

BILLS OF QUANTITIES

FOR

TSHIVHAMBE PRIMARY SCHOOL

**CONSTRUCTION OF ENVIROLOO TOILET BLOCK TYPE M2;
F6; GR3X2; GR5 AND EXTERNAL WORKS**

CIDB GRADE 4GB AND ABOVE

**TSHIVHAMBE PRIMARY SCHOOL
BILL OF QUANTITIES**

PRELIMINARIES

ITEM NO	DESCRIPTION	QUANTITY	RATE	AMOUNT
	<p><u>SECTION 1</u></p> <p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>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</p> <p>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</p> <p>Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof</p> <p>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</p> <p>Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"</p> <p>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</p> <p><u>PREAMBLES FOR TRADES</u></p> <p>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</p> <p style="text-align: right;">Carried Forward</p>			R

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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 Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories "F", "T" or "V" as the case may be below such item, where "F" denotes a fixed amount (amount not to be varied), "T" denotes an amount variable in proportion to time and "V" denotes an amount variable in proportion to value

SECTION A - PRINCIPAL BUILDING AGREEMENT

Definitions (A1)

Definitions and interpretation (clause 1)

1	F:..... V:..... T:.....	Item	1
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Objective and Preparation (A2 to A14)

Offer acceptance and performance (clause 2)

2	F:..... V:..... T:.....	Item	1
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Documents (clause3)

3	F:..... V:..... T:.....	Item	1
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Design responsibility (clause 4)

4	F:..... V:..... T:.....	Item	1
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Employer's agents (clause 5)			
5	F:..... V:..... T:.....	Item	1
<p>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</p> <p>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</p>			
Site representative (clause 6)			
6	F:..... V:..... T:.....	Item	1
Compliance with regulations (clause 7)			
7	F:..... V:..... T:.....	Item	1
Works risk (clause 8)			
8	F:..... V:..... T:.....	Item	1
Carried Forward			R
			0.00

Brought Forward			R	0.00
	Indemnities (clause 9)			
9	F:..... V:..... T:.....	Item	1	
	Works insurances (clause 10)			
10	F:..... V:..... T:.....	Item	1	
	Liability insurances (clause 11)			
11	F:..... V:..... T:.....	Item	1	
	Effecting insurance (clause 12)			
12	F:..... V:..... T:.....	Item	1	
13	NO CLAUSE	N/A		
	Security (clause 14)			
14	F:..... V:..... T:.....	Item	1	
	Execution (A15-A23)			
	Preparation for and execution of the works (clause 15)			
15	F:..... V:..... T:.....	Item	1	
	Access to the works (clause 16)			
16	F:..... V:..... T:.....	Item	1	
	Contract instructions (clause 17)			
17	F:..... V:..... T:.....	Item	1	
	Carried Forward		R	

Brought Forward			R
Completion (A24-A30)			
	Practical completion (clause 24)		
24	F:..... V:..... T:.....	Item	1
	Works completion (clause 25)		
25	F:..... V:..... T:.....	Item	1
	Final completion (clause 26)		
26	F:..... V:..... T:.....	Item	1
	Latent defects liability period (clause 27)		
27	F:..... V:..... T:.....	Item	1
	Sectional completion (clause 28)		
28	F:..... V:..... T:.....	Item	1
	Revision of date of practical completion (clause 29)		
29	F:..... V:..... T:.....	Item	1
	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)		
	Penalty for non-completion (clause 30)		
30	F:..... V:..... T:.....	Item	1
Carried Forward			R

Brought Forward			R
Payment (A31 - A35)			
31	Interim payment to the contractor (clause 31) F:..... V:..... T:.....	Item	1
32	Adjustment to the contract value (clause 32) F:..... V:..... T:.....	Item	1
<p>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</p>			
33	Recovery of expense and loss (clause 33) F:..... V:..... T:.....	Item	1
34	Final account and final payment (clause 34) F:..... V:..... T:.....	Item	1
<p>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</p> <p>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</p>			
Carried Forward			R

Brought Forward			R
	Payment to other parties (clause 35)		
35	F:..... V:..... T:..... Item	1	
Cancellation (A36-A39)			
	Cancellation by employer - contractor's default (clause 36)		
36	F:..... V:..... T:..... Item	1	
	Cancellation by employer - loss and damage (clause 37)		
37	F:..... V:..... T:..... Item	1	
	Cancellation by contractor - employer's default (clause 38)		
38	F:..... V:..... T:..... Item	1	
	Cancellation - cessation of the works (clause 39)		
39	F:..... V:..... T:..... Item	1	
Dispute (A40)			
	Dispute Settlement (clause 40)		
40	F:..... V:..... T:..... Item	1	
Substitute Provisions (A41)			
	State clauses (Clause 41)		
41	F:..... V:..... T:..... Item	1	
	Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder		
Carried Forward			R

Brought Forward

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THE SCHEDULE

Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder

Pre-tender information (clause 42)

42 F:..... V:..... T:..... Item 1

42.1 CONTRACTING AND OTHER PARTIES

42.1.1 Employer: As per information on the tender data

42.1.2 Principal Agent: As per the information on the Tender data

42.1.3 Architect: Afro Architectural

42.1.4 Quantity Surveyor:

Structural :

42.1.5 Civil:

42.1.6 Electrical Engineer:

42.1.6 Mechanical Engineer:

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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: N/A

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:
UNKNOWN

42.2.6 Period for the commencement of the works after the contractor takes possession

42.2.7 For the works as a whole. Intended date of practical completion and the penalty per calendar day 3 months after contractual commencement date Date Penalty Amount The penalty per calendar day shall be 0.05% of the tender amount (inclusive of value added tax)

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42.2.8 For the works in sections: Intended date of practical completion and the penalty per calendar 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 20.00 % With a deductible of - to be determined by the contractor

42.3.2 Supplementary insurance is required No

42.3.3 Public liability insurance to be effected by:Contractor: For the Sum of R 2 500 000-00With a deductible of - to be determined by the contractor

42.4 DOCUMENTS

42.4.1 Waivers of contractors lien or right of continuing possession is required Yes

42.4.2 Number of construction document copies to be supplied to the contractor free of charge: 3 Number of

Carried Forward

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42.4.3 Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with: ~~the~~ 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 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 Yes Where JBCC CPAP is to be used Base Month July 2010

42.4.7 Details of changes made to the provision of JBCC standard documentation:

SECTION B: PRELIMINARIES

Definitions and interpretation (B1)

Definition and interpretation (B1.1 - B1.4.6)

43 F:..... V:..... T:..... Item 1

Documents (B2)

Checking of documents (B2.1)

44 F:..... V:..... T:..... Item 1

Provisional bills of quantities (B2.2)

45 F:..... V:..... T:..... N/A

Carried Forward

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Brought Forward			R
46	Availability of construction documentation (B2.3) F:..... V:..... T:.....	Item	1
47	Interests of agents (B2.4) F:..... V:..... T:.....	Item	1
48	Priced documents (B2.5) F:..... V:..... T:.....	Item	1
49	Tender submission (B2.6) F:..... V:..... T:.....	Item	1
50	Defined works area (B3.1) F:..... V:..... T:.....	Item	1
The site (B3)			
51	Geotechnical investigation (B3.2) F:..... V:..... T:.....	Item	1
52	Inspection of the site (B3.3) F:..... V:..... T:.....	Item	1
	Existing premises occupied (B3.4) F:..... V:..... T:.....		
	Previous work - dimensional accuracy (B3.5) F:..... V:..... T:.....		
	Previous work - defects (B3.6) F:..... V:..... T:.....		
Carried Forward			R

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

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70	Plant, equipment, sheds and offices (B6.4) F:..... V:..... T:.....	Item	1
71	Main notice board (B6.5) F:..... V:..... T:.....	Item	1
72	Subcontractors' notice board (B6.6) F:..... V:..... T:.....	N/A	
Temporary services (B7)			
73	Location (B7.1) F:..... V:..... T:.....	Item	1
74	Water (B7.2) Option [A] shall apply F:..... V:..... T:.....	Item	1
75	Electricity (B7.3) Option [A] shall apply F:..... V:..... T:.....	Item	1
76	Telecommunication facilities (B7.4) F:..... V:..... T:.....	Item	1
77	Ablution facilities (B7.5) Option [A] shall apply F:..... V:..... T:.....	Item	1
Prime cost amounts (B8)			
78	Responsibility for prime cost amounts (B8.1) F:..... V:..... T:.....	Item	1
Carried Forward			R

Brought Forward			R
Attendance on N/S Subcontractors (B9)			
79	General attendance (B9.1) F:..... V:..... T:.....	Item	1
80	Special attendance (B9.2) F:..... V:..... T:.....	Item	1
81	Commissioning - Fuel, water and power (B9.3) F:..... V:..... T:.....	Item	1
Financial aspects (B10)			
	Statutory taxes, duties and levies (B10.1) F:..... V:..... T:.....	Item	1
82	Payment of preliminaries (B10.2) Option [B] shall apply F:..... V:..... T:.....	Item	1
83	Adjustment of preliminaries (B10.3) Option [A] shall apply F:..... V:..... T:.....	Item	1
84	Payment certificate cash flow (B10.4) F:..... V:..... T:.....	Item	1
General (B11)			
85	Protection of works (B11.1) F:..... V:..... T:.....	Item	1
Carried Forward			R

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86	Protection/isolation of existing/sectionally occupied works (B11.2) F:..... V:..... T:.....	Item 1
87	Security of the Works (B11.3) F:..... V:..... T:.....	Item 1
88	Notice before covering work (B11.4) F:..... V:..... T:.....	Item 1
89	Disturbance (B11.5) F:..... V:..... T:.....	Item 1
90	Environmental Disturbance (B11.6) F:..... V:..... T:.....	Item 1
91	Works cleaning and clearing (B11.7) F:..... V:..... T:.....	Item 1
92	Vermin (B11.8) F:..... V:..... T:.....	Item 1
93	Overhand work (B11.9) F:..... V:..... T:.....	Item 1
94	Instruction manuals and guarantees (B11.10) F:..... V:..... T:.....	Item 1
95	As built information (B11.11) F:..... V:..... T:.....	Item 1
96	Tenant Installations (B11.12) F:..... V:..... T:.....	Item 1
Carried Forward		

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Schedule of variables (B12)		
Pre-tender information (B12.1)		
97	F:..... V:..... T:.....	Item 1
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		
12.1.12 Enclosure of the works (B6.2)		
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12.1.11 Inspection of adjoining properties (B3.11)

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

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

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Brought Forward

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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

Site instructions 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

98 F:..... V:..... T:..... Item 1

Black economic empowerment and training

99 F:..... V:..... T:..... Item 1

Proprietary branded products

100 F:..... V:..... T:..... Item 1

Carried Forward

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Brought Forward		R
101	<p>Testing of flat roof waterproofing for watertightness 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 watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:..... T:..... Item 1</p>	
102	<p>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</p> <p>Contract instructions</p> <p>F:..... V:..... T:..... Item 1</p>	
103	<p>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</p> <p>Labour record</p> <p>F:..... V:..... T:..... Item 1</p>	
104	<p>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</p> <p>Plant record</p> <p>F:..... V:..... T:..... Item 1</p>	
Carried Forward		R

Brought Forward			R
105	<p>Guarantees</p> <p>F:..... V:..... T:.....</p> <p>Item</p> <p>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</p>	1	
106	<p>Overtime</p> <p>F:..... V:..... T:.....</p> <p>Item</p> <p>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</p>	1	
107	<p>Co-operation of contractor for cost management</p> <p>F:..... V:..... T:.....</p> <p>Item</p>	1	
Carried Forward			R

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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

108 F:..... V:..... T:..... Item 1

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

Category : Time

Carried to Final Summary

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BUILDING WORKS - M2

ITEM NO	DESCRIPTION	QUANTITY	RATE	AMOUNT
	SECTION 1			
	<u>BILL NO.1</u>			
	<u>EARTHWORKS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>SITE CLEARANCE</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. m ²	65		
2	Stripping average 100mm thick layer of top soil and stockpiling on site m ²	65		
	<u>EXCAVATION,FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches m ³	7		
4	Pit m ³	14		
5	For aprons thickening m ³	2		
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
6	Soft rock m ³	1		
7	Hard rock m ³	1		
	<u>Extra over all excavations for carting away:</u>			
8	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor m ³	18		
	<u>Risk of collapse of excavations</u>			
9	Sides of trench and hole excavation not exceeding 1,5m deep. m ²	36		
	Carried Forward			R

Brought Forward			R
<u>Keeping excavations free of water.</u>			
10	Keeping excavations free of water other than subterranean water	Item	1
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>			
11	Under floors, steps, pavings, etc.	m ³	8
12	Backfilling to trenches, holes, etc.	m ³	7
<u>Compaction of surfaces</u>			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	25
14	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	m ²	4
15	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	m ²	23
<u>Prescribed density tests on filling</u>			
16	Modified AASHTO Density tests	No	4
<u>SOIL POISONING</u>			
<u>Soil insecticide</u>			
17	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m ²	25
18	To bottom of concrete aprons	m ²	13
19	To bottoms and sides of trenches, etc.	m ²	20
Carried Forward to Summary of Section No.2			R

BILL NO.2

CONCRETE, FORMWORK AND REINFORCEMENT

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

UNREINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

1	Strip footings	m ³	2
2	Ditto, but surface bed in pit	m ³	1
3	2Aprons cast in panels	m ³	2
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	10
5	Thickening down apron on edge 110mm deep x 200mm wide	m	7

REINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

6	Slabs	m ³	2
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float

7	Aprons and pavings to falls	m ²	23
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TEST CUBES

8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	3
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Finishing top surfaces of concrete smooth with a steel trowel

9	Surface beds, slabs, etc.	m ²	23
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Carried Forward

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<u>FORMWORK</u>			
<u>Rough formwork to sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	19
<u>Permanent formwork to soffits:</u>			
11	Slabs propped up not exceeding 1.5m high	m ²	6
12	Leave or form 500mm diameter opening in top of floor slab	No	2
<u>REINFORCEMENT</u>			
<u>Mesh Reinforcement (measure nett)</u>			
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m ²	23
Carried Forward to Summary of Section No.2			R

BILL NO.4

BRICKWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

BRICKWORK

Sizes in descriptions

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

Hollow walls etc

Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.

Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.

User note: The above preamble generally applies for works in hot and humid coastal areas

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

Carried Forward

R

Brought Forward			R
<u>SAMPLES</u>			
Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6			
<u>FOUNDATIONS</u>			
Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar			
1	One brick walls	m ²	8
2	One brick walls in pit	m ²	14
3	4Half brick corbelling in pit	m	11
<u>FACE BRICKWORK</u>			
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
4	Extra over brickwork for face brickwork in foundation	m ²	3
<u>SUPERSTRUCTURE</u>			
<u>FACE BRICKWORK</u>			
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
5	Half brickwork for face brick walls pointed both sides	m ²	9
6	One brickwork for face brick walls pointed both sides	m ²	42
7	Extra over brickwork for face brickwork in beamfilling	m ²	3
8	Fair raking and cutting	m	11
Carried Forward			R

Brought Forward			R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>			
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	5
10	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	4
11	Fair cutting and fitting around pipe not exceeding 100mm diameter. No		4
<u>BRICKWORK SUNDRIES</u>			
<u>Brick reinforcement</u>			
12	75mm Wide reinforcement built in horizontally	m	66
13	150mm Wide reinforcement built in horizontally	m	275
<u>Turning pieces</u>			
14	220mm Wide turning piece to lintel etc	m	2
<u>Galvanised wire ties etc</u>			
15	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No	12
<u>Prestressed fabricated lintels</u>			
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	9
<u>Ventillation bricks</u>			
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	6
Carried Forward to Summary of Section No.2			R

BILL NO.5

WATERPROOFING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

DAMP-PROOFING OF WALLS AND FLOORS

One layer 375mm micron embossed damp proof course

1	In walls	m ²	4
---	----------	----------------	---

One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape

2	Under surface beds	m ²	30
---	--------------------	----------------	----

FLOOR AND WALLS SEALERS

Secomastic non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:

3	Around steel windows and door frames.	m	11
---	---------------------------------------	---	----

Carried Forward to Summary of Section No.2

R

BILL NO.6

ROOF COVERINGS

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes

PROFILED METAL SHEETING AND ACCESSORIES

0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)

1	Allow the Provisional Amount of R7 000.00 (Seven Thousand Rand) for supply and installation of roof sheeting	Item	1
---	--	------	---

Sundries

2	12" Thermal resistance sisalation laid on purlins	m ²	22
---	---	----------------	----

RAINWATER DISPOSAL

Aluzink seamless metal gutters:

3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	7
---	--	---	---

4	Extra over for closed ends	No	2
---	----------------------------	----	---

5	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	2
---	---	---	---

6	Extra over rainwater pipe for eaves offset	No	2
---	--	----	---

7	Ditto ,for shoe	No	2
---	-----------------	----	---

Carried Forward to Summary of Section No.2

R

BILL NO.7

CARPENTRY AND JOINERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ROOFS, ETC.

The following in pre-fabricated roof trusses manufactured from "CCA Tanalith" pre-treated wrought softwood

- | | | | |
|---|--|------|---|
| 1 | Allow the Provisional Amount of R5 000.00 (Five Thousand Rand) for supply and complete installation of roof trusses including all necessary bracing, gangboarding, purlins, splayed eaves purlins, wall plates, etc. | Item | 1 |
|---|--|------|---|

Sundries

- | | | | |
|---|--|----------------|----|
| 2 | Two coats creosote on sawn timbers | m ² | 23 |
| 3 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 10 |
| 4 | Hurricane clips | No | 18 |

EAVES, VERGES, ETC.

Pressed fibre-cement

- | | | | |
|---|--|---|----|
| 5 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 18 |
|---|--|---|----|

DOORS, ETC.

Wrought meranti doors hung to steel frames

- | | | | |
|---|--|----|---|
| 6 | 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 | 1 |
|---|--|----|---|

Carried Forward

R

	Brought Forward	R
7 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	2
Carried Forward to Summary of Section No.2		R

BILL NO.8

IRONMONGERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CATCHES, CABIN, HOOKS, ETC

Approved

- | | | | |
|---|--|----|---|
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 1 |
|---|--|----|---|

LOCKS

Approved

- | | | | |
|---|----------------------------|----|---|
| 2 | Four lever mortice lockset | No | 1 |
| 3 | Indicator lockset | No | 2 |

DOORSTOPS

Approved

- | | | | |
|---|--|----|---|
| 4 | 38mm Diameter rubber door stop plugged | No | 3 |
|---|--|----|---|

LETTERS, NAMEPLATES, ETC.

Union or similar approved

- | | | | |
|---|--|----|---|
| 5 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 2 |
|---|--|----|---|

BATHROOM FITTINGS

Kimberley-Clarkor Simlilar

- | | | | |
|---|---|----|---|
| 6 | Kimberly Clark SQ2 code 405607B white lockable toilet roll holder | No | 2 |
|---|---|----|---|

Carried Forward to Summary of Section No.2

R

BILL NO.9

METALWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

PRESSED STEEL DOOR FRAMES

1,2mm Single rebated frames suitable for half brick walls

1	Frame for door 813 x 2032mm high	No	2
---	----------------------------------	----	---

1,6mm Double rebated frames suitable for one brickwalls

2	Frame for door 813 x 2032mm high	No	1
---	----------------------------------	----	---

STEEL WINDOWS, DOORS, ETC

3	Window type NE1, 533 x 654mm high including burglar bars	No	4
---	--	----	---

4	Window type NE 7,1022 x 654mm high including burglar bars	No	2
---	---	----	---

WELDED SCREENS, GATES, ETC

Steel gates and frames

5	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1
---	---	----	---

Carried Forward to Summary of Section No.2

R

BILL NO. 10

PLASTERING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CEMENT SCREEDS TO CONCRETE

Screeds to steel trowelled, on concrete:

1	30mm thick on floors	m ²	23
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INTERNAL PLASTER

Cement plaster on brickwork or blockwork

2	On pits walls	m ²	16
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FLOOR AND WALLS SEALERS

Minimum two coats approved epoxy coat:

3	On screed	m ²	23
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4	On internal textured plaster walls and floors in pit	m ²	19
---	--	----------------	----

Carried Forward to Summary of Section No.2

R

BILL NO. 11

PLUMBING AND DRAINAGE (PROVISIONAL)

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ENVIRO-LOO TOILET SYSTEMS

1	Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	1
2	Allow the provisional sum of R30 000 for complete installation of Enviroloo system	Item	1
3	Profit and attendance on above item	Item	1

URINAL AND EVAPORATIVE TANK SYSTEM

4	Allow the provisional sum of R25 000 for complete installation of urinal and evaporative tank system	Item	1
5	Profit and attendance	Item	1

FITTINGS

6	19mm chrome plated push button taps to wash troughs	No	2
---	---	----	---

Carried Forward to Summary of Section No.2

R

BILL NO. 12

GLAZING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

GLAZING TO STEEL WITH PUTTY

6.38mm Obscure safety glass

1	Panes not exceeding 0,1 m2	m ²	3
---	----------------------------	----------------	---

Carried Forward to Summary of Section No.2

R

BILL NO. 13

PAINTWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ON FIBRE-CEMENT

Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint

1	On fascias and barge boards	m ²	4
---	-----------------------------	----------------	---

ON WOOD

Undercoat and minimum 2 coat gloss enamel

2	On doors (Internal)	m ²	10
---	---------------------	----------------	----

3	On doors (External)	m ²	9
---	---------------------	----------------	---

ON METAL

Undercoat and minimum 2 coat gloss enamel

4	On door frames	m ²	6
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5	On gates (Measured over the full flat area of both sides)	m ²	11
---	---	----------------	----

6	On gutters and down pipes	m	9
---	---------------------------	---	---

Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel

7	On windows with burglar bars	m ²	5
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Carried Forward to Summary of Section No.2

R

SUMMARY (BUILDING WORKS - M2)

1	EARTHWORKS	Page	29
2	CONCRETE,FORMWORK AND REINFORCEMENT	Page	31
3	MASONRY	Page	34
4	WATERPROOFING	Page	35
5	ROOF COVERINGS	Page	36
6	CARPENTRY AND JOINERY	Page	38
7	IRONMONGERY	Page	39
8	METALWORK	Page	40
9	IN SITU FINISHES	Page	41
10	PLUMBING AND DRAINAGE	Page	42
11	GLAZING	Page	43
12	PAINTWORK	Page	44

Carried to Final Summary

R

BUILDING WORKS - F6

ITEM NO	DESCRIPTION	QUANTITY	RATE	AMOUNT
	SECTION 1			
	<u>BILL NO.1</u>			
	<u>EARTHWORKS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>SITE CLEARANCE</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. m ²	93		
2	Stripping average 100mm thick layer of top soil and stockpiling on site m ²	53		
	<u>EXCAVATION,FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches m ³	12		
4	Pit m ³	22		
5	For aprons thickening m ³	1		
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
6	Soft rock m ³	2		
7	Hard rock m ³	3		
	<u>Extra over all excavations for carting away:</u>			
8	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor m ³	23		
	<u>Risk of collapse of excavations</u>			
9	Sides of trench and hole excavation not exceeding 1,5m deep. m ²	52		
	Carried Forward			R

Brought Forward			R
<u>Keeping excavations free of water.</u>			
10	Keeping excavations free of water other than subterranean water	Item	1
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>			
11	Under floors, steps, pavings, etc.	m ³	6
12	Backfilling to trenches, holes, etc.	m ³	5
<u>Compaction of surfaces</u>			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	25
14	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	m ²	13
15	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	m ²	22
<u>Prescribed density tests on filling</u>			
16	Modified AASHTO Density tests	No	5
<u>SOIL POISONING</u>			
<u>Soil insecticide</u>			
17	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m ²	25
18	To bottom of concrete aprons	m ²	22
19	To bottoms and sides of trenches, etc.	m ²	66
Carried Forward to Summary of Section No.2			R

BILL NO.3

CONCRETE, FORMWORK AND REINFORCEMENT

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

UNREINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

1	Strip footings	m ³	2
2	Ditto, but surface bed in pit	m ³	1
3	2Aprons cast in panels	m ³	1
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	13
5	Thickening down apron on edge 110mm deep x 200mm wide	m	21

REINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

6	Slabs	m ³	3
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float

7	Aprons and pavings to falls	m ²	11
---	-----------------------------	----------------	----

TEST CUBES

8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	5
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Finishing top surfaces of concrete smooth with a steel trowel

9	Surface beds, slabs, etc.	m ²	31
---	---------------------------	----------------	----

Carried Forward

R

		Brought Forward	R
<u>FORMWORK</u>			
<u>Rough formwork to sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	15
<u>Permanent formwork to soffits:</u>			
11	Slabs propped up not exceeding 1.5m high	m ²	7
12	Leave or form 500mm diameter opening in top of floor slab	No	10
<u>REINFORCEMENT</u>			
<u>Mesh Reinforcement (measure nett)</u>			
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m ²	31
Carried Forward to Summary of Section No.2			R

BILL NO.4

BRICKWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

BRICKWORK

Sizes in descriptions

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

Hollow walls etc

Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.

Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.

User note: The above preamble generally applies for works in hot and humid coastal areas

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

Carried Forward

R

		Brought Forward		R
<u>SAMPLES</u>				
Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6				
<u>FOUNDATIONS</u>				
Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar				
1	One brick walls	m ²	12	
2	One brick walls in pit	m ²	18	
3	4Half brick corbelling in pit	m	13	
<u>FACE BRICKWORK</u>				
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>				
4	Extra over brickwork for face brickwork in foundation	m ²	5	
<u>SUPERSTRUCTURE</u>				
<u>FACE BRICKWORK</u>				
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>				
5	Half brickwork for face brick walls pointed both sides	m ²	24	
6	One brickwork for face brick walls pointed both sides	m ²	52	
7	Extra over brickwork for face brickwork in beamfilling	m ²	3	
8	Fair raking and cutting	m	5	
		Carried Forward		R

Brought Forward		R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>		
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit m	8
10	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle m	8
11	Fair cutting and fitting around pipe not exceeding 100mm diameter. No	8
<u>BRICKWORK SUNDRIES</u>		
<u>Brick reinforcement</u>		
12	75mm Wide reinforcement built in horizontally m	95
13	150mm Wide reinforcement built in horizontally m	171
<u>Turning pieces</u>		
14	220mm Wide turning piece to lintel etc m	7
<u>Galvanised wire ties etc</u>		
15	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork No	17
<u>Prestressed fabricated lintels</u>		
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m m	9
<u>Ventillation bricks</u>		
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze No	6
Carried Forward to Summary of Section No.2		R

BILL NO.5

WATERPROOFING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

DAMP-PROOFING OF WALLS AND FLOORS

One layer 375mm micron embossed damp proof course

1	In walls	m ²	4
---	----------	----------------	---

One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape

2	Under surface beds	m ²	31
---	--------------------	----------------	----

FLOOR AND WALLS SEALERS

Secomastic non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:

3	Around steel windows and door frames.	m	25
---	---------------------------------------	---	----

Carried Forward to Summary of Section No.2

R

BILL NO.6

ROOF COVERINGS

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes

PROFILED METAL SHEETING AND ACCESSORIES

0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)

1	Allow the Provisional Amount of R12 000.00 (Twelve Thousand Rand) for supply and installation of roof sheeting	Item	1
---	--	------	---

Sundries

2	12" Thermal resistance sisalation laid on purlins	m ²	39
---	---	----------------	----

RAINWATER DISPOSAL

Aluzink seamless metal gutters:

3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	7
---	--	---	---

4	Extra over for closed ends	No	2
---	----------------------------	----	---

5	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	3
---	---	---	---

6	Extra over rainwater pipe for eaves offset	No	2
---	--	----	---

7	Ditto ,for shoe	No	1
---	-----------------	----	---

Carried Forward to Summary of Section No.2

R

BILL NO.7

CARPENTRY AND JOINERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ROOFS, ETC.

The following in pre-fabricated roof trusses manufactured from "CCA Tanalith" pre-treated wrought softwood

- | | | | |
|---|--|------|---|
| 1 | Allow the Provisional Amount of R9 000.00 (Nine Thousand Rand) for supply and complete installation of roof trusses including all necessary bracing, gangboarding, purlins, splayed eaves purlins, wall plates, etc. | Item | 1 |
|---|--|------|---|

Sundries

- | | | | |
|---|--|----------------|----|
| 2 | Two coats creosote on sawn timbers | m ² | 10 |
| 3 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 17 |
| 4 | Hurricane clips | No | 20 |

EAVES, VERGES, ETC.

Pressed fibre-cement

- | | | | |
|---|--|---|----|
| 5 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 13 |
|---|--|---|----|

DOORS, ETC.

Wrought meranti doors hung to steel frames

- | | | | |
|---|--|----|---|
| 6 | 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 | 1 |
|---|--|----|---|

Carried Forward

R

	Brought Forward	R
7 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.2		R

BILL NO.8

IRONMONGERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CATCHES, CABIN, HOOKS, ETC

Approved

- | | | | |
|---|--|----|---|
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 1 |
|---|--|----|---|

LOCKS

Approved

- | | | | |
|---|----------------------------|----|---|
| 2 | Four lever mortice lockset | No | 1 |
| 3 | Indicator lockset | No | 6 |

DOORSTOPS

Approved

- | | | | |
|---|--|----|---|
| 4 | 38mm Diameter rubber door stop plugged | No | 1 |
|---|--|----|---|

LETTERS, NAMEPLATES, ETC.

Union or similar approved

- | | | | |
|---|--|----|---|
| 5 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 1 |
|---|--|----|---|

BATHROOM FITTINGS

Kimberley-Clarkor Simlilar

- | | | | |
|---|---|----|---|
| 6 | Kimberly Clark SQ2 code 405607B white lockable toilet roll holder | No | 6 |
|---|---|----|---|

Sundries

- | | | | |
|---|----------------|----|---|
| 7 | Female she-bin | No | 6 |
|---|----------------|----|---|

Carried Forward to Summary of Section No.2

R

BILL NO.9

METALWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

PRESSED STEEL DOOR FRAMES

1,2mm Single rebated frames suitable for half brick walls

1	Frame for door 813 x 2032mm high	No	6
---	----------------------------------	----	---

1,6mm Double rebated frames suitable for one brickwalls

2	Frame for door 813 x 2032mm high	No	1
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STEEL WINDOWS, DOORS, ETC

3	Window type NE1, 533 x 654mm high including burglar bars	No	6
---	--	----	---

4	Window type NE 7,1022 x 654mm high including burglar bars	No	3
---	---	----	---

WELDED SCREENS, GATES, ETC

Steel gates and frames

5	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1
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Carried Forward to Summary of Section No.2

R

BILL NO. 10

PLASTERING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CEMENT SCREEDS TO CONCRETE

Screeds to steel trowelled, on concrete:

1	30mm thick on floors	m ²	31
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INTERNAL PLASTER

Cement plaster on brickwork or blockwork

2	On pits walls	m ²	31
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FLOOR AND WALLS SEALERS

Minimum two coats approved epoxy coat:

3	On screed	m ²	31
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4	On internal textured plaster walls and floors in pit	m ²	85
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Carried Forward to Summary of Section No.2

R

BILL NO. 11

PLUMBING AND DRAINAGE (PROVISIONAL)

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ENVIRO-LOO TOILET SYSTEMS

1	Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	2
2	Allow the provisional sum of R80 000 for complete installation of Enviroloo system	Item	1
3	Profit and attendance on above item	Item	1

FITTINGS

4	19mm chrome plated push button taps to wash troughs	No	4
---	---	----	---

Carried Forward to Summary of Section No.2

R

BILL NO. 12

GLAZING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

GLAZING TO STEEL WITH PUTTY

6.38mm Obscure safety glass

1	Panes not exceeding 0,1 m2	m ²	4
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Carried Forward to Summary of Section No.2

R _____

BILL NO. 13

PAINTWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ON FIBRE-CEMENT

Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint

1	On fascias and barge boards	m ²	24
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ON WOOD

Undercoat and minimum 2 coat gloss enamel

2	On doors (Internal)	m ²	2
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3	On doors (External)	m ²	19
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ON METAL

Undercoat and minimum 2 coat gloss enamel

4	On door frames	m ²	7
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5	On gates (Measured over the full flat area of both sides)	m ²	8
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6	On gutters and down pipes	m	15
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Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel

7	On windows with burglar bars	m ²	8
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Carried Forward to Summary of Section No.2

R

SUMMARY (BUILDING WORKS - F6)

1	EARTHWORKS	Page	48
2	CONCRETE, FORMWORK AND REINFORCEMENT	Page	50
3	MASONRY	Page	53
4	WATERPROOFING	Page	54
5	ROOF COVERINGS	Page	55
6	CARPENTRY AND JOINERY	Page	57
7	IRONMONGERY	Page	58
8	METALWORK	Page	59
9	IN SITU FINISHES	Page	60
10	PLUMBING AND DRAINAGE	Page	61
11	GLAZING	Page	62
12	PAINTWORK	Page	63

Carried to Final Summary

R

BUILDING WORKS - GR3

ITEM NO	DESCRIPTION	QUANTITY	RATE	AMOUNT
	SECTION 1			
	<u>BILL NO.1</u>			
	<u>EARTHWORKS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>SITE CLEARANCE</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. m ²	150		
2	Stripping average 100mm thick layer of top soil and stockpiling on site m ²	62		
	<u>EXCAVATION,FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches m ³	10		
4	Pit m ³	28		
5	For aprons thickening m ³	16		
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
6	Soft rock m ³	2		
7	Hard rock m ³	4		
	<u>Extra over all excavations for carting away:</u>			
8	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor m ³	32		
	<u>Risk of collapse of excavations</u>			
9	Sides of trench and hole excavation not exceeding 1,5m deep. m ²	76		
	Carried Forward			R

Brought Forward			R
<u>Keeping excavations free of water.</u>			
10	Keeping excavations free of water other than subterranean water	Item	1
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>			
11	Under floors, steps, pavings, etc.	m ³	4
12	Backfilling to trenches, holes, etc.	m ³	16
<u>Compaction of surfaces</u>			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	16
14	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	m ²	18
15	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	m ²	30
<u>Prescribed density tests on filling</u>			
16	Modified AASHTO Density tests	No	6
<u>SOIL POISONING</u>			
<u>Soil insecticide</u>			
17	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m ²	16
18	To bottom of concrete aprons	m ²	30
19	To bottoms and sides of trenches, etc.	m ²	56
Carried Forward to Summary of Section No.2			R

BILL NO.3

CONCRETE, FORMWORK AND REINFORCEMENT

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

UNREINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

1	Strip footings	m ³	4
2	Ditto, but surface bed in pit	m ³	2
3	2Aprons cast in panels	m ³	2
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	2
5	Thickening down apron on edge 110mm deep x 200mm wide	m	2

REINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

6	Slabs	m ³	4
---	-------	----------------	---

CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float

7	Aprons and pavings to falls	m ²	30
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TEST CUBES

8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	6
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Finishing top surfaces of concrete smooth with a steel trowel

9	Surface beds, slabs, etc.	m ²	34
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Carried Forward

R

	Brought Forward	R
<u>FORMWORK</u>		
<u>Rough formwork to sides:</u>		
10	Edges, risers, ends and reveals not exceeding 300mm high or wide m	30
<u>Permanent formwork to soffits:</u>		
11	Slabs propped up not exceeding 1.5m high m ²	14
12	Leave or form 500mm diameter opening in top of floor slab No	6
<u>REINFORCEMENT</u>		
<u>Mesh Reinforcement (measure nett)</u>		
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds m ²	34
Carried Forward to Summary of Section No.2		R

BILL NO.4

BRICKWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

BRICKWORK

Sizes in descriptions

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

Hollow walls etc

Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.

Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.

User note: The above preamble generally applies for works in hot and humid coastal areas

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

Carried Forward

R

		Brought Forward		R
<u>SAMPLES</u>				
Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6				
<u>FOUNDATIONS</u>				
Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar				
1	One brick walls	m ²	14	
2	One brick walls in pit	m ²	42	
3	4Half brick corbelling in pit	m	40	
<u>FACE BRICKWORK</u>				
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>				
4	Extra over brickwork for face brickwork in foundation	m ²	8	
<u>SUPERSTRUCTURE</u>				
<u>FACE BRICKWORK</u>				
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>				
5	Half brickwork for face brick walls pointed both sides	m ²	4	
6	One brickwork for face brick walls pointed both sides	m ²	88	
7	Extra over brickwork for face brickwork in beamfilling	m ²	4	
8	Fair raking and cutting	m	22	
		Carried Forward		R

Brought Forward		R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>		
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	6
	m	
10	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	6
	m	
11	Fair cutting and fitting around pipe not exceeding 100mm diameter.	6
	No	
<u>BRICKWORK SUNDRIES</u>		
<u>Brick reinforcement</u>		
12	75mm Wide reinforcement built in horizontally	86
	m	
13	150mm Wide reinforcement built in horizontally	194
	m	
<u>Turning pieces</u>		
14	220mm Wide turning piece to lintel etc	10
	m	
<u>Galvanised wire ties etc</u>		
15	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	20
	No	
<u>Prestressed fabricated lintels</u>		
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	14
	m	
<u>Ventillation bricks</u>		
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	8
	No	
Carried Forward to Summary of Section No.2		R

BILL NO.5

WATERPROOFING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

DAMP-PROOFING OF WALLS AND FLOORS

One layer 375mm micron embossed damp proof course

1	In walls	m ²	6
---	----------	----------------	---

One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape

2	Under surface beds	m ²	20
---	--------------------	----------------	----

FLOOR AND WALLS SEALERS

Secomastic non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:

3	Around steel windows and door frames.	m	14
---	---------------------------------------	---	----

Carried Forward to Summary of Section No.2

R

BILL NO.6

ROOF COVERINGS

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes

PROFILED METAL SHEETING AND ACCESSORIES

0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)

1	Allow the Provisional Amount of R 10 000.00 (Ten Thousand Rand) for supply and installation of roof sheeting	Item	1
---	--	------	---

Sundries

2	12" Thermal resistance sisalation laid on purlins	m ²	34
---	---	----------------	----

RAINWATER DISPOSAL

Aluzink seamless metal gutters:

3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	8
---	--	---	---

4	Extra over for closed ends	No	4
---	----------------------------	----	---

5	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	6
---	---	---	---

6	Extra over rainwater pipe for eaves offset	No	4
---	--	----	---

7	Ditto ,for shoe	No	2
---	-----------------	----	---

Carried Forward to Summary of Section No.2

R

BILL NO.7

CARPENTRY AND JOINERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ROOFS, ETC.

The following in pre-fabricated roof trusses manufactured from "CCA Tanalith" pre-treated wrought softwood

- | | | | |
|---|--|------|---|
| 1 | Allow the Provisional Amount of R 8 000.00 (Eight Thousand Rand) for supply and complete installation of roof trusses including all necessary bracing, gangboarding, purlins, splayed eaves purlins, wall plates, etc. | Item | 1 |
|---|--|------|---|

Sundries

- | | | | |
|---|--|----------------|----|
| 2 | Two coats creosote on sawn timbers | m ² | 40 |
| 3 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 20 |
| 4 | Hurricane clips | No | 48 |

EAVES, VERGES, ETC.

Pressed fibre-cement

- | | | | |
|---|--|---|----|
| 5 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 38 |
|---|--|---|----|

DOORS, ETC.

Wrought meranti doors hung to steel frames

- | | | | |
|---|--|----|---|
| 6 | 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.2

R

BILL NO.8

IRONMONGERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CATCHES, CABIN, HOOKS, ETC

Approved

- | | | | |
|---|--|----|---|
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 2 |
|---|--|----|---|

LOCKS

Approved

- | | | | |
|---|----------------------------|----|---|
| 2 | Four lever mortice lockset | No | 2 |
|---|----------------------------|----|---|

DOORSTOPS

Approved

- | | | | |
|---|--|----|---|
| 3 | 38mm Diameter rubber door stop plugged | No | 2 |
|---|--|----|---|

LETTERS, NAMEPLATES, ETC.

Union or similar approved

- | | | | |
|---|--|----|---|
| 4 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 2 |
|---|--|----|---|

BATHROOM FITTINGS

Kimberley-Clarkor Simlilar

- | | | | |
|---|---|----|---|
| 5 | Kimberly Clark SQ2 code 405607B white lockable toilet roll holder | No | 6 |
|---|---|----|---|

Carried Forward to Summary of Section No.2

R

BILL NO.9

METALWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

PRESSED STEEL DOOR FRAMES

1,6mm Double rebated frames suitable for one brickwalls

1	Frame for door 813 x 2032mm high	No	2
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STEEL WINDOWS, DOORS, ETC

2	Window type NE1, 533 x 654mm high including burglar bars	No	6
---	--	----	---

3	Window type NE 7,1022 x 654mm high including burglar bars	No	2
---	---	----	---

WELDED SCREENS, GATES, ETC

Steel gates and frames

4	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	2
---	---	----	---

Carried Forward to Summary of Section No.2

R

BILL NO. 10

PLASTERING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CEMENT SCREEDS TO CONCRETE

Screeds to steel trowelled, on concrete:

1	30mm thick on floors	m ²	32
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INTERNAL PLASTER

Cement plaster on brickwork or blockwork

2	On pits walls	m ²	46
---	---------------	----------------	----

FLOOR AND WALLS SEALERS

Minimum two coats approved epoxy coat:

3	On screed	m ²	32
---	-----------	----------------	----

4	On internal textured plaster walls and floors in pit	m ²	56
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Carried Forward to Summary of Section No.2

R

BILL NO. 11

PLUMBING AND DRAINAGE (PROVISIONAL)

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ENVIRO-LOO TOILET SYSTEMS

1	Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	2
2	Allow the provisional sum of R 80 000 for complete installation of Enviroloo system	Item	1
3	Profit and attendance on above item	Item	1

FITTINGS

4	19mm chrome plated push button taps to wash troughs	No	4
---	---	----	---

Carried Forward to Summary of Section No.2

R

BILL NO. 12

GLAZING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

GLAZING TO STEEL WITH PUTTY

6.38mm Obscure safety glass

1	Panes not exceeding 0,1 m2	m ²	4
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Carried Forward to Summary of Section No.2

R

BILL NO. 13

PAINTWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ON FIBRE-CEMENT

Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint

1	On fascias and barge boards	m ²	14
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ON WOOD

Undercoat and minimum 2 coat gloss enamel

2	On doors (External)	m ²	10
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ON METAL

Undercoat and minimum 2 coat gloss enamel

3	On door frames	m ²	4
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4	On gates (Measured over the full flat area of both sides)	m ²	6
---	---	----------------	---

5	On gutters and down pipes	m	4
---	---------------------------	---	---

Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel

6	On windows with burglar bars	m ²	8
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Carried Forward to Summary of Section No.2

R

SUMMARY (BUILDING WORKS - GR3 x 2)

1	EARTHWORKS	Page	67
2	CONCRETE, FORMWORK AND REINFORCEMENT	Page	69
3	MASONRY	Page	72
4	WATERPROOFING	Page	73
5	ROOF COVERINGS	Page	74
6	CARPENTRY AND JOINERY	Page	75
7	IRONMONGERY	Page	76
8	METALWORK	Page	77
9	IN SITU FINISHES	Page	78
10	PLUMBING AND DRAINAGE	Page	79
11	GLAZING	Page	80
12	PAINTWORK	Page	81

Carried to Final Summary

R

BUILDING WORKS - GR5

ITEM NO	DESCRIPTION	QUANTITY	RATE	AMOUNT
	SECTION 1			
	<u>BILL NO.1</u>			
	<u>EARTHWORKS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>SITE CLEARANCE</u>			
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. m ²	105		
2	Stripping average 100mm thick layer of top soil and stockpiling on site m ²	44		
	<u>EXCAVATION,FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches m ³	5		
4	Pit m ³	19		
5	For aprons thickening m ³	1		
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
6	Soft rock m ³	1		
7	Hard rock m ³	2		
	<u>Extra over all excavations for carting away:</u>			
8	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor m ³	20		
	<u>Risk of collapse of excavations</u>			
9	Sides of trench and hole excavation not exceeding 1,5m deep. m ²	37		
	Carried Forward			R

Brought Forward			R
<u>Keeping excavations free of water.</u>			
10	Keeping excavations free of water other than subterranean water	Item	1
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>			
11	Under floors, steps, pavings, etc.	m ³	5
12	Backfilling to trenches, holes, etc.	m ³	8
<u>Compaction of surfaces</u>			
13	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m ²	17
14	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	m ²	12
15	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	m ²	12
<u>Prescribed density tests on filling</u>			
16	Modified AASHTO Density tests	No	5
<u>SOIL POISONING</u>			
<u>Soil insecticide</u>			
17	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.	m ²	17
18	To bottom of concrete aprons	m ²	22
19	To bottoms and sides of trenches, etc.	m ²	24
Carried Forward to Summary of Section No.2			R

BILL NO.3

CONCRETE, FORMWORK AND REINFORCEMENT

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

UNREINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

1	Strip footings	m ³	2
2	Ditto, but surface bed in pit	m ³	2
3	2Aprons cast in panels	m ³	2
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	1
5	Thickening down apron on edge 110mm deep x 200mm wide	m	1

REINFORCED CONCRETE, ETC

25Mpa/19mm Concrete

6	Slabs	m ³	2
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a wood float

7	Aprons and pavings to falls	m ²	25
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TEST CUBES

8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	5
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Finishing top surfaces of concrete smooth with a steel trowel

9	Surface beds, slabs, etc.	m ²	20
---	---------------------------	----------------	----

Carried Forward

R

		Brought Forward	R
<u>FORMWORK</u>			
<u>Rough formwork to sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	25
<u>Permanent formwork to soffits:</u>			
11	Slabs propped up not exceeding 1.5m high	m ²	3
12	Leave or form 500mm diameter opening in top of floor slab	No	5
<u>REINFORCEMENT</u>			
<u>Mesh Reinforcement (measure nett)</u>			
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m ²	32
Carried Forward to Summary of Section No.2			R

BILL NO.4

BRICKWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

BRICKWORK

Sizes in descriptions

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

Hollow walls etc

Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.

Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.

User note: The above preamble generally applies for works in hot and humid coastal areas

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

Carried Forward

R

Brought Forward			R
<u>SAMPLES</u>			
Samples of all masonry building units, except those for walls 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 described as "load bearing", shall consist of a minimum of 6			
<u>FOUNDATIONS</u>			
Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar			
1	One brick walls	m ²	5
2	One brick walls in pit	m ²	30
3	4Half brick corbelling in pit	m	30
<u>FACE BRICKWORK</u>			
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
4	Extra over brickwork for face brickwork in foundation	m ²	4
<u>SUPERSTRUCTURE</u>			
<u>FACE BRICKWORK</u>			
<u>Face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
5	Half brickwork for face brick walls pointed both sides	m ²	4
6	One brickwork for face brick walls pointed both sides	m ²	56
7	Extra over brickwork for face brickwork in beamfilling	m ²	3
8	Fair raking and cutting	m	11
Carried Forward			R

Brought Forward		R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>		
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit m	6
10	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle m	6
11	Fair cutting and fitting around pipe not exceeding 100mm diameter. No	11
<u>BRICKWORK SUNDRIES</u>		
<u>Brick reinforcement</u>		
12	75mm Wide reinforcement built in horizontally m	73
13	150mm Wide reinforcement built in horizontally m	163
<u>Turning pieces</u>		
14	220mm Wide turning piece to lintel etc m	6
<u>Galvanised wire ties etc</u>		
15	6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork No	14
<u>Prestressed fabricated lintels</u>		
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m m	11
<u>Ventillation bricks</u>		
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze No	7
Carried Forward to Summary of Section No.2		R

BILL NO.5

WATERPROOFING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

DAMP-PROOFING OF WALLS AND FLOORS

One layer 375mm micron embossed damp proof course

1	In walls	m ²	4
---	----------	----------------	---

One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape

2	Under surface beds	m ²	17
---	--------------------	----------------	----

FLOOR AND WALLS SEALERS

Secomastic non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:

3	Around steel windows and door frames.	m	23
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Carried Forward to Summary of Section No.2

R

BILL NO.6

ROOF COVERINGS

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes

PROFILED METAL SHEETING AND ACCESSORIES

0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)

1	Allow the Provisional Amount of R6 000.00 (Six Thousand Rand) for supply and installation of roof sheeting	Item	1
---	--	------	---

Sundries

2	12" Thermal resistance sisalation laid on purlins	m ²	20
---	---	----------------	----

RAINWATER DISPOSAL

Aluzink seamless metal gutters:

3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	6
---	--	---	---

4	Extra over for closed ends	No	2
---	----------------------------	----	---

5	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	3
---	---	---	---

6	Extra over rainwater pipe for eaves offset	No	2
---	--	----	---

7	Ditto ,for shoe	No	1
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Carried Forward to Summary of Section No.2

R

BILL NO.7

CARPENTRY AND JOINERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ROOFS, ETC.

The following in pre-fabricated roof trusses manufactured from "CCA Tanalith" pre-treated wrought softwood

- | | | | |
|---|---|------|---|
| 1 | Allow the Provisional Amount of R4 500.00 (Four Thousand Five Hundred Rand) for supply and complete installation of roof trusses including all necessary bracing, gangboarding, purlins, splayed eaves purlins, wall plates, etc. | Item | 1 |
|---|---|------|---|

Sundries

- | | | | |
|---|--|----------------|----|
| 2 | Two coats creosote on sawn timbers | m ² | 26 |
| 3 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 14 |
| 4 | Hurricane clips | No | 24 |

EAVES, VERGES, ETC.

Pressed fibre-cement

- | | | | |
|---|--|---|----|
| 5 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 23 |
|---|--|---|----|

DOORS, ETC.

Wrought meranti doors hung to steel frames

- | | | | |
|---|--|----|---|
| 6 | 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 | 1 |
|---|--|----|---|

Carried Forward to Summary of Section No.2

R

BILL NO.8

IRONMONGERY

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CATCHES, CABIN, HOOKS, ETC

Approved

- | | | | |
|---|--|----|---|
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 1 |
|---|--|----|---|

LOCKS

Approved

- | | | | |
|---|-----------------------------|----|---|
| 2 | Three lever mortice lockset | No | 1 |
|---|-----------------------------|----|---|

DOORSTOPS

Approved

- | | | | |
|---|--|----|---|
| 3 | 38mm Diameter rubber door stop plugged | No | 1 |
|---|--|----|---|

LETTERS, NAMEPLATES, ETC.

Union or similar approved

- | | | | |
|---|--|----|---|
| 4 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 1 |
|---|--|----|---|

BATHROOM FITTINGS

Kimberley-Clarkor Simlilar

- | | | | |
|---|---|----|---|
| 5 | Kimberly Clark SQ2 code 405607B white lockable toilet roll holder | No | 5 |
|---|---|----|---|

Carried Forward to Summary of Section No.2

R

BILL NO.9

METALWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

PRESSED STEEL DOOR FRAMES

1,6mm Double rebated frames suitable for one brickwalls

1	Frame for door 813 x 2032mm high	No	1
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STEEL WINDOWS, DOORS, ETC

2	Window type NE1, 533 x 654mm high including burglar bars	No	5
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3	Window type NE 7,1022 x 654mm high including burglar bars	No	2
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WELDED SCREENS, GATES, ETC

Steel gates and frames

4	Purpose made square hallow section mild steel security gate, size 813 x 2032mm High	No	1
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Carried Forward to Summary of Section No.2

R

BILL NO. 10

PLASTERING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

CEMENT SCREEDS TO CONCRETE

Screeds to steel trowelled, on concrete:

1	30mm thick on floors	m ²	17
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INTERNAL PLASTER

Cement plaster on brickwork or blockwork

2	On pits walls	m ²	49
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FLOOR AND WALLS SEALERS

Minimum two coats approved epoxy coat:

3	On screed	m ²	17
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4	On internal textured plaster walls and floors in pit	m ²	49
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Carried Forward to Summary of Section No.2

R

BILL NO. 11

PLUMBING AND DRAINAGE (PROVISIONAL)

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ENVIRO-LOO TOILET SYSTEMS

1	Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	1
2	Allow the provisional sum of R70 000 for complete installation of Enviroloo system	Item	1
3	Profit and attendance on above item	Item	1

FITTINGS

4	19mm chrome plated push button taps to wash troughs	No	2
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Carried Forward to Summary of Section No.2

R

BILL NO. 12

GLAZING

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

GLAZING TO STEEL WITH PUTTY

6.38mm Obscure safety glass

1	Panes not exceeding 0,1 m2	m ²	3
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Carried Forward to Summary of Section No.2

R

BILL NO. 13

PAINTWORK

SUPPLEMENTARY PREAMBLES

For preambles see "Specifications of materials and methods to be used - PW 371"

ON FIBRE-CEMENT

Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint

1	On fascias and barge boards	m ²	6	65.00	390.00
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ON WOOD

Undercoat and minimum 2 coat gloss enamel

2	On doors (External)	m ²	4		
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ON METAL

Undercoat and minimum 2 coat gloss enamel

3	On door frames	m ²	2		
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4	On gates (Measured over the full flat area of both sides)	m ²	3		
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5	On gutters and down pipes	m	3		
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Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel

6	On windows with burglar bars	m ²	6		
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Carried Forward to Summary of Section No.2

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SUMMARY (BUILDING WORKS - GR5)

1	EARTHWORKS	Page	85
2	CONCRETE, FORMWORK AND REINFORCEMENT	Page	87
3	MASONRY	Page	90
4	WATERPROOFING	Page	91
5	ROOF COVERINGS	Page	92
6	CARPENTRY AND JOINERY	Page	93
7	IRONMONGERY	Page	94
8	METALWORK	Page	95
9	IN SITU FINISHES	Page	96
10	PLUMBING AND DRAINAGE	Page	97
11	GLAZING	Page	98
12	PAINTWORK	Page	99

Carried to Final Summary

R

PROVISIONAL SUMS

ITEM NO	DESCRIPTION	QUANTITY	RATE	AMOUNT
	<p><u>PROVISIONAL SUMS</u></p> <p>All the provisional sums cover supply of material and equipment and installation where applicable by firms of specialists.</p> <p>Provisional sums are net and do not include builder's discount, but the Tenderer may allow under "Profit" items any profit he considers necessary.</p> <p>The Tenderer is referred to Clause 87.1 and 87.2 in the "Preliminaries" section for the definition and adjustment of "General Attendance".</p> <p><u>N.B ALL PROVISIONAL WORKS ARE SUBJECT TO RE-MEASUREMENTS. THE PROVISIONAL WORK SHALL BE PAID AS PER THE WORK DONE</u></p> <p>DEMOLITION OF EXISTING TOILET STRUCTURES</p> <p>1 Allow the Provisional Amount of R 6 000.00 (Six Thousand Rand) NET for demolition of delapittd toilets structure Item 1</p> <p>REFURBISHMENT OF ENVIRO LOO TOILETS</p> <p>2 Allow the Provisional Amount of R 250 000.00 for refurbishment of enviroloo toilets Item 1</p> <p>REFURBISHMENT OF EXISTING BOREHOLE</p> <p>3 Allow the Provisional Amount of R45 000.00 (Forty Five Thousand Rand) for refurbishment of existing borehole Item 1</p> <p>WATER TANK STORAGE</p> <p>4 Allow the Provisional Amount of R 45 000.00 (Forty Five Thousand Rand) for supply and installation of 1 x 10 000 litres water tank and 6m elevated water tank stand Item 1</p> <p>5 Profit and attendance Item 1</p> <p>SEPTIC TANK</p> <p>6 Allow the Provisional Amount of R130 000.00 (One Hundred and Thirty Thousand Rand) for constrution of septic tank and french drain Item 1</p> <p>Carried to Final Summary</p>			
				R

FINAL SUMMARY

ITEM NO	DESCRIPTION	PAGE	AMOUNT
	<u>FINAL SUMMARY</u>		
1	PRELIMINARIES AND GENERAL	26	
2	BILDING WORKS - M2	45	
5	BUILDING WORKS - F6	64	
11	BUILDING WORKS - GR 3 x 2	82	
13	BUILDING WORKS - GRADE R 5	100	
14	PROVISIONAL SUMS	102	
	SUB TOTAL (A)		
	Provide 5% (FIVE PERCENT) on Sub-total (A) as contingency to be deducted in whole or in part if not required		
	Provide 18% (EIGHTEEN PERCENT) on Sub-total (A) for professional fees		
	SUB TOTAL (B)		
	Add VAlue Added Tax @ 15%		
	Total		R _____