paint to:				
16		On gates, grilles, burglar screens, balustrading, etc	m2	3,143		
		Carried Forward to Summary of Section No. 5			R	
		Section No. 5 External Works Bill No. 4 Fencing				

SECTION SUMMARY - External Works

Carried to Final Summary R

Section No. 5
External Works

Item No	SANS Pay Ref		Unit	Quantity	Rate	Amount
		SECTION NO. 6				
		BILL NO. 1				
		PROVISIONAL SUMS				
		SUPPLEMENTARY PREAMBLES				
		All the provisional sums cover supply of material and equipment and installation where applicable by firms of specialists.				
		Provisional sums are net and do not include builder's discount, but the Tenderer may allow under "Profit" items any profit he considers necessary.				
		The Tenderer is referred to Clause 87.1 and 87.2 in the "Preliminaries" section for the definition and adjustment of "General Attendance".				
		N.B ALL PROVISIONAL WORKS ARE SUBJECT TO RE-MEASUREMENTS. THE PROVISIONAL WORK SHALL BE PAID AS PER THE WORK DONE				
		Demolitions				
1		Provide the sum of R350,000.00 (Three Hundred and Fifty Thousand) for the demolitions executed complete		Item		350,000.00
2		Profit			%	
3		Attendance			%	
		Carried Forward			R	

		Brought Forward			R	
		Refurbish existing Enviroloo seats				
4		Provide the sum of R300,000.00 (Three Hundred Thousand) for refurbishing existing seats	Item			300,000.00
5		Profit			%	
6		Attendance			%	
		Stormwater & Retaining Walls				
7		Provide the sum of R800,000.00 (Eight Hundred Thousand) for the stormwater management including retaining walls etc. executed complete.	Item			800,000.00
8		Profit			%	
9		Attendance			%	
		Replace Septic Tank				
10		Provide the sum of R100,000.00 (One Hundred Thousand) for replacing septic tank executed complete.	Item			100,000.00
11		Profit			%	
12		Attendance			%	
		Carried to Final Summary			R	

Section No. 6
Provisional Sums
Bill No. 1
Provisional Sums

FINAL SUMMARY

Section No		Page No		Amount
1	Preliminaries and General	31		
2	MD3+3UR	64		
3	FD6	97		
4	4UR	130		
5	External Works	143		
6	Provisional Sums	145		
	Sub Total (A)		R	
	Provide 10% (TEN PERCENT) on Sub-total (A) as contingency to be deducted in whole or in part if not required	Item		
	Sub Total (B)		R	
	Value Added Tax @ 15%		R	
	Carried to Final Cluster Summary		R	