



**human settlements**

Department:  
Human Settlements  
**REPUBLIC OF SOUTH AFRICA**

**BILLS OF QUANTITIES**  
**FOR**  
**CONSTRUCTION OF CRU TYPOLOGIES**  
**FOR**  
**35m<sup>2</sup> UNITS**  
**THE DEPARTMENT OF HUMAN SETTLEMENTS – KWAZULU**  
**NATAL**

**SEPTEMBER 2014**

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**NAME OF TENDERER:**

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## **SECTION NO. 1**

### **PRELIMINARIES**

#### **(CPAP WORK GROUP NO. 190 UNLESS OTHERWISE STATED)**

Any reference to the words 'Tender' or 'Tenderer' herein and/or in any other documentation shall be construed to have the same meaning as the words 'Bid' or 'Bidder'

### **PRELIMINARIES**

The JBCC Principal Building Agreement Edition 5.0 Code 2101, July 2007 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked. 'N/A' signifying 'Not Applicable'.

The ASAQs Preliminaries (November 2007 edition) published by the Association of South African Quantity Surveyors for use with the said JBCC Principal Building Agreement shall be deemed to be incorporated in these bills of quantities

### **PRICING OF PRELIMINARIES**

Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related by insertion of 'F', 'V' or 'T' and the respective amounts in the 'Rate' column with the total extended to the 'Amount' column.

Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.

## **SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT**

### **DEFINITIONS**

1 A1 DEFINITIONS AND INTERPRETATION Clause 1.0

F ..... V ..... T .....

Item

### **OBJECTIVE AND PREPARATION**

2 A2 OFFER, ACCEPTANCE AND PERFORMANCE Clause 2.0

F ..... V ..... T .....

Item

3 A3 DOCUMENTS Clause 3.0

F ..... V ..... T .....

Item

Clause 3.7 is amended by the addition of the following: The contractor shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site, to which the employer, principal agent and agents shall have access at all times

4 A4 DESIGN RESPONSIBILITY Clause 4.0

F ..... V ..... T .....

Item

Carried To Section Summary

R

Section No. 1

Bill No. 1

Preliminaries

5	A5 EMPLOYER'S AGENTS Clause 5.0 F ..... V ..... T ..... Clause 5.1.2 is amended to include clauses 32.6.3, 34.3 and 34.4	Item
6	A6 CONTRACTOR'S SITE REPRESENTATIVE Clause 6.0 F ..... V ..... T .....	Item
7	A7 COMPLIANCE WITH LAWS AND REGULATIONS Clause 7.0 F ..... V ..... T ..... Note: The provisions herein include inter alia, compliance with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), and in particular with Regulation 5(1) requiring the compilation of a health and safety plan, as well as Regulation 6(1) requiring the appointment of a construction supervisor See also clause C5 of Section C - Specific Preliminaries	Item
8	A8 WORKS RISK Clause 8.0 F ..... V ..... T .....	Item
9	A9 INDEMNITIES Clause 9.0 F ..... V ..... T ..... 42.4.1 Waiver of the contractor's lien or right of continuing possession is required: N/A	Item
10	A10 GENERAL INSURANCES Clause 10.0 F ..... V ..... T .....	Item
11	B3.1 Defined works area F ..... V ..... T ..... Clause 10.0 is amended by the addition of the following clauses: 10.5 Damage to the Works (a) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary (b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works (c) The employer shall carry the risk of damage to or destruction of the works and material paid for by the employer that is the result of the excepted risks as set out in 10.6 (d) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof	Item

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10.6 Injury to Persons or loss of or damage to Properties (a) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable

(b) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable

(c) The contractor shall, upon receiving a contract instruction from the principal agent, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the employer shall be entitled to cause it to be made good and to recover the cost thereof from the contractor or to deduct the same from amounts due to the

(d) The contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the employer for the purpose of executing the works until the issue of the certificate of practical completion

(e) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the contractor shall and will remain adequately insured or insured against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the works has been completed

(f) The contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the works

10.7 High risk insurance In the event of the project being executed in a geological area classified as a 'High Risk Area', that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

10.7.1 Damage to the works The contractor shall, from the commencement date of the works until the date of the certificate of practical completion bear the full risk of and hereby indemnifies and holds harmless the employer against any damage to and/or destruction of the works consequent upon a catastrophic ground movement as mentioned above. The contractor shall take such precautions and security measures and other steps for the protection of the works as he may deem necessary

When so instructed to do so by the principal agent, the contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works, at the contractor's own costs

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10.7.2 Injury to persons or loss of or damage to property The contractor shall be liable for and hereby indemnifies and holds harmless the employer against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

42.4.2 Construction document copies to be supplied to the contractor free of charge: 3 (three)

The contractor shall be liable for and hereby indemnifies the employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

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

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

12 A11 SPECIAL INSURANCES Clause 11.0

Item

F ..... V ..... T .....

13 A12 EFFECTING INSURANCES Clause 12.0

Item

F ..... V ..... T .....

14 A13.0 ASSIGNMENT Clause 13.0

Item

F ..... V ..... T .....

15 A14 SECURITY Clause 14.0

Item

F ..... V ..... T .....

# **EXECUTION**

16 A15 PREPARATION FOR AND EXECUTION OF THE WORKS Clause 15.0

Item

F ..... V ..... T .....

17 A16 SITE AND ACCESS Clause 16.0

Item

F ..... V ..... T .....

18 A17 CONTRACT INSTRUCTIONS Clause 17.0

Item

F ..... V ..... T .....

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19	B3.2 Geotechnical investigation F ..... V ..... T .....	Item
20	A18 SETTING OUT OF THE WORKS Clause 18.0 F ..... V ..... T .....	Item
21	A19 TEMPORARY WORKS AND PLANT Clause 19.0 F ..... V ..... T .....	Item
22	A20 NOMINATED SUB-CONTRACTORS Clause 20.0 F ..... V ..... T .....	Item
23	A21 SELECTED SUBCONTRACTORS Clause 21.0 F ..... V ..... T .....	Item
24	A22 EMPLOYER'S DIRECT CONTRACTORS Clause 22.0 F ..... V ..... T .....	Item
25	A23 CONTRACTOR'S DOMESTIC SUBCONTRACTORS Clause 23. F ..... V ..... T .....	Item
<b><u>COMPLETION</u></b>		
26	A24 PRACTICAL COMPLETION Clause 24.0 F ..... V ..... T .....	Item
27	A25 WORK'S COMPLETION Clause 25.0 F ..... V ..... T .....	Item
28	A26 FINAL COMPLETION Clause 26.0 F ..... V ..... T .....	Item
29	A27 LATENT DEFECTS LIABILITY PERIOD Clause 27.0 F ..... V ..... T .....	Item
30	A28 SECTIONAL COMPLETION Clause 28.0 F ..... V ..... T .....	Item
31	A29 REVISION OF DATE FOR PRACTICAL COMPLETION Clause 29.0 F ..... V ..... T .....	Item
32	A30 PENALTY FOR NON-COMPLETION Clause 30.0 F ..... V ..... T .....	Item
<b><u>PAYMENT</u></b>		
33	A31 INTERIM PAYMENT TO THE CONTRACTOR Clause 31.0 F ..... V ..... T .....	Item
34	A32 ADJUSTMENT TO THE CONTRACT VALUE Clause 32.0 F ..... V ..... T .....	Item
35	A33 RECOVERY OF EXPENSE AND LOSS Clause 33.0 F ..... V ..... T .....	Item
36	A34 FINAL ACCOUNT AND FINAL PAYMENT Clause 34.0 F ..... V ..... T .....	Item
37	A35 PAYMENT TO OTHER PARTIES Clause 35.0 F ..... V ..... T .....	Item

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# **TERMINATION**

- 38 A36 TERMINATION BY EMPLOYER - CONTRACTOR'S DEFAULT  
Clause 36.0  
F ..... V ..... T .....
- 39 A37 TERMINATION BY EMPLOYER - LOSS AND DAMAGE Clause 37.0  
F ..... V ..... T .....
- 40 A38 TERMINATION BY CONTRACTOR - EMPLOYER'S DEFAULT Clause 38.0  
F ..... V ..... T .....
- 41 A39 TERMINATION - CESSATION OF THE WORKS Clause 39.0  
F ..... V ..... T .....
- 42 A40 DISPUTE SETTLEMENT Clause 40.0  
F ..... V ..... T .....

# **CONTRACT AGREEMENT**

- 43 A41 POST TENDER PROVISION Clause 41.0  
F ..... V ..... T .....

# **CONTRACT DATA**

## **A42.1 CONTRACTING AND OTHER PARTIES**

- 42.1.1 Employer:  
42.1.2 Principal Agent:  
42.1.3 Agent (1):  
42.1.4 Agent (2):  
42.1.6 Agent (3):

## **A42.2 CONTRACT AND SITE INFORMATION**

- 42.2.1 The law applicable to this agreement:  
42.2.2 Works identification:  
42.2.3 Site Description:  
42.2.4 Possession of the site is to be given on:  
42.2.5 Period for the commencement of the works after the contractor takes possession of the site: (working days)  
42.2.6 Completion of the works in sections is required (yes/no):  
42.2.7 Waiver of the contractor's lien or right of continuing possession is required (yes/no):  
42.2.8 Defined restriction to the site area. Where 'yes' the specific requirements are described below or detailed in the contract document (yes/no):  
42.2.9 Geotechnic investigation of the site has been undertaken. Where 'yes' the results are included in the contract document (yes/no):

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42.2.10 Existing premises will be occupied. Where 'yes' the specific requirements are described below or detailed in the contract document (yes/no): Yes

42.2.11 Provision of temporary services is required. Where 'yes' the specific requirements are described below or detailed in the contract document (yes/no):

42.2.12 Protection of existing trees and shrubs is required. Where 'yes' the specific requirements are described below or detailed in the contract document (yes/no):

### **A42.3 INSURANCES AND SECURITIES**

### **A42.4 PRACTICAL COMPLETION DATES AND PENALTIES**

### **A42.5 CONTRACTING PARTY**

### **A42.6 SECURITIES**

### **A42.7 PAYMENT AND ADJUSTMENT OF PRELIMINARIES**

### **A42.8 EMPLOYERS CHANGES TO JBCC STANDARD DOCUMENTS**

### **A42.9 THE TENDER**

## **SECTION B: JBCC PRELIMINARIES**

### **B1.0 DEFINITIONS AND INTERPRETATION**

44 B1.1 Definitions and interpretation

F ..... V ..... T .....

### **B2.0 DOCUMENTS**

45 B2.1 Checking of documents

F ..... V ..... T .....

46 B2.2 Provisional bills of quantities

F ..... V ..... T .....

47 B2.3 Availability of construction documentation

F ..... V ..... T .....

48 B2.4 Interests of agents

F ..... V ..... T .....

49 B2.5 Priced documents

F ..... V ..... T .....

50 B2.6 Tender submission

F ..... V ..... T .....

### **B3.0 THE SITE**

42.3.2 Supplementary insurance is required: Yes

## **B4.0 MANAGEMENT OF CONTRACT**

51 B4.1 Management of the works

F ..... V ..... T .....

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52	B4.2 Programme for the works F ..... V ..... T .....	Item
53	B4.3 Progress meetings F ..... V ..... T .....	Item
54	B4.4 Technical meetings F ..... V ..... T .....	Item
55	B3.3 Inspection of the site F ..... V ..... T ..... 42.3.3 Public liability insurance to be effected by: Contractor For the amount of: R5 000 000.00 With a deductible of: To be determined by contractor	Item
56	B4.5 Labour and plant records F ..... V ..... T ..... <b><u>B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</u></b>	Item
57	B5.1 Samples of materials F ..... V ..... T .....	Item
58	B5.2 Workmanship sample F ..... V ..... T .....	Item
59	B5.3 Shop drawings F ..... V ..... T .....	N/A
60	B5.4 Compliance with manufacturer's instructions F ..... V ..... T .....	Item
	<b><u>B6.0 TEMPORARY WORKS AND PLANT</u></b>	
61	B6.1 Deposits and fees F ..... V ..... T .....	Item
62	B6.2 Enclosure of the works F ..... V ..... T .....	Item
63	B6.3 Advertising F ..... V ..... T .....	Item
64	B6.4 Plant, equipment, sheds and offices F ..... V ..... T .....	Item
65	B6.5 Main notice board F ..... V ..... T .....	Item
66	B6.6 Subcontractors' notice board F ..... V ..... T .....	Item
	<b><u>B7.0 TEMPORARY SERVICES</u></b>	
67	B7.1 Location F ..... V ..... T .....	Item
68	B7.2 Water F ..... V ..... T .....	Item

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	Tenderers shall complete the Site Inspection Certificate included in the tender documents (refer Returnable Schedules) and return the same with the tender submission.	
	42.3.4 Support insurance to be effected by the Employer N/A	
69	B7.3 Electricity F ..... V ..... T .....	Item
70	B7.4 Telecommunication facilities F ..... V ..... T .....	Item
71	B7.5 Ablution facilities F ..... V ..... T .....	Item
	<b><u>B8.0 PRIME COST AMOUNTS</u></b>	
72	B8.1 Responsibility for prime cost amounts F ..... V ..... T .....	Item
	<b><u>B9.0 ATTENDANCE ON N/S SUBCONTRACTORS</u></b>	
73	B9.1 General attendance F ..... V ..... T .....	Item
74	B9.2 Special attendance F ..... V ..... T .....	Item
75	B9.3 Commissioning - fuel, water and electricity F ..... V ..... T .....	Item
	<b><u>B10.0 FINANCIAL ASPECTS</u></b>	
76	B10.1 Statutory taxes, duties and levies F ..... V ..... T .....	Item
77	B10.2 Payment for preliminaries F ..... V ..... T .....	Item
78	B10.3 Adjustment of preliminaries F ..... V ..... T .....	Item
79	B10.4 Payment certificate cash flow F ..... V ..... T .....	Item
	<b><u>B11.0 GENERAL</u></b>	
80	B11.1 Protection of the works F ..... V ..... T .....	Item
81	B3.4 Existing premises occupied F ..... V ..... T .....	Item
82	B11.2 Protection / isolation of existing / sectionally occupied works F ..... V ..... T .....	Item
83	B11.3 Security of the works F ..... V ..... T .....	Item
84	B11.4 Notice before covering work F ..... V ..... T .....	Item

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85	B11.5 Disturbance	Item
	F ..... V ..... T .....	
86	B11.6 Environmental disturbance	Item
	F ..... V ..... T .....	
87	B11.7 Works cleaning and clearing	Item
	F ..... V ..... T .....	
88	B11.8 Vermin	Item
	F ..... V ..... T .....	
89	B11.9 Overhand work	Item
	F ..... V ..... T .....	
90	B11.10 Instruction manuals and guarantees	Item
	F ..... V ..... T .....	
91	B11.11 As built information	Item
	F ..... V ..... T .....	
92	B11.12 Tenant installations	N/A
	F ..... V ..... T .....	

## **B12.0 SCHEDULE OF VARIABLES**

### **B12.1 Pre-tender information:**

Information necessary for making choices and completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder. Where no information is given it shall mean that either no details or specific requirements are available. Where any item is not relevant to this specific contract, such item is marked N/A (signifying 'Not Applicable').

12.1 PRE TENDER INFORMATION 12.1.1 Provisional Bills of Quantities [2.2] The quantities are provisional : YES

12.1.2 Availability of construction documentation [2.3] Construction of documentation is complete: No

93	B3.5 Previous work - dimensional accuracy	N/A
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F ..... V ..... T .....

12.1.3 Interest of agents [2.4] Details: N/A

12.1.4 Defined works area [3.1] Details: The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent at the compulsory site inspection meeting if applicable or on handing over of the site.

12.1.5 Geotechnical investigation [3.2] Details: The report is annexed to this document. Not Applicable

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12.1.6 Existing premises occupied [3.4] Specific requirements: The contractor, where executing repairs and renovations to existing classroom blocks that are in use and occupied, shall be limited to executing works in three classrooms at any given time. These classrooms shall be completed to the stage of first delivery before further commencing execution of works on other existing classrooms. The contractor shall make provision in his program for relocating the occupants of the building to completed sections before commencement with work on subsequent sections. The contractor shall in liaison with the occupants and as directed by the principal agent, move, temporarily store, protect, clean and later place all loose furniture and fittings, equipment, etc in their original position as necessary for the execution of the works. The contractor shall provide, maintain and remove on completion a temporary container for the proper storage of furniture, etc of at least three classrooms during the execution of the works.

12.1.7 Previous work - dimensional accuracy [3.5] Details: N/A

12.1.8 Previous work - defects [3.6] Details: N/A

12.1.9 Services - known [3.7] Details: Existing known services on the site are shown on drawings or will be pointed out on the site by the principal agent.

12.1.10 Protection of trees [3.9] Specific requirements:

12.1.11 Inspection of adjoining properties [3.11] Specific requirements:

12.1.12 Enclosure of the works [6.2] Specific requirements:

12.1.13 Offices [6.4.3] Specific requirements: The office accommodation for meetings held on site shall be insulated and ventilated, provided with electric lighting and fitted with suitable table, chairs, etc to accommodate at least twelve people.

12.1.14 Main notice board [6.5] Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3 x 3m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering.

12.1.15 Subcontractors' notice board [6.6] Specific requirements: NO

12.1.16 Water [7.2] Option A (by contractor) YES Option B (by employer - free of charge) NO Option C (by employer - metered) NO

12.1.17 Electricity [7.3] Option A (by contractor) YES Option B (by employer - free of charge) NO Option C (by employer - metered) NO

12.1.18 Telecommunications [7.4] Telephone YES Facsimile YES E-mail YES

94 B3.6 Previous work - defects

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N/A

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12.1.19 Ablution facilities [7.5] Option A (by contractor) YES Option B (by employer) NO

12.1.20 Protection of existing/sectionally occupied works [11.2] Protection is required YES

12.1.21 Special attendance [9.2] Subcontractor (1) details: N/A  
Subcontractor (2) details: N/A Subcontractor (3) details: N/A Subcontractor (4) details: N/A

12.1.22 Protection of works [11.1] Specific requirements:

12.1.23 Disturbance [11.5] Specific requirements: The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent. Noise and dust due to repairs and renovations to existing classrooms, etc shall be contained within the areas executed at any one time and workers shall not disturb occupants of adjoining classrooms, etc.

12.1.24 Environmental disturbance [11.6] Specific requirements:

### **SECTION C: SPECIFIC PRELIMINARIES**

**Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item**

It is required of the Contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under items B10.1 to B10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained. The Contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the Representative/ Agent, notwithstanding the provisions of Clause A23 of 'Section 1: Preliminaries (Part A)' or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of

### **C1 CONTRACT DRAWINGS**

\*Select relevant paragraph and delete whichever is not applicable depending on whether the contract is based on bills of quantities or lump sum document  
\*The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of works and the manner in which they are to be executed. \*A full set of drawings is issued with the tender documents indicating the full scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed. Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the principal agent

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## **C2 GENERAL PREAMBLES**

The document 'Specification of Materials and Methods to be used (PW371)' is obtainable on request from the head office and all regional offices of the Department, and shall be read in conjunction with the Bills of Quantities / Lump Sum Document and be referred to for the full descriptions of work to be done and materials to be used.

## **C3 TRADES NAMES**

Wherever a trade name for any product has been described in the Bills of Quantities / Lump Sum Document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the Principal Agent being obtained prior the closing date for submission of tenderers. If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for.

## **C4 IMPORTED MATERIALS AND EQUIPMENT**

Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment (T2.2q) to be completed by tenderer) Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be executed from the Contract Price Adjustment Provisions (if applicable)

## **C5 VIEWING THE SITE IN SECURITY AREAS**

The site is situated in a security area and the tenderer must arrange with the unit commander or obtain other responsible officer to obtain permission to enter the site for tendering purposes.

## **C6 COMMENCEMENT OF WORKS IN SECURITY AREAS**

As the Works falls within a security area the Contractor must give the unit commander or other responsible officer notice before commencement of works. Should the Contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the Contractor's account

## **C7 ENTRANCE PERMITS TO SECURITY AREAS**

As the Works falls within a security area the Contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Defense Force, Police or Chief Security Officer

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## **C8 SECURITY CHECK OF PERSONNEL**

The Principal Agent may require the Contractor to have his personnel and workmen, or a certain number of them, security classified. In the event of the Principal Agent requesting the removal of a person or persons from the Works for the security reasons, the Contractor shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the Works and the Site and/or to any document or information relating to the Works.

## **C9 PROHIBITION ON TAKING OF PHOTOGRAPHS**

In terms of article 119 of the Defense Act, 44 of 1957, it is prohibited to sketch or take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking of photographs except when authorized thereto by or on behalf of the Minister. The same prohibition is also applicable to all correctional institutions in terms of article 44.1(e) of the Correctional Services Act 8 of 1959.

## **C10 HIV/AIDS AWARENESS**

### **C10.1: Awareness Champion**

- 95 Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification

Item

F ..... V ..... T .....

### **C10.2: Awareness Workshops**

- 96 Selection and appointment of competent Service Provider approved by the Representative/Agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of a traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification

Item

F ..... V ..... T .....

### **C10.3: Posters, Booklets, Videos, etc.**

- 97 Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification

Item

F ..... V ..... T .....

### **C10.4: Access To Condoms**

- 98 Provision and maintaining of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification

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	<b><u>C10.5: Monitoring</u></b>	
99	Monitoring HIV/AIDS awareness of workers, providing the Representative/Agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification  F ..... V ..... T .....	Item
	<b><u>C11 HEALTH AND SAFETY SPECIFICATION</u></b>	
	<b><u>C11.1: Awareness Champion</u></b>	
100	Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the Health and Safety Specification  F ..... V ..... T .....	Item
	<b><u>C11.2: Awareness Workshops</u></b>	
101	Selection and appointment of competent Service Provider approved by the Representative/Agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of a traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the Health and Safety Specification  F ..... V ..... T .....	Item
	<b><u>C11.3: Health and Safety Representative</u></b>	
102	Selection and appointment of competent Health and Safety Officer approved by the Representative/Agent, for inspections of the workplace, keeping records and report all findings to the responsible person, all in accordance to the Health and Safety Specification  F ..... V ..... T .....	Item
	<b><u>C11.4: Appointment and Training of a Health and Safety Rep, First Aider &amp; Fire Fighter</u></b>	
103	Allow for training of a health and safety rep, first aider and a fire fighter, all in accordance with the Health and Safety Specification  F ..... V ..... T .....	Item
	<b><u>C11.5: Provision of First Aid Boxes, First Aid Equipment &amp; Fire Fighting Equipment</u></b>	
104	Allow for provision of first aid box, first aid equipment and fire extinguisher all in accordance with the Health and Safety Specification  F ..... V ..... T .....	Item
	<b><u>C11.6: Provision of Personal Protective Equipment (PPE)</u></b>	
105	Allow for provision of PPE all in accordance with the Health and Safety Specification  F ..... V ..... T .....	Item

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**C11.7: Provision of Health and Safety Signage and Posters**

106 Allow for provision of health and safety signage and posters all in accordance with the Health and Safety Specification

F ..... V ..... T .....

**C11.8: Provision of Well Fare Facility**

107 Allow for provision of well fare facility all in accordance with the Health and Safety Specification

F ..... V ..... T .....

**C11.9: Close Out Requirements**

108 The Principal Contractor to provide a consolidated close out Health and Safety File confirming the Health and Safety history of the project through a SHE agent

F ..... V ..... T .....

**MEANING OF TERMS 'TENDER / TENDERER'**

Item

Item

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Preliminaries

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**PRELIMINARIES**  
**SECTION SUMMARY**

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Foundations (provisional)				

	Unit	Quantity	Rate	Amount
<b><u>SITE CLEARANCE, ETC</u></b>				
<b><u>Site clearance</u></b>				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m <sup>2</sup>	196	
<b><u>EXCAVATION, ETC</u></b>				
<b><u>Excavation in earth not exceeding 2m deep</u></b>				
2	Surface trenches	m <sup>3</sup>	75	
3	Reduce levels under surface beds	m <sup>3</sup>	13	
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>				
4	Soft rock	m <sup>3</sup>	4	
5	Hard rock	m <sup>3</sup>	7	
<b><u>Extra over all excavations for carting away</u></b>				
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	36	
<b><u>Risk of collapse of excavations</u></b>				
7	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	150	
<b><u>Keeping excavations free from water</u></b>				
8	Keeping excavations free from mud and all water other than from subterranean sources	Item		
<b><u>FILLING, ETC</u></b>				
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>				
9	Under floors, etc	m <sup>3</sup>	13	
10	Backfilling to trenches, holes, etc	m <sup>3</sup>	39	
<b><u>Earth filling supplied by the contractor compacted to 97% Mod AASHTO density</u></b>				
11	Under floors, etc	m <sup>3</sup>	13	
12	Backfilling to trenches, holes, etc.	m <sup>3</sup>	39	
<b><u>Coarse river sand filling</u></b>				
13	Under floors, etc	m <sup>3</sup>	3	
Carried to Collection				
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		Unit	Quantity	Rate	Amount
<b><u>Compaction of surfaces</u></b>					
14	Compaction of ground surface under floors, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m <sup>2</sup>	86		
<b><u>Prescribed density tests on filling</u></b>					
15	'Modified AASHTO Density' test on fill material	No.	2		
16	'Field Density' test including 'Optimum Moisture Content' (four readings per test) on layer work	No.	2		
<b><u>PROTECTION AGAINST TERMITES</u></b>					
<b><u>Soil insecticide</u></b>					
17	Under floors, etc including forming and poisoning shallow furrows against foundation walls, etc and filling in furrows and ramming	m <sup>2</sup>	86		
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**SECTION NO. 2**  
**STRIP FOOTING FOUNDATIONS 35M2**  
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**FOUNDATIONS (PROVISIONAL)**  
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1	m³	4		
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b> <b><u>25 MPa/19mm concrete</u></b>				
2	m³	30		
3	m³	9		
<b><u>CONCRETE TESTING</u></b>				
4	No.	2		
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		Unit	Quantity	Rate	Amount
<b><u>CONCRETE SUNDRIES</u></b>					
<b><u>SMOOTH FORMWORK</u></b>					
<b><u>Smooth formwork to sides</u></b>					
5	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	15		
<b><u>REINFORCEMENT(Provisional)</u></b>					
6	Y10 High Steel rod reinforcement of varying diameters in foundations (Provisional)	Tonnes	1		
<b><u>Fabric reinforcement</u></b>					
7	Type 193 fabric reinforcement in surface beds (Provisional)	m <sup>2</sup>	86		
				R	
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1	Half brick walls	m <sup>2</sup>	7	
2	One brick walls	m <sup>2</sup>	41	
<b><u>Reinforcement to brickwork</u></b>				
3	Approved high tensile steel brick reinforcement 75 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	37	
4	Approved high tensile steel brick reinforcement 155 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	445	
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**STRIP FOOTING FOUNDATIONS 35M2**  
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<b><u>Drilling</u></b> 'Hard rock' shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives. 'Earth' shall mean all ground other than that classified as 'hard rock' and shall include made-up ground and loose stones or pieces of concrete not exceeding 0,03m3 in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferricite, compact ouklip and material of similar hardness.				
<b><u>Classification of material</u></b> 'Hard rock' shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives. 'Earth' shall mean all ground other than that classified as 'hard rock' and shall include made-up ground and loose stones or pieces of concrete not exceeding 0,03m3 in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferricite, compact ouklip and material of similar hardness.				
<b><u>GUARANTEE AND INSURANCE</u></b>				
<b><u>ESTABLISHMENT</u></b>				
<b><u>Establishment</u></b>				
1	Item			
Transporting to and establishment on site of necessary plant for the execution of the work and removal thereof on completion				
2	Item			
Setting up plant at pile position				
<b><u>PRECAST CONCRETE DRIVEN PILES</u></b>				
<b><u>Precast concrete piles suitable for the following working loads including reinforcement, couplings, etc</u></b>				
3	m	37		
165 Diameter piles suitable for 150kN working load				
<b><u>TEST CUBES</u></b>				
<b><u>Testing</u></b>				
4	No.	37		
Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)				
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	Unit	Quantity	Rate	Amount
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		Unit	Quantity	Rate	Amount
<b><u>SITE CLEARANCE, ETC</u></b>					
<b><u>Site clearance</u></b>					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m <sup>2</sup>	196		
<b><u>EXCAVATION, ETC</u></b>					
<b><u>Excavation in earth not exceeding 2m deep</u></b>					
2	Surface trenches	m <sup>3</sup>	112		
3	Reduce levels under surface beds	m <sup>3</sup>	13		
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>					
4	Soft rock	m <sup>3</sup>	4		
5	Hard rock	m <sup>3</sup>	7		
<b><u>Extra over all excavations for carting away</u></b>					
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	73		
<b><u>Risk of collapse of excavations</u></b>					
7	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	150		
<b><u>Keeping excavations free from water</u></b>					
8	Keeping excavations free from mud and all water other than from subterranean sources	Item			
<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>					
9	Under floors, etc	m <sup>3</sup>	13		
10	Backfilling to trenches, holes, etc	m <sup>3</sup>	39		
<b><u>Earth filling supplied by the contractor compacted to 97% Mod AASHTO density</u></b>					
11	Under floors, etc	m <sup>3</sup>	13		
12	Backfilling to trenches, holes, etc.	m <sup>3</sup>	39		
<b><u>Coarse river sand filling</u></b>					
13	Under floors, etc	m <sup>3</sup>	3		
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1	m³	4		
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b> <b><u>25 MPa/19mm concrete</u></b>				
2	m³	30		
3	m³	9		
<b><u>CONCRETE TESTING</u></b>				
4	No.	2		
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1	Half brick walls	m <sup>2</sup>	7	
2	One brick walls	m <sup>2</sup>	41	
<b><u>Reinforcement to brickwork</u></b>				
3	Approved high tensile steel brick reinforcement 75 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	37	
4	Approved high tensile steel brick reinforcement 155 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	445	
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**PILED FOUNDATIONS 35M2**  
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1	Slab	m <sup>3</sup>	18	
2	Steps and landings	m <sup>3</sup>	8	
3	Vanity slabs, cupboard slabs, cover slabs, etc	m <sup>3</sup>	1	
<b><u>CONCRETE TESTING</u></b>				
4	Making and testing 150 x 150 x 150 mm concrete strength test cube (Provisional)	No.	3	
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		Unit	Quantity	Rate	Amount
<b><u>CONCRETE SUNDRIES</u></b>					
<b><u>SMOOTH FORMWORK</u></b>					
<b><u>Formwork to sides</u></b>					
5	Formwork to sides and soffits of concrete slabs and beams exceeding 3,5m high and not exceeding 5m high above bearing level	m²	140		
6	Edges, rises, ends and reveals not exceeding 300mm high wide	m²	237		
<b><u>MOVEMENT JOINTS, ETC</u></b>					
<b><u>Expansion joints with bitumen impregnated softboard between vertical concrete or brick surfaces</u></b>					
7	10mm Joints not exceeding 300mm high (Provisional)	m	11		
<b><u>REINFORCEMENT(Provisional)</u></b>					
8	Y12 High Tensile Steel rod reinforcement of varying diameters in slabs (Provisional)	Tonnes	3		
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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 2</u></b> <b><u>MASONRY</u></b> <b><u>(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>BRICKWORK</u></b> <b><u>Sizes in descriptions</u></b> <p>Where sizes in descriptions are given in brick units, 'one brick' shall be the length and 'half brick' the width of a brick</p> <b><u>Cement mortar</u></b> <p>Unless otherwise described, all brickwork shall be built in 1:5 cement mortar</p> <b><u>BRICKWORK</u></b> <b><u>Brickwork of NFP bricks</u></b>				
1	Half brick walls	m <sup>2</sup>	84	
2	Half brick walls in beamfilling	m <sup>2</sup>	3	
3	One brick walls	m <sup>2</sup>	442	
<b><u>BRICKWORK SUNDRIES</u></b> <b><u>Bagging and sealing the outer face of the inner skin of walls with 1:5 cement and sand mixture and seal with two coats 'Brixeal' bitumen emulsion waterproofing coating.</u></b>				
4	To walls (Provisional)	m <sup>2</sup>	384	
<b><u>Joint forming material in movement joints</u></b>				
5	12mm Bitumen impregnated fibre board built in vertically between brick skins	m <sup>2</sup>	20	
Carried to Collection			R	
Section No. 4 Bill No. 2 Masonry				

		Unit	Quantity	Rate	Amount
6	12mm Bitumen impregnated fibre board built in vertically through brick walls in foundations (Provisional)	m <sup>2</sup>	1		
	<b><u>Reinforcement to brickwork</u></b>				
7	Approved high tensile steel brick reinforcement 75 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	245		
8	Approved high tensile steel brick reinforcement 155 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	1 427		
	<b><u>Prestressed fabricated lintels</u></b>				
9	110 x 75mm Lintels in lengths not exceeding 3m	m	12		
10	230 x 75mm Lintels in lengths not exceeding 3m	m	86		
	<b><u>Turning pieces</u></b>				
11	110mm Wide turning piece to lintels, etc	m	10		
	<b><u>Galvanised hoop iron cramps, ties, etc</u></b>				
12	2 mm Hoop iron cramp 40 mm wide and 900 mm girth, one end turned up, twice holed and screwed to wood frame and other end built into brickwork	No.	36		
13	32 x 1,6mm Roof tie 1500mm long with one end fixed to timber and other end built into brickwork	No.	26		
	<b><u>Air bricks etc</u></b>				
14	229 x 152mm Glazed clay vermin proof air bricks (Provisional)	No.	36		
	<b><u>FIBRE-CEMENT WINDOW SILLS</u></b>				
	<b><u>Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc</u></b>				
15	65 x 290mm Wide type 'H' sill set sloping and slightly projecting	m	51		
Carried to Collection				R	
Section No. 4					
Bill No. 2					
Masonry					

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35M2 UNITS TOP STRUCTURE  
BILL NO. 2  
MASONRY  
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Masonry



		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 3</u></b> <b><u>WATERPROOFING</u></b> <b><u>(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b> <b><u>One layer of 375 micron embossed damp proof course</u></b>					
1	In walls	m <sup>2</sup>	23		
<b><u>One layer of 250 micron USB green waterproof sheeting sealed at laps with pressure sensitive tape</u></b>					
2	Under surface beds	m <sup>2</sup>	86		
<b><u>JOINT SEALANTS, ETC</u></b> <b><u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc</u></b>					
3	10 x 10mm In expansion joints in floors or walls including raking out expansion joint filler as necessary (Provisional)	m	15		
<b><u>Clear silicone sealant</u></b>					
4	In waterproofing joints between fittings and walls (Provisional)	m	55		
5	In joint sealing and pointing between external aluminium window frames and facebrick surround(Provisional)	m	94		
Carried To Section Summary				R	
Section No. 4					
Bill No. 3					
Waterproofing					



	Unit	Quantity	Rate	Amount
<b><u>ROOF INSULATION</u></b>				
<b><u>'SISALATION FR 405' underlay over trusses and under purlins on training tape - to be Class B/B1/2/H&amp;V. in accordance with SANS 10400 Part T</u></b>				
4	50mm approved High Density Polystyrene Insulation beveled insulation boards laid horizontally over on engineered trusses and secured with screws through purlins.	m <sup>2</sup>	91	
Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<b>Sawn softwood grade 4</b>				
2	50 x 75mm Purlins	m	12		
	<b>Wrought softwood grade 4</b>				
3	76 x 76mm Splayed purlins	m	28		
	<b>PLATE NAILED TIMBER ROOF TRUSS CONSTRUCTION ETC</b>				
	<u>The following trusses shall be 'Gangnail' or similar approved engineering designed roof trusses manufactured from sawn softwood and suitable for corrugated iron covering and gypsum plasterboard ceilings on 38 x 50mm softwood branderling</u>				
	<u>(NOTE :The contractor will be required to provide a certificate of approval signed by a registered engineer certifying that the trusses have been designed, manufactured and installed in accordance with the relevant SABS specifications)</u>				
4	Single pitched roof truss span approximately 1160mm between wall plates to 15 degree pitch with 450mm eaves overhang both ends.	No.	8		
5	Allow for bracing, cross bracing, connecting clips, fixing brackets, hurricane clips, etc., as required for fixing in position of roof trusses as described in accordance with the manufacturer's instructions.	Item			
	<b>EAVES, VERGES, ETC</b>				
	<b>Medium density plain fibre-cement fascias and barge boards</b>				
6	12 X 225 mm Fascias boards	m	17		
7	200 X 80 mm barge boards	m	26		
	<b>DOORS, ETC</b>				
	<b>Wrought meranti doors hung to steel frames</b>				
8	40mm Framed door 813 x 2032mm high of 115mm top rail and stiles, 115mm middle rail and 212 mm bottom rail, with 23 x 552mm high solid fielded bottom panel and open top panel 1069mm high rebated all round including 12 x 12mm glazing beads on one side	No.	6		
	<b>Semi solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames</b>				
9	40mm Door 813 x 2032mm high	No.	12		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 5				
	Carpentry And Joinery				

**SECTION NO. 4**  
**35M2 UNITS TOP STRUCTURE**  
**BILL NO. 5**  
**CARPENTRY AND JOINERY**  
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Carpentry And Joinery

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 6</u></b> <b><u>CEILINGS PARTITIONS AND ACCESS FLOORING</u></b> <b><u>(CPAP WORK GROUP NO. 129 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Descriptions</u></b> <b><u>NAILED UP CEILING</u></b> <b><u>4mm Fibre-cement plain ceiling boards</u></b>				
1	m <sup>2</sup>	86		
Ceilings including 38 x 50 mm sawn softwood bandering at 400mm centres in one direction only.				
2	No.	3		
Extra over ceiling for opening for 650 x 650mm trap door complete with trimmers, frame, cross branders, ceiling board, hinges, etc as described (Provisional)				
<b><u>Rhino Gypsum plasterboard cornice</u></b>				
3	m	286		
70 x 75 mm Coved cornices				
Carried To Section Summary			R	
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Bill No. 6				
Ceilings Partitions And Access Flooring				



	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 7</u></b> <b><u>IRONMONGERY</u></b> <b><u>(CPAP WORK GROUP NO. 132 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Finishes to ironmongery</u></b> <p>Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list BS Satin bronze lacquered CP Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded</p> <b><u>Fixing</u></b> <p>Descriptions of wall mounted and floor standing ironmongery items shall be deemed to include for fixing in position and all fixing accessories Descriptions of proprietary items shall be deemed to include fixing in position and all fixing accessories as specified by the manufacturer</p> <b><u>HINGES, BOLTS, ETC</u></b> 1 100 mm Brass hinge No. 40  <b><u>LOCKS</u></b> 2 Two-lever CZ 69424955 lockset No. 12 3 Three-lever CZ 69424955lockset No. 7  <b><u>SUNDRIES</u></b> 4 38mm Diameter rubber door stop. No. 20   <div>Carried to Collection</div> <div>R</div>				
Section No. 4 Bill No. 7 Ironmongery				

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35M2 UNITS TOP STRUCTURE  
BILL NO. 7  
IRONMONGERY  
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Bill No. 7  
Ironmongery

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 8</u></b> <b><u>METALWORK</u></b> <b><u>(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>GALVANISED PRESSED STEEL DOOR FRAMES</u></b> <b><u>1,2mm Double rebated frames suitable for half brick walls</u></b> 1 Frame for door 813 x 2032mm high No. 6 <b><u>1,6mm Double rebated frames suitable for one brick walls</u></b> 2 Frame for door 813 x 2032mm high No. 12 <b><u>ALUMINIUM BALUSTRADES</u></b> <b><u>Anodised aluminium balustrades to stairs</u></b> 3 Allow a budgetary amount of R 45 000 (Forty-five Thousand Rand) for anodised aluminium raking balustrades as per the Architects specification Item <b><u>ALUMINIUM WINDOWS, DOORS, ETC</u></b> <b><u>ALUMINIUM WINDOWS</u></b> <b><u>Note</u></b> <b><u>Refer to attached window schedules for details of windows</u></b> 4 Purpose made window, type W1, size 1500 x 900mm high No. 6 5 Purpose made window, type W2, size 620 x 900mm high No. 6 6 Purpose made window, type W3, size 1500 x 900mm high No. 6 7 Purpose made window, type W4, size 600 x 600 mm high No. 6  <div> <div>Carried To Section Summary</div> <div>R</div> </div>				
Section No. 4 Bill No. 8 Metalwork				

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 9</u></b> <b><u>PLASTERING</u></b> <b><u>(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition). <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent <b><u>SCREEDS</u></b> <b><u>Screeds on concrete</u></b>					
1	25mm Thick on floors	m <sup>2</sup>	210		
<b><u>GRANOLITHIC</u></b> <b><u>Untinted granolithic, on concrete</u></b>					
2	40mm Thick on floors and landings	m <sup>2</sup>	49		
<b><u>INTERNAL PLASTER</u></b> <b><u>Cement plaster on brickwork</u></b>					
3	On walls	m <sup>2</sup>	486		
4	On concrete slabs	m <sup>2</sup>	140		
5	On sloping top of sills 1200mm wide	m	25		
<b><u>EXTERNAL PLASTER</u></b> <b><u>Cement plaster on brickwork</u></b>					
6	On walls	m <sup>2</sup>	413		
Carried To Section Summary				R	
Section No. 4 Bill No. 9 Plastering					

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 10</u></b> <b><u>TILING</u></b> <b><u>(CPAP WORK GROUP NO. 144 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition). <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent <b><u>Fixing</u></b> Tiling shall be fixed with an approved tile adhesive to a plaster backing. Plaster backing is measured elsewhere <b><u>WALL TILING</u></b> <b><u>152 x 152 x 5mm White glazed ceramic tiles</u></b>				
1	On walls	m <sup>2</sup>	3	
Carried To Section Summary				R
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Bill No. 10				
Tiling				

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 11</u></b> <b><u>PLUMBING AND DRAINAGE</u></b> <b><u>(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Fixing</u></b> <p>Descriptions of wall mounted, floor standing, drop-in, etc type sanitary fittings shall be deemed to include fixing in position and all fixing accessories. Descriptions of proprietary items shall include fixing in position and all fixing accessories as specified by the manufacturer</p> <b><u>Chasing</u></b> <p>Chasing pipes into new walls shall be regarded as 'building in' and is not measured separately. The cost of chasing and making good shall be included in the rates for pipes</p> <b><u>Stainless steel sanitary fittings</u></b> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <b><u>Waste unions</u></b> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <b><u>RAINWATER DISPOSAL</u></b> <b><u>uPVC gutters and rainwater pipes</u></b>				
1	100mm Half-round roof gutters	m	20	
2	Extra over eaves gutter for stopped end	No.	8	
3	Extra over eaves gutter for outlet for 75mm diameter pipe	No.	5	
4	75mm Diameter rainwater pipes in continuous lengths	m	40	
Carried to Collection			R	
Section No. 4				
Bill No. 11				
Plumbing And Drainage				

		Unit	Quantity	Rate	Amount
5	Extra over rainwater pipe for eaves offset 750mm projection	No.	5		
6	Extra over rainwater pipe for shoe	No.	5		
<b><u>SANITARY FITTINGS</u></b>					
7	Stainless steel single centre bowl drop-in sink size 600mm x 1200mm. Bowl size 610 x 460 x 230mm deep with overflow, manufactured in grade 304 (18/10) stainless steel.				
	Tap to be 15mm 102CP demand bib tap. All in accordance to relative SANS	No.	6		
8	WHB, size 510 x 405mm with overflow and two tap hole configuration fixed to wall with and including  2 x 10mm bolts. 32 x 32mm bottle trap, chrome plated with 75mm deep seal, inlet screwed female, outlet, male for 40mm PVC. Chrome plated bottle trap with 75mm deep seal for 40mm PVC waste.  15mm chrome plated basin set pillar tap; 1 off basin waste with plug, chain, stay and back nut No.  301. Flow restriction washers to be fitted to taps. All in accordance to relative SANS	No.	6		
9	Low level Ceramic flush toilet with close couple cistern including plumbing and drainage, installed complete	No.	6		
10	1700 x 700 x 400mm Bath with waste outlet, overflow grating with coupling and pair of handles, bedded in position	No.	6		
<b><u>WASTE UNIONS, ETC</u></b>					
11	32mm 301 CP waste union	No.	18		
<b><u>TRAPS, ETC</u></b>					
12	40mm Anti-vac trap	No.	6		
13	32mm 340 CP bottle trap	No.	12		
<b><u>TAPS, VALVES, ETC</u></b>					
14	Kitchen Mixer, Wall type sink mixer with aerated swivel outlet. ½" BSP male inlets. SANS 226 TYPE 1.	No.	6		
15	WHB Pillar tap X2 with hot and cold indices. ¾" BSP male inlet.  SANS 226 TYPE2.	No.	12		
16	Bath Extended Bib tap X2 with hot and cold indices. ½" BSP male inlet.				
Carried to Collection				R	
Section No. 4					
Bill No. 11					
Plumbing And Drainage					



		Unit	Quantity	Rate	Amount
	SANS 226 TYPE2.	No.	12		
	<b><u>SANITARY PLUMBING</u></b>				
	<b><u>uPVC pipes</u></b>				
17	40mm Pipes	m	23		
18	50mm Pipes	m	23		
19	110mm Pipes	m	14		
20	40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	8		
21	50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	8		
22	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	5		
	<b><u>Extra over uPVC pipes for uPVC fittings</u></b>				
23	40mm Adaptor	No.	9		
24	50mm Adaptor	No.	9		
25	40mm Bend	No.	45		
26	50mm Bend	No.	27		
27	110mm Bend	No.	18		
28	110mm Pan connector	No.	9		
29	110mm Access bend	No.	9		
30	110mm 'GI two-way' vent valve	No.	9		
	<b><u>Sundries</u></b>				
31	Wire balloon grating in top of pipe not exceeding 100mm	No.	9		
32	Testing waste pipe system	Item			
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class O copper pipes</u></b>				
33	15mm Pipes	m	25		
34	22mm Pipes	m	25		
	<b><u>Extra over class O copper pipes for capillary fittings</u></b>				
35	15mm Fittings	No.	45		
36	22mm Fittings	No.	45		
	Carried to Collection			R	
	Section No. 4				
	Bill No. 11				
	Plumbing And Drainage				

		Unit	Quantity	Rate	Amount
	<b><u>Extra over class O copper pipes for conex compression fittings</u></b>				
37	15mm Fittings	No.	45		
38	22mm Fittings	No.	45		
	<b><u>Copper overflow and service pipes</u></b>				
39	15mm Service pipes 350 mm girth	No.	18		
40	20mm Service pipes 350mm girth	No.	18		
	<b><u>TESTING</u></b>				
41	Testing water pipe system	Item			
	<b><u>ELECTRIC WATER HEATERS</u></b>				
	<b><u>Geyser mounted horizontally on roof timbers</u></b>				
42	150 Litre geyser	No.	6		
43	0.6mm Galvanised sheet iron tray size 1350 x 750mm with rivetted and soldered seams and joints turned up all round to form kerb 75mm high with beaded edge, including outlet with nozzle for 50mm diameter overflow pipe and fix in position	No.	6		
44	40 mm HDPE black polythene overflow pipe fixed to timber roof trusses.	m	2		
45	38mm Sawn softwood boarding for geyser platform formed of 38 x 228mm boards butt-jointed and nailed to truss tie beams	m <sup>2</sup>	6		
				R	
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<b><u>SECTION NO. 4</u></b> <b><u>35M2 UNITS TOP STRUCTURE</u></b> <b><u>BILL NO. 12</u></b> <b><u>PAINTWORK</u></b> <b><u>(CPAP WORK GROUP NO. 152 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. All Products are to be SABS approved.</p> <b><u>PAINTWORK, ETC TO NEW WORK</u></b> <b><u>ON FLOATED PLASTER</u></b> <b><u>Prepare,stop and apply two filler coat of paint 100-M370-2800 or equal approved and finish with two coats interior emulsion paint</u></b>				
1	m <sup>2</sup>	486		
2	m <sup>2</sup>	140		
3	m	25		
<b><u>Prepare,stop and apply two filler coat of paint 100-M370-2800 or equal approved and finish with two coats exterior emulsion paint</u></b>				
4	m <sup>2</sup>	413		
<b><u>ON PLASTER BOARD</u></b> <b><u>One coat Fillercoat' thinned 15% with 'An Overcoating time of 4 hours' and Finish with two coats Pearl glo Water Clean-up (D190-LINE)' paint or equally approved</u></b>				
5	m <sup>2</sup>	70		
Carried to Collection			R	
Section No. 4 Bill No. 12 Paintwork				

		Unit	Quantity	Rate	Amount
<b><u>ON CONCRETE FLOORS</u></b>					
<b><u>Internal - A coloured, cement-based, self-levelling floor covering for application onto wood floated screeds. To produce a 2mm smooth, decorative layer that is unaffected by rising damp. For interior use only.All to manufacturers specification. In accordance with SANS 10109, SANS 50197, SANS 1083, SANS 50197</u></b>					
6	On floors	m²	210		
<b><u>ON METAL SURFACES</u></b>					
<b><u>One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel</u></b>					
7	Door frames	m²	13		
				R	
Section No. 4 Bill No. 12 Paintwork					

SECTION NO. 4

35M2 UNITS TOP STRUCTURE

BILL NO. 12

PAINTWORK

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**35M2 UNITS TOP STRUCTURE**  
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	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 5</u></b>  <b><u>STRIP FOOTING FOUNDATIONS GUARD HOUSE</u></b>  <b><u>BILL NO. 1</u></b>  <b><u>FOUNDATIONS (PROVISIONAL)</u></b>  <b><u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b>  The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b>  <b><u>Proprietary products in descriptions</u></b>  Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Nature of material to be excavated</u></b>  The material to be excavated is assumed to be predominantly of a composition that will allow excavation in 'earth' as specified, but including a percentage of excavation in 'soft rock' and 'hard rock'</p> <p><b><u>Carting away of excavated material</u></b>  Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site</p> <p><b><u>Dewatering of excavations</u></b>  The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping, baling or otherwise. Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water</p> <p><b><u>Density testing on filling</u></b>  Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally</p>				
<p>Carried to Collection</p> <p>Section No. 5  Bill No. 1  Foundations (provisional)</p>			R	



		Unit	Quantity	Rate	Amount
<b><u>SITE CLEARANCE, ETC</u></b>					
<b><u>Site clearance</u></b>					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m <sup>2</sup>	30		
<b><u>EXCAVATION, ETC</u></b>					
<b><u>Excavation in earth not exceeding 2m deep</u></b>					
2	Surface trenches	m <sup>3</sup>	9		
3	Reduce levels under surface beds	m <sup>3</sup>	4		
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>					
4	Soft rock	m <sup>3</sup>	1		
5	Hard rock	m <sup>3</sup>	1		
<b><u>Extra over all excavations for carting away</u></b>					
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	3		
<b><u>Risk of collapse of excavations</u></b>					
7	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	25		
<b><u>Keeping excavations free from water</u></b>					
8	Keeping excavations free from mud and all water other than from subterranean sources	Item			
<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>					
9	Under floors, etc	m <sup>3</sup>	1		
10	Backfilling to trenches, holes, etc	m <sup>3</sup>	6		
<b><u>Earth filling supplied by the contractor compacted to 97% Mod AASHTO density</u></b>					
11	Under floors, etc	m <sup>3</sup>	1		
12	Backfilling to trenches, holes, etc.	m <sup>3</sup>	1		
				<b>R</b>	
Carried to Collection					
Section No. 5					
Bill No. 1					
Foundations (provisional)					

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**SECTION NO. 5**  
**STRIP FOOTING FOUNDATIONS GUARD HOUSE**  
**BILL NO. 1**  
**FOUNDATIONS (PROVISIONAL)**  
**COLLECTION**

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Section No. 5  
Bill No. 1  
Foundations (provisional)

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b> <b><u>STRIP FOOTING FOUNDATIONS GUARD HOUSE</u></b> <b><u>BILL NO. 2</u></b> <b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b> <b><u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Cost of tests</u></b> <p>Descriptions of concrete items shall be deemed to include for all necessary testing of concrete components and trial mixes</p> <p>The costs of making, storing and testing of concrete test cubes as required shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p> <b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b> <b><u>25 MPa/19mm concrete</u></b>				
1	m <sup>3</sup>	2		
2	m <sup>3</sup>	1		
<b><u>CONCRETE TESTING</u></b> 3 Making and testing 150 x 150 x 150 mm concrete strength test cube (Provisional)				
	No.	1		
<b><u>CONCRETE SUNDRIES</u></b> <b><u>Finishing top surfaces of concrete smooth with a power float</u></b>				
4	m <sup>2</sup>	6		
Carried to Collection			R	
Section No. 5 Bill No. 2 Concrete, Formwork And Reinforcement				



**SECTION NO. 5**  
**STRIP FOOTING FOUNDATIONS GUARD HOUSE**  
**BILL NO. 2**  
**CONCRETE, FORMWORK AND REINFORCEMENT**  
**COLLECTION**

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Bill No. 2  
Concrete, Formwork And Reinforcement

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 5</u></b> <b><u>STRIP FOOTING FOUNDATIONS GUARD HOUSE</u></b> <b><u>BILL NO. 3</u></b> <b><u>MASONRY</u></b> <b><u>(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>BRICKWORK</u></b> <b><u>Sizes in descriptions</u></b> <p>Where sizes in descriptions are given in brick units, 'one brick' shall be the length and 'half brick' the width of a brick</p> <b><u>Cement mortar</u></b> <p>Unless otherwise described, all brickwork shall be built in 1:5 cement mortar</p> <b><u>BRICKWORK</u></b> <b><u>Brickwork of NFX bricks in foundations (Provisional)</u></b>				
1	Half brick walls	m <sup>2</sup>	2	
2	One brick walls	m <sup>2</sup>	8	
<b><u>Reinforcement to brickwork</u></b>				
3	Approved high tensile steel brick reinforcement 75 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	20	
4	Approved high tensile steel brick reinforcement 155 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	89	
Carried To Section Summary			R	
Section No. 5 Bill No. 3 Masonry				

**SECTION NO. 5**  
**STRIP FOOTING FOUNDATIONS GUARD HOUSE**  
**SECTION SUMMARY**

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3	MASONRY	76

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SECTION SUMMARY

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	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 6</u></b></p> <p><b><u>PILED FOUNDATIONS GUARD HOUSE</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>PILING</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 106 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Indemnity</u></b></p> <p>The contractor shall take full responsibility for piling work and shall guarantee that piling work will support the calculated loads laid down by the engineer without injurious settlement. The actual lengths of piles shall be determined on site by the contractor in consultation with the engineer who will give all assistance possible. This does not in any way relieve the contractor of his responsibility or obligation to provide the specified guarantee. The contractor shall indemnify the employer against any injury to or death of any person and all loss or damage to all structures resulting from the failure of any pile. In the event of the failure of a pile the contractor shall make good such pile and all consequent damage at his own expense. The contractor shall insure by means of a policy, approved by the principal agent, against risks arising out of the responsibilities, guarantee and indemnities specified. The contractor shall pay all premiums in respect of this insurance policy.</p> <p><b><u>Scope of work</u></b></p> <p>The work comprises the installation of precast concrete piles. The contractor is referred to drawing No ? issued together with these bills of quantities in order to acquaint himself fully with the nature and scope of the work? ?</p> <p>The work comprises the design and installation of ? Piles. Piles are to be installed subsequent to the site being excavated or filled to the correct levels?</p>				
<p>Section No. 6</p> <p>Bill No. 1</p> <p>Piling</p>				
<p>Carried to Collection</p>			R	

		Unit	Quantity	Rate	Amount
<b><u>Drilling</u></b>					
'Hard rock' shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives. 'Earth' shall mean all ground other than that classified as 'hard rock' and shall include made-up ground and loose stones or pieces of concrete not exceeding 0,03m3 in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferricite, compact ouklip and material of similar hardness.					
<b><u>Classification of material</u></b>					
'Hard rock' shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives. 'Earth' shall mean all ground other than that classified as 'hard rock' and shall include made-up ground and loose stones or pieces of concrete not exceeding 0,03m3 in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferricite, compact ouklip and material of similar hardness.					
<b><u>GUARANTEE AND INSURANCE</u></b>					
<b><u>ESTABLISHMENT</u></b>					
<b><u>Establishment</u></b>					
1	Transporting to and establishment on site of necessary plant for the execution of the work and removal thereof on completion	Item			
2	Setting up plant at pile position	Item			
<b><u>PRECAST CONCRETE DRIVEN PILES</u></b>					
<b><u>Precast concrete piles suitable for the following working loads including reinforcement, couplings, etc</u></b>					
3	165 Diameter piles suitable for 150kN working load	m	8		
<b><u>TEST CUBES</u></b>					
<b><u>Testing</u></b>					
4	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No.	8		
Carried to Collection				R	
Section No. 6					
Bill No. 1					
Piling					



SECTION NO. 6

PILED FOUNDATIONS GUARD HOUSE

BILL NO. 1

PILING

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	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 6</u></b>  <b><u>PILED FOUNDATIONS GUARD HOUSE</u></b>  <b><u>BILL NO. 2</u></b>  <b><u>FOUNDATIONS (PROVISIONAL)</u></b>  <b><u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b>  The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b>  <b><u>Proprietary products in descriptions</u></b>  Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Nature of material to be excavated</u></b>  The material to be excavated is assumed to be predominantly of a composition that will allow excavation in 'earth' as specified, but including a percentage of excavation in 'soft rock' and 'hard rock'</p> <p><b><u>Carting away of excavated material</u></b>  Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site</p> <p><b><u>Dewatering of excavations</u></b>  The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping, baling or otherwise. Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water</p> <p><b><u>Density testing on filling</u></b>  Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally</p>				
<p>Carried to Collection</p> <p>Section No. 6  Bill No. 2  Foundations (provisional)</p>			R	

		Unit	Quantity	Rate	Amount
<b><u>SITE CLEARANCE, ETC</u></b>					
<b><u>Site clearance</u></b>					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m <sup>2</sup>	30		
<b><u>EXCAVATION, ETC</u></b>					
<b><u>Excavation in earth not exceeding 2m deep</u></b>					
2	Surface trenches	m <sup>3</sup>	9		
3	Reduce levels under surface beds	m <sup>3</sup>	4		
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>					
4	Soft rock	m <sup>3</sup>	1		
5	Hard rock	m <sup>3</sup>	1		
<b><u>Extra over all excavations for carting away</u></b>					
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	3		
<b><u>Risk of collapse of excavations</u></b>					
7	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	25		
<b><u>Keeping excavations free from water</u></b>					
8	Keeping excavations free from mud and all water other than from subterranean sources	Item			
<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>					
9	Under floors, etc	m <sup>3</sup>	1		
10	Backfilling to trenches, holes, etc	m <sup>3</sup>	6		
<b><u>Earth filling supplied by the contractor compacted to 97% Mod AASHTO density</u></b>					
11	Under floors, etc	m <sup>3</sup>	1		
12	Backfilling to trenches, holes, etc.	m <sup>3</sup>	1		
				R	
Carried to Collection					
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Foundations (provisional)					

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SECTION NO. 6  
PILED FOUNDATIONS GUARD HOUSE  
BILL NO. 2  
FOUNDATIONS (PROVISIONAL)  
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Bill No. 2  
Foundations (provisional)

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 6</u></b> <b><u>PILED FOUNDATIONS GUARD HOUSE</u></b> <b><u>BILL NO. 3</u></b> <b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b> <b><u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Cost of tests</u></b> <p>Descriptions of concrete items shall be deemed to include for all necessary testing of concrete components and trial mixes</p> <p>The costs of making, storing and testing of concrete test cubes as required shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p> <b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b> <b><u>25 MPa/19mm concrete</u></b>				
1	Strip footings(Provisional)	m <sup>3</sup>	2	
2	Surface beds cast in panels on waterproofing	m <sup>3</sup>	1	
3	Making and testing 150 x 150 x 150 mm concrete strength test cube (Provisional)	No.	1	
<b><u>CONCRETE TESTING</u></b> <b><u>CONCRETE SUNDRIES</u></b> <b><u>Finishing top surfaces of concrete smooth with a power float</u></b>				
4	Surface beds cast in panels on waterproofing	m <sup>2</sup>	6	
Carried to Collection			R	
Section No. 6 Bill No. 3 Concrete, Formwork And Reinforcement				



**SECTION NO. 6**  
**PILED FOUNDATIONS GUARD HOUSE**  
**BILL NO. 3**  
**CONCRETE, FORMWORK AND REINFORCEMENT**  
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Section No. 6

Bill No. 3

## Concrete, Formwork And Reinforcement

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 6</u></b> <b><u>PILED FOUNDATIONS GUARD HOUSE</u></b> <b><u>BILL NO. 4</u></b> <b><u>MASONRY</u></b> <b><u>(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>BRICKWORK</u></b> <b><u>Sizes in descriptions</u></b> <p>Where sizes in descriptions are given in brick units, 'one brick' shall be the length and 'half brick' the width of a brick</p> <b><u>Cement mortar</u></b> <p>Unless otherwise described, all brickwork shall be built in 1:5 cement mortar</p> <b><u>BRICKWORK</u></b> <b><u>Brickwork of NFX bricks in foundations (Provisional)</u></b>				
1	Half brick walls	m <sup>2</sup>	2	
2	One brick walls	m <sup>2</sup>	8	
<b><u>Reinforcement to brickwork</u></b>				
3	Approved high tensile steel brick reinforcement 75 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	20	
4	Approved high tensile steel brick reinforcement 155 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	89	
Carried To Section Summary			R	
Section No. 6 Bill No. 4 Masonry				

**SECTION NO. 6**  
**PILED FOUNDATIONS GUARD HOUSE**  
**SECTION SUMMARY**

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4	MASONRY	89

Section No. 6  
SECTION SUMMARY

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		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b>					
<b><u>GUARD HOUSE TOP STRUCTURE</u></b>					
<b><u>BILL NO. 1</u></b>					
<b><u>MASONRY</u></b>					
<b><u>(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)</u></b>					
<b><u>PREAMBLES</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
<b><u>Proprietary products in descriptions</u></b>					
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent					
<b><u>BLOCKWORK</u></b>					
<b><u>Cement mortar</u></b>					
Unless otherwise described, all blockwork shall be built in 1:5 cement mortar					
<b><u>BLOCKWORK IN SUPERSTRUCTURE</u></b>					
<b><u>Blockwork in class ? mortar</u></b>					
1	140mm Walls	m <sup>2</sup>	28		
2	140mm walls in beamfilling	m <sup>2</sup>	1		
<b><u>BRICKWORK SUNDRIES</u></b>					
<b><u>Reinforcement to brickwork</u></b>					
3	Approved high tensile steel brick reinforcement 140 mm wide well lapped at all angles and passings and built into block walls(Provisional)	m	80		
<b><u>Prestressed fabricated lintels</u></b>					
4	140 x 75mm Lintels in lengths not exceeding 3m	m	5		
<b><u>Galvanised hoop iron cramps, ties, etc</u></b>					
5	2 mm Hoop iron cramp 40 mm wide and 900 mm girth, one end turned up, twice holed and screwed to wood frame and other end built into brickwork	No.	8		
6	32 x 1,6mm Roof tie 1500mm long with one end fixed to timber and other end built into brickwork	No.	6		
				R	
Carried to Collection					
Section No. 7					
Bill No. 1					
Masonry					

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SECTION NO. 7

GUARD HOUSE TOP STRUCTURE

BILL NO. 1

MASONRY

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b> <b><u>GUARD HOUSE TOP STRUCTURE</u></b> <b><u>BILL NO. 2</u></b> <b><u>WATERPROOFING</u></b> <b><u>(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b> <b><u>One layer of 375 micron embossed damp proof course</u></b>				
1	In walls	m <sup>2</sup>	1	
<b><u>One layer of 250 micron USB green waterproof sheeting sealed at laps with pressure sensitive tape</u></b>				
2	Under surface beds	m <sup>2</sup>	6	
<b><u>JOINT SEALANTS, ETC</u></b> <b><u>Clear silicone sealant</u></b>				
3	In waterproofing joints between brickwork or fittings	m	1	
4	In joint sealing and pointing between external window frames and brick surround	m	8	
Carried To Section Summary			R	
Section No. 7 Bill No. 2 Waterproofing				

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b> <b><u>GUARD HOUSE TOP STRUCTURE</u></b> <b><u>BILL NO. 3</u></b> <b><u>ROOF COVERINGS</u></b> <b><u>(CPAP WORK GROUP NO. 124 UNLESS OTHERWISE STATED)</u></b>  <b><u>0,53mm Zincalume roof sheeting steel resin coated, AZ150 minimum (150g/m2) coating mass, grade 550 (minimum yield strength of 550 Mpa) and accessories fixed to timber purlins :</u></b>					
1	Roof covering with pitch not exceeding 25°	m²	15		
<b><u>Zincalume Ridge capping:</u></b>					
2	Ridge capping 460mm girth	m	4		
<b><u>ROOF INSULATION</u></b> <b><u>'SISALATION FR 405' underlay over trusses and under purlins on training tape - to be Class B/B1/2/H&amp;V. in accordance with SANS 10400 Part T</u></b>					
3	50mm approved High Density Polystyrene Insulation beveled insulation boards laid horizontally over on engineered trusses and secured with screws through purlins.	m²	15		
Carried To Section Summary				R	
Section No. 7					
Bill No. 3					
Roof Coverings					

	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO. 7</u></b></p> <p><b><u>GUARD HOUSE TOP STRUCTURE</u></b></p> <p><b><u>BILL NO. 4</u></b></p> <p><b><u>CARPENTRY AND JOINERY</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 126 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary products in descriptions</u></b></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Roof trusses</u></b></p> <p>The truss system shall be designed by an Engineer and the Contractor shall complete and submit a certificate of confirmation. This certificate will state that the trusses have been designed, manufactured and erected in accordance with the relevant SABS code. The details of the registered engineer certifying this will appear on the certificate</p> <p><b><u>Joinery</u></b></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><b><u>Fixing</u></b></p> <p>All nailing of timber roof trusses, purlins, etc shall be done with galvanised nails. In coastal areas, copper, aluminium or stainless steel nails shall be used</p> <p>Items described as 'nailed' shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p>Where items are described as 'bolted' the bolts have been measured elsewhere</p> <p>Unless otherwise stated all items in this bill will be Work Group 126</p>				
Carried to Collection			R	
Section No. 7				
Bill No. 4				
Carpentry And Joinery				

		Unit	Quantity	Rate	Amount
<b><u>ROOFS, ETC</u></b>					
<b><u>Sawn softwood</u></b>					
1	38 x 114mm Wall plates	m	5		
<b><u>Sawn softwood grade 4</u></b>					
2	50 x 75mm Purlins	m	34		
<b><u>Wrought softwood grade 4</u></b>					
3	76 x 76mm Purlins	m	7		
<b><u>PLATE NAILED TIMBER ROOF TRUSS CONSTRUCTION ETC</u></b>					
<b><u>The following trusses shall be 'Gangnail' or similar approved engineering designed roof trusses manufactured from sawn softwood and suitable for corrugated iron covering and gypsum plasterboard ceilings on 38 x 50mm softwood branderling</u></b>					
<b><u>(NOTE :The contractor will be required to provide a certificate of approval signed by a registered engineer certifying that the trusses have been designed, manufactured and installed in accordance with the relevant SABS specifications)</u></b>					
4	Single pitched roof trusses approximately 2990mm span between wall plates to 19 degree pitch with 450 mm eaves overhang both ends.	No.	3		
5	Allow for bracing, cross bracing, connecting clips, fixing brackets, hurricane clips, etc., as required for fixing in position of roof trusses as described in accordance with the manufacturer's	Item			
<b><u>EAVES, VERGES, ETC</u></b>					
<b><u>Medium density plain fibre-cement fascias and barge boards</u></b>					
6	12 X 225 mm Fascias boards	m	15		
<b><u>DOORS, ETC</u></b>					
<b><u>FRAMED FRAMES ETC</u></b>					
<b><u>Wrought meranti doors hung to steel frames</u></b>					
7	40mm Framed door 813 x 2032mm high of 115mm top rail and stiles, 115mm middle rail and 212 mm bottom rail, with 23 x 552mm high solid fielded bottom panel and open top panel 1069mm high rebated all round including 12 x 12mm glazing beads on one side	No.	1		
				R	
Carried to Collection					
Section No. 7 Bill No. 4 Carpentry And Joinery					

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	Unit	Quantity	Rate	Amount
<u>Semi solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames</u> 8 40mm Door 813 x 2032mm high	No.	1		
Carried to Collection			R	

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**SECTION NO. 7**  
**GUARD HOUSE TOP STRUCTURE**  
**BILL NO. 4**  
**CARPENTRY AND JOINERY**  
**COLLECTION**

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Carpentry And Joinery

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		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b> <b><u>GUARD HOUSE TOP STRUCTURE</u></b> <b><u>BILL NO. 5</u></b> <b><u>CEILINGS PARTITIONS AND ACCESS FLOORING</u></b> <b><u>(CPAP WORK GROUP NO. 129 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) . <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent <b><u>Descriptions</u></b> <b><u>NAILED UP CEILINGS</u></b> <b><u>4mm fibre-cement plain ceiling boards</u></b> 1 Ceilings including 38 x 50mm sawn softwood branderling at not exceeding 400mm centres in one direction only <b><u>Rhino Gypsum plasterboard cornice</u></b> 2 75 mm Coved cornices					
		m <sup>2</sup>	6		
		m	15		
Carried To Section Summary				R	
Section No. 7 Bill No. 5 Ceilings Partitions And Access Flooring					
100					





		Unit	Quantity	Rate	Amount
<b><u>BATHROOM FITTINGS</u></b>					
5	Single Toilet Roll Holder - Vitreous china - 204x160x90mm with plastic Spindle	No.	1		
Carried to Collection				R	
Section No. 7					
Bill No. 6					
Ironmongery					
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GUARD HOUSE TOP STRUCTURE  
BILL NO. 6  
IRONMONGERY  
COLLECTION

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b> <b><u>GUARD HOUSE TOP STRUCTURE</u></b> <b><u>BILL NO. 7</u></b> <b><u>METALWORK</u></b> <b><u>(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .  <b><u>GALVANISED PRESSED STEEL DOOR FRAMES</u></b> <b><u>1,2mm Double rebated frames suitable for half brick walls</u></b> 1 Frame for door 813 x 2032mm high No. 1  <b><u>1,6mm Double rebated frames suitable for one brick walls</u></b> 2 Frame for door 813 x 2032mm high No. 1  <b><u>ALUMINIUM WINDOWS, DOORS, ETC</u></b> <b><u>Note</u></b> <b><u>Refer to attached window schedules for details of windows</u></b> 3 Purpose made window size 600 x 600mm high No. 1 4 Purpose made window size 1200 x 1500mm high No. 1				
Carried To Section Summary			R	
Section No. 7 Bill No. 7 Metalwork				

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b>					
<b><u>GUARD HOUSE TOP STRUCTURE</u></b>					
<b><u>BILL NO. 8</u></b>					
<b><u>PLASTERING</u></b>					
<b><u>(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)</u></b>					
<b><u>PREAMBLES</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
<b><u>Proprietary products in descriptions</u></b>					
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent					
<b><u>SCREEDS</u></b>					
<b><u>Screeds on concrete</u></b>					
1	40mm Thick on floors	m <sup>2</sup>	6		
<b><u>GRANOLITHIC</u></b>					
<b><u>Untinted granolithic, on concrete</u></b>					
2	40mm Thick on floors and landings	m <sup>2</sup>	1		
<b><u>INTERNAL PLASTER</u></b>					
<b><u>Cement plaster on brickwork</u></b>					
3	On walls	m <sup>2</sup>	35		
<b><u>EXTERNAL PLASTER</u></b>					
<b><u>Cement plaster on brickwork</u></b>					
4	On walls	m <sup>2</sup>	25		
Carried To Section Summary				R	
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Bill No. 8					
Plastering					

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO. 7</u></b> <b><u>GUARD HOUSE TOP STRUCTURE</u></b> <b><u>BILL NO. 9</u></b> <b><u>TILING</u></b> <b><u>(CPAP WORK GROUP NO. 144 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Fixing</u></b> <p>Tiling shall be fixed with an approved tile adhesive to a plaster backing. Plaster backing is measured elsewhere</p> <b><u>WALL TILING</u></b> <b><u>152 x 152 x 5mm White glazed ceramic tiles</u></b>				
1	On walls	m <sup>2</sup>	1	
Carried To Section Summary				R
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Bill No. 9				
Tiling				



		Unit	Quantity	Rate	Amount
	outlet, male for 40mm PVC. Chrome plated bottle trap with 75mm deep seal for 40mm PVC waste. 15mm chrome plated basin set pillar tap; 1 off basin waste with plug, chain, stay and back nut No.301. Flow restriction washers to be fitted to taps. All in accordance to relative SANS	No.	1		
3	Low level Ceramic flush toilet with close couple cistern including plumbing and drainage, installed complete	No.	1		
	<b><u>WASTE UNIONS, ETC</u></b>				
4	32mm 301 CP waste union	No.	1		
	<b><u>TRAPS, ETC</u></b>				
5	40mm Anti-vac trap	No.	1		
	<b><u>TAPS, VALVES, ETC</u></b>				
6	WHB Pillar tap X2 with hot and cold indices. ¾” BSP male inlet.  SANS 226 TYPE2.	No.	1		
	<b><u>SANITARY PLUMBING</u></b>				
	<b><u>uPVC pipes</u></b>				
7	50mm Pipes	m	2		
8	110mm Pipes	m	3		
9	50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	3		
10	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	1		
	<b><u>Extra over uPVC pipes for uPVC fittings</u></b>				
11	50mm Adaptor	No.	1		
12	50mm Bend	No.	1		
13	110mm Bend	No.	2		
14	110mm Pan connector	No.	1		
15	110mm Access Bend	No.	1		
16	110mm 'GI two-way' vent valve	No.	1		
	<b><u>Sundries</u></b>				
17	Wire balloon grating in top of pipe not exceeding 100mm	No.	1		
	Carried to Collection			R	
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		Unit	Quantity	Rate	Amount
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class O copper pipes</u></b>				
18	15mm Pipes	m	2		
19	22mm Pipes	m	2		
	<b><u>Extra over class O copper pipes for capillary fittings</u></b>				
20	15mm Fittings	No.	2		
21	22mm Fittings	No.	2		
	<b><u>Extra over class O copper pipes for conex compression fittings</u></b>				
22	15mm Fittings	No.	2		
23	22mm Fittings	No.	2		
	<b><u>Copper overflow and service pipes</u></b>				
24	15mm Service pipes 350 mm girth	No.	1		
25	20mm Service pipes 350 mm girth	No.	1		
Carried to Collection					
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1	m <sup>2</sup>	35		
<b><u>Prepare, stop and apply two filler coat of paint 100-M370-2800 or equal approved and finish with two coats interior emulsion paint</u></b>				
2	m <sup>2</sup>	25		
<b><u>ON PLASTER BOARD</u></b> <b><u>One coat Fillercoat' thinned 15% with 'An Overcoating time of 4 hours' and Finish with two coats Pearl glo Water Clean-up (D190-LINE)' paint or equally approved</u></b>				
3	m <sup>2</sup>	6		
<b><u>ON CONCRETE FLOORS</u></b> <b><u>Internal - A coloured, cement-based, self-levelling floor covering for application onto wood floated screeds. To produce a 2mm smooth, decorative layer that is unaffected by rising damp. For interior use only. All to manufacturers specification. In accordance with SANS 10109, SANS 50197, SANS 1083, SANS 50197</u></b>				
4	m <sup>2</sup>	6		
			R	
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Paintwork				

		Unit	Quantity	Rate	Amount
<b><u>ON METAL SURFACES</u></b>					
<b><u>One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel</u></b>					
5	Door frames	m²	4		
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<p><b><u>SECTION NO. 9</u></b></p> <p><b><u>STRIP FOOTING OFFICE UNIT</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>FOUNDATIONS (PROVISIONAL)</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary products in descriptions</u></b></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Nature of material to be excavated</u></b></p> <p>The material to be excavated is assumed to be predominantly of a composition that will allow excavation in 'earth' as specified, but including a percentage of excavation in 'soft rock' and 'hard rock'</p> <p><b><u>Carting away of excavated material</u></b></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site</p> <p><b><u>Dewatering of excavations</u></b></p> <p>The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping, baling or otherwise. Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water</p> <p><b><u>Density testing on filling</u></b></p> <p>Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally</p>				
<p>Section No. 9</p> <p>Bill No. 1</p> <p>Foundations (provisional)</p>				
<p>Carried to Collection</p>			R	

		Unit	Quantity	Rate	Amount
<b><u>SITE CLEARANCE, ETC</u></b>					
<b><u>Site clearance</u></b>					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m <sup>2</sup>	61		
<b><u>EXCAVATION, ETC</u></b>					
<b><u>Excavation in earth not exceeding 2m deep</u></b>					
2	Surface trenches	m <sup>3</sup>	16		
3	Reduce levels under surface beds	m <sup>3</sup>	9		
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>					
4	Soft rock	m <sup>3</sup>	2		
5	Hard rock	m <sup>3</sup>	1		
<b><u>Extra over all excavations for carting away</u></b>					
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	7		
<b><u>Risk of collapse of excavations</u></b>					
7	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	42		
<b><u>Keeping excavations free from water</u></b>					
8	Keeping excavations free from mud and all water other than from subterranean sources	Item			
<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>					
9	Under floors, etc	m <sup>3</sup>	5		
10	Backfilling to trenches, holes, etc	m <sup>3</sup>	9		
<b><u>Earth filling supplied by the contractor compacted to 97% Mod AASHTO density</u></b>					
11	Under floors, etc	m <sup>3</sup>	3		
12	Backfilling to trenches, holes, etc.	m <sup>3</sup>	1		
<b><u>Coarse river sand filling supplied by the contractor</u></b>					
13	Under floors, et	m <sup>3</sup>	5		
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Concrete, Formwork And Reinforcement

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<b><u>SECTION NO. 9</u></b> <b><u>STRIP FOOTING OFFICE UNIT</u></b> <b><u>BILL NO. 3</u></b> <b><u>MASONRY</u></b> <b><u>(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>BRICKWORK</u></b> <b><u>Sizes in descriptions</u></b> <p>Where sizes in descriptions are given in brick units, 'one brick' shall be the length and 'half brick' the width of a brick</p> <b><u>Cement mortar</u></b> <p>Unless otherwise described, all brickwork shall be built in 1:5 cement mortar</p> <b><u>BRICKWORK</u></b> <b><u>Brickwork of NFX bricks in foundations (Provisional)</u></b>				
1	Half brick walls	m <sup>2</sup>	3	
2	One brick walls	m <sup>2</sup>	13	
<b><u>Reinforcement to brickwork</u></b>				
3	Approved high tensile steel brick reinforcement 75 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	29	
4	Approved high tensile steel brick reinforcement 155 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	147	
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<p><b><u>SECTION NO.10</u></b></p> <p><b><u>PILED FOUNDATIONS OFFICE UNIT</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>FOUNDATIONS (PROVISIONAL)</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary products in descriptions</u></b></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Nature of material to be excavated</u></b></p> <p>The material to be excavated is assumed to be predominantly of a composition that will allow excavation in 'earth' as specified, but including a percentage of excavation in 'soft rock' and 'hard rock'</p> <p><b><u>Carting away of excavated material</u></b></p> <p>Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site</p> <p><b><u>Dewatering of excavations</u></b></p> <p>The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping, baling or otherwise. Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water</p> <p><b><u>Density testing on filling</u></b></p> <p>Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally</p>				
Carried to Collection			R	
Section No. 10				
Bill No. 1				
Foundations (provisional)				

		Unit	Quantity	Rate	Amount
<b><u>SITE CLEARANCE, ETC</u></b>					
<b><u>Site clearance</u></b>					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m <sup>2</sup>	61		
<b><u>EXCAVATION, ETC</u></b>					
<b><u>Excavation in earth not exceeding 2m deep</u></b>					
2	Surface trenches	m <sup>3</sup>	16		
3	Reduce levels under surface beds	m <sup>3</sup>	9		
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>					
4	Soft rock	m <sup>3</sup>	2		
5	Hard rock	m <sup>3</sup>	1		
<b><u>Extra over all excavations for carting away</u></b>					
6	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	7		
<b><u>Risk of collapse of excavations</u></b>					
7	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	42		
<b><u>Keeping excavations free from water</u></b>					
8	Keeping excavations free from mud and all water other than from subterranean sources	Item			
<b><u>FILLING, ETC</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>					
9	Under floors, etc	m <sup>3</sup>	5		
10	Backfilling to trenches, holes, etc	m <sup>3</sup>	9		
<b><u>Earth filling supplied by the contractor compacted to 97% Mod AASHTO density</u></b>					
11	Under floors, etc	m <sup>3</sup>	3		
12	Backfilling to trenches, holes, etc.	m <sup>3</sup>	1		
<b><u>Coarse river sand supplied by the contractor</u></b>					
13	Under floors, et	m <sup>3</sup>	5		
				<b>R</b>	
Carried to Collection					
Section No. 10					
Bill No. 1					
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SECTION NO.10  
PILED FOUNDATIONS OFFICE UNIT  
BILL NO. 1  
FOUNDATIONS (PROVISIONAL)  
COLLECTION

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Section No. 10  
Bill No. 1  
Foundations (provisional)

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	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO.10</u></b></p> <p><b><u>PILED FOUNDATIONS OFFICE UNIT</u></b></p> <p><b><u>BILL NO. 2</u></b></p> <p><b><u>PILING</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 106 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Indemnity</u></b></p> <p>The contractor shall take full responsibility for piling work and shall guarantee that piling work will support the calculated loads laid down by the engineer without injurious settlement. The actual lengths of piles shall be determined on site by the contractor in consultation with the engineer who will give all assistance possible. This does not in any way relieve the contractor of his responsibility or obligation to provide the specified guarantee. The contractor shall indemnify the employer against any injury to or death of any person and all loss or damage to all structures resulting from the failure of any pile. In the event of the failure of a pile, the contractor shall make good such pile and all consequent damage at his own expense. The contractor shall insure by means of a policy, approved by the principal agent, against risks arising out of the responsibilities, guarantee and indemnities specified. The contractor shall pay all premiums in respect of this insurance policy.</p> <p><b><u>Scope of work</u></b></p> <p>The work comprises the installation of precast concrete piles. The contractor is referred to drawing No ? issued together with these bills of quantities in order to acquaint himself fully with the nature and scope of the work? ? The work comprises the design and installation of ? piles. ?Piles are to be installed subsequent to the site being excavated or filled to the correct levels?</p>				
<p>Section No. 10</p> <p>Bill No. 2</p> <p>Piling</p>			R	

Carried to Collection

	Unit	Quantity	Rate	Amount
<b><u>Drilling</u></b> 'Hard rock' shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives. 'Earth' shall mean all ground other than that classified as 'hard rock' and shall include made-up ground and loose stones or pieces of concrete not exceeding 0,03m3 in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferricite, compact ouklip and material of similar hardness.				
<b><u>Classification of material</u></b> 'Hard rock' shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives. 'Earth' shall mean all ground other than that classified as 'hard rock' and shall include made-up ground and loose stones or pieces of concrete not exceeding 0,03m3 in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferricite, compact ouklip and material of similar hardness.				
<b><u>GUARANTEE AND INSURANCE</u></b>				
<b><u>ESTABLISHMENT</u></b>				
<b><u>Establishment</u></b>				
1	Item			
Transporting to and establishment on site of necessary plant for the execution of the work and removal thereof on completion				
2	Item			
Setting up plant at pile position				
<b><u>PRECAST CONCRETE DRIVEN PILES</u></b>				
<b><u>Precast concrete piles suitable for the following working loads including reinforcement, couplings, etc</u></b>				
3	m	8		
165 Diameter piles suitable for 150kN working load				
<b><u>TEST CUBES</u></b>				
<b><u>Testing</u></b>				
4	No.	8		
Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)				
Carried to Collection			R	
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Bill No. 2				
Piling				



SECTION NO.10

PILED FOUNDATIONS OFFICE UNIT

BILL NO. 2

PILING

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO.10</u></b> <b><u>PILED FOUNDATIONS OFFICE UNIT</u></b> <b><u>BILL NO. 3</u></b> <b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b> <b><u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Cost of tests</u></b> <p>Descriptions of concrete items shall be deemed to include for all necessary testing of concrete components and trial mixes</p> <p>The costs of making, storing and testing of concrete test cubes as required shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p> <b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b> <b><u>15 MPa/19mm concrete</u></b>				
1	m³	1		
<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b> <b><u>25 MPa/19mm concrete</u></b>				
2	m³	4		
3	m³	2		
4	No.	1		
Carried to Collection			R	
Section No. 10 Bill No. 3 Concrete, Formwork And Reinforcement				





**SECTION NO.10**  
**PILED FOUNDATIONS OFFICE UNIT**  
**BILL NO. 3**  
**CONCRETE, FORMWORK AND REINFORCEMENT**  
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Concrete, Formwork And Reinforcement

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO.10</u></b> <b><u>PILED FOUNDATIONS OFFICE UNIT</u></b> <b><u>BILL NO. 4</u></b> <b><u>MASONRY</u></b> <b><u>(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>BRICKWORK</u></b> <b><u>Sizes in descriptions</u></b> <p>Where sizes in descriptions are given in brick units, 'one brick' shall be the length and 'half brick' the width of a brick</p> <b><u>Cement mortar</u></b> <p>Unless otherwise described, all brickwork shall be built in 1:5 cement mortar</p> <b><u>BRICKWORK</u></b> <b><u>Brickwork of NFX bricks in foundations (Provisional)</u></b>				
1	Half brick walls	m <sup>2</sup>	3	
2	One brick walls	m <sup>2</sup>	13	
<b><u>Reinforcement to brickwork</u></b>				
3	Approved high tensile steel brick reinforcement 75 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	29	
4	Approved high tensile steel brick reinforcement 155 mm wide well lapped at all angles and passings and built into brick walls(Provisional)	m	147	
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Section No. 10 Bill No. 4 Masonry				

**SECTION NO.10**  
**PILED FOUNDATIONS OFFICE UNIT**  
**SECTION SUMMARY**

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3	CONCRETE, FORMWORK AND REINFORCEMENT	134
4	MASONRY	135

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO.11</u></b> <b><u>TOP STRUCTURE OFFICE UNIT</u></b> <b><u>BILL NO. 1</u></b> <b><u>MASONRY</u></b> <b><u>(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>BRICKWORK</u></b> <b><u>Cement mortar</u></b> <p>Unless otherwise described, all blockwork shall be built in 1:5 cement mortar</p> <b><u>BRICKWORK IN SUPERSTRUCTURE</u></b> <b><u>Brickwork of NFP bricks in class II mortar</u></b>				
1	Half brick walls	m <sup>2</sup>	7	
2	Half brick walls to beamfilling	m <sup>2</sup>	3	
3	One brick walls to gable ends	m <sup>2</sup>	5	
4	One brick wall of two half brick skins bagged and sealed	m <sup>2</sup>	38	
<b><u>BRICKWORK SUNDRIES</u></b> <b><u>Reinforcement to brickwork</u></b>				
5	Approved high tensile steel brick reinforcement 140 mm wide well lapped at all angles and passings and built into block walls(Provisional)	m	177	
6	Approved high tensile steel brick reinforcement 70 mm wide well lapped at all angles and passings and built into block walls(Provisional)	m	28	
<b><u>Prestressed fabricated lintels</u></b>				
7	140 x 75mm Lintels in lengths not exceeding 3m	m	8	
Carried to Collection			R	
Section No. 11 Bill No. 1 Masonry				

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TOP STRUCTURE OFFICE UNIT  
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MASONRY  
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Bill No. 1  
Masonry

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<b><u>SECTION NO.11</u></b> <b><u>TOP STRUCTURE OFFICE UNIT</u></b> <b><u>BILL NO. 2</u></b> <b><u>WATERPROOFING</u></b> <b><u>(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .  <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent  <b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b> <b><u>One layer of 375 micron embossed damp proof course</u></b>				
1	In walls	m <sup>2</sup>	7	
<b><u>One layer of 250 micron USB green waterproof sheeting sealed at laps with pressure sensitive tape</u></b>				
2	Under surface beds	m <sup>2</sup>	19	
<b><u>JOINT SEALANTS, ETC</u></b> <b><u>Clear silicone sealant</u></b>				
3	In waterproofing joints between brickwork or fittings	m	4	
4	In joint sealing and pointing between external window frames and brick surround	m	20	
Carried To Section Summary			R	
Section No. 11 Bill No. 2 Waterproofing				

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO.11</u></b> <b><u>TOP STRUCTURE OFFICE UNIT</u></b> <b><u>BILL NO. 3</u></b> <b><u>ROOF COVERINGS</u></b> <b><u>(CPAP WORK GROUP NO. 124 UNLESS OTHERWISE STATED)</u></b>  <b><u>0,53mm Zincalume roof sheeting steel resin coated, AZ150 minimum (150g/m2) coating mass, grade 550 (minimum yield strength of 550 Mpa) and accessories fixed to timber purlins :</u></b>					
1	Roof covering with pitch not exceeding 25°	m²	36		
<b><u>Zincalume Ridge capping:</u></b>					
2	Ridge capping 460mm girth	m	6		
<b><u>ROOF INSULATION</u></b> <b><u>'SISALATION FR 405' underlay over trusses and under purlins on training tape - to be Class B/B1/2/H&amp;V. in accordance with SANS 10400 Part T</u></b>					
3	50mm approved High Density Polystyrene Insulation beveled insulation boards laid horizontally over on engineered trusses and secured with screws through purlins.	m²	36		
Carried To Section Summary				R	
Section No. 11					
Bill No. 3					
Roof Coverings					



	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO.11</u></b></p> <p><b><u>TOP STRUCTURE OFFICE UNIT</u></b></p> <p><b><u>BILL NO. 4</u></b></p> <p><b><u>CARPENTRY AND JOINERY</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 126 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary products in descriptions</u></b></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Roof trusses</u></b></p> <p>The truss system shall be designed by an Engineer and the Contractor shall complete and submit a certificate of confirmation. This certificate will state that the trusses have been designed, manufactured and erected in accordance with the relevant SABS code. The details of the registered engineer certifying this will appear on the certificate</p> <p><b><u>Joinery</u></b></p> <p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><b><u>Fixing</u></b></p> <p>All nailing of timber roof trusses, purlins, etc shall be done with galvanised nails. In coastal areas, copper, aluminium or stainless steel nails shall be used</p> <p>Items described as 'nailed' shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p>Where items are described as 'bolted' the bolts have been measured elsewhere</p> <p>Unless otherwise stated all items in this bill will be Work Group 126</p>				
Carried to Collection			R	
Section No. 11				
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Carpentry And Joinery				

		Unit	Quantity	Rate	Amount
<b><u>ROOFS, ETC</u></b>					
<b><u>Sawn softwood</u></b>					
1	38 x 114mm Wall plates	m	9		
<b><u>Sawn softwood grade 4</u></b>					
2	50 x 75mm Purlins	m	8		
<b><u>Wrought softwood grade 4</u></b>					
3	76 x 76mm Splayed Purlins	m	2		
<b><u>PLATE NAILED TIMBER ROOF TRUSS CONSTRUCTION ETC</u></b>					
<b><u>The following trusses shall be 'Gangnail' or similar approved engineering designed roof trusses manufactured from sawn softwood and suitable for corrugated iron covering and gypsum plasterboard ceilings on 38 x 50mm softwood branderling</u></b>					
<b><u>(NOTE :The contractor will be required to provide a certificate of approval signed by a registered engineer certifying that the trusses have been designed, manufactured and installed in accordance with the relevant SABS specifications)</u></b>					
4	Dooble pitched roof trusses approximately 4800mm span between wall plates to 19 degree pitch with 450 mm eaves overhang both ends.	No.	5		
5	Allow for bracing, cross bracing, connecting clips, fixing brackets, hurricane clips, etc., as required for fixing in position of roof trusses as described in accordance with the manufacturer's	Item			
<b><u>EAVES, VERGES, ETC</u></b>					
<b><u>Medium density plain fibre-cement fascias and barge boards</u></b>					
6	12 X 225 mm Fascias boards	m	12		
7	200 X 80 mm barge boards	m	12		
<b><u>DOORS, ETC</u></b>					
<b><u>FRAMED FRAMES ETC</u></b>					
<b><u>Wrought meranti doors hung to steel frames</u></b>					
8	40mm Framed door 813 x 2032mm high of 115mm top rail and stiles, 115mm middle rail and 212 mm bottom rail, with 23 x 552mm high solid fielded bottom panel and open top panel 1069mm high rebated all round including 12 x 12mm glazing beads on one side	No.	1		
Carried to Collection				R	
Section No. 11					
Bill No. 4					
Carpentry And Joinery					

	Unit	Quantity	Rate	Amount
<u>Semi solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames</u> 9 40mm Door 813 x 2032mm high	No.	1		
Carried to Collection			R	

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**TOP STRUCTURE OFFICE UNIT**  
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Carpentry And Joinery

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	Unit	Quantity	Rate	Amount
<p><b><u>SECTION NO.11</u></b></p> <p><b><u>TOP STRUCTURE OFFICE UNIT</u></b></p> <p><b><u>BILL NO. 5</u></b></p> <p><b><u>CEILINGS PARTITIONS AND ACCESS FLOORING</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 129 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary products in descriptions</u></b></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Descriptions</u></b></p> <p><b><u>NAILED UP CEILINGS</u></b></p> <p><b><u>4mm fibre-cement plain ceiling boards</u></b></p> <p>1 Ceilings including 38 x 50mm sawn softwood banderling at not exceeding 400mm centres in one direction only m<sup>2</sup> 19</p> <p><b><u>Rhino Gypsum plasterboard cornice</u></b></p> <p>2 75 mm Coved cornices m 21</p>				
<p>Carried To Section Summary</p> <p>Section No. 11</p> <p>Bill No. 5</p> <p>Ceilings Partitions And Access Flooring</p>				<p>R</p>



		Unit	Quantity	Rate	Amount
<b><u>BATHROOM FITTINGS</u></b>					
5	Single Toilet Roll Holder - Vitreous china - 204x160x90mm with plastic Spindle	No.	1		
Carried to Collection				R	
Section No. 11					
Bill No. 6					
Ironmongery					
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**TOP STRUCTURE OFFICE UNIT**  
**BILL NO. 6**  
**IRONMONGERY**  
**COLLECTION**

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	Unit	Quantity	Rate	Amount
<b><u>SECTION NO.11</u></b> <b><u>TOP STRUCTURE OFFICE UNIT</u></b> <b><u>BILL NO. 7</u></b> <b><u>METALWORK</u></b> <b><u>(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .  <b><u>GALVANISED PRESSED STEEL DOOR FRAMES</u></b> <b><u>1,2mm Double rebated frames suitable for half brick walls</u></b> 1 Frame for door 813 x 2032mm high No. 1  <b><u>1,6mm Double rebated frames suitable for one brick walls</u></b> 2 Frame for door 813 x 2032mm high No. 1  <b><u>ALUMINIUM WINDOWS, DOORS, ETC</u></b> <b><u>Note</u></b> <b><u>Refer to attached window schedules for details of windows</u></b> 3 Purpose made window size 600 x 600mm high No. 1 4 Purpose made window size 1200 x 900mm high No. 1 5 Purpose made window size 1200 x 1200mm high No. 3				
Carried To Section Summary			R	
Section No. 11 Bill No. 7 Metalwork				
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		Unit	Quantity	Rate	Amount
<b><u>SECTION NO.11</u></b>					
<b><u>TOP STRUCTURE OFFICE UNIT</u></b>					
<b><u>BILL NO. 8</u></b>					
<b><u>PLASTERING</u></b>					
<b><u>(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)</u></b>					
<b><u>PREAMBLES</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .					
<b><u>SUPPLEMENTARY PREAMBLES</u></b>					
<b><u>Proprietary products in descriptions</u></b>					
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent					
<b><u>SCREEDS</u></b>					
<b><u>Screeds on concrete</u></b>					
1	40mm Thick on floors	m <sup>2</sup>	20		
<b><u>GRANOLITHIC</u></b>					
<b><u>Untinted granolithic, on concrete</u></b>					
2	40mm Thick on floors and landings	m <sup>2</sup>	20		
<b><u>INTERNAL PLASTER</u></b>					
<b><u>Cement plaster on brickwork</u></b>					
3	On walls	m <sup>2</sup>	52		
<b><u>EXTERNAL PLASTER</u></b>					
<b><u>Cement plaster on brickwork</u></b>					
4	On walls	m <sup>2</sup>	49		
Carried To Section Summary				R	
Section No. 11					
Bill No. 8					
Plastering					

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO.11</u></b> <b><u>TOP STRUCTURE OFFICE UNIT</u></b> <b><u>BILL NO. 9</u></b> <b><u>TILING</u></b> <b><u>(CPAP WORK GROUP NO. 144 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).  <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent  <b><u>Fixing</u></b> Tiling shall be fixed with an approved tile adhesive to a plaster backing. Plaster backing is measured elsewhere  <b><u>WALL TILING</u></b> <b><u>152 x 152 x 5mm White glazed ceramic tiles</u></b>					
1	On walls	m <sup>2</sup>	2		
<div>Section No. 11</div> <div>Bill No. 9</div> <div>Tiling</div>		Carried To Section Summary		R	

	Unit	Quantity	Rate	Amount
<b><u>SECTION NO.11</u></b> <b><u>TOP STRUCTURE OFFICE UNIT</u></b> <b><u>BILL NO. 10</u></b> <b><u>PLUMBING AND DRAINAGE</u></b> <b><u>(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE STATED)</u></b>  <b><u>PREAMBLES</u></b> <p>The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition) .</p> <b><u>SUPPLEMENTARY PREAMBLES</u></b> <b><u>Proprietary products in descriptions</u></b> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <b><u>Fixing</u></b> <p>Descriptions of wall mounted, floor standing, drop-in, etc type sanitary fittings shall be deemed to include fixing in position and all fixing accessories Descriptions of proprietary items shall include fixing in position and all fixing accessories as specified by the manufacturer</p> <b><u>Chasing</u></b> <p>Chasing pipes into new walls shall be regarded as 'building in' and is not measured separately. The cost of chasing and making good shall be included in the rates for pipes</p> <b><u>Stainless steel sanitary fittings</u></b> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <b><u>Waste unions</u></b> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <b><u>RAINWATER DISPOSAL</u></b> <b><u>uPVC gutters and rainwater pipes</u></b>				
1	100mm Half-round roof gutters	m	6	
2	100mm Half-round roof gutters	m	6	
3	Extra over eaves gutter for stopped end	No.	4	
4	Extra over eaves gutter for outlet for 75mm diameter pipe	No.	4	
Carried to Collection			R	
Section No. 11 Bill No. 10 Plumbing And Drainage				

		Unit	Quantity	Rate	Amount
5	75mm Diameter rainwater pipes in continuous lengths	m	4		
6	Extra over rainwater pipe for eaves offset 750mm projection	No.	4		
7	Extra over rainwater pipe for shoe	No.	4		
	<b><u>SANITARY FITTINGS</u></b>				
8	Stainless steel single centre bowl drop-in sink size 600mm x 1200mm. Bowl size 610 x 460 x 230mm deep with overflow, manufactured in grade 304 (18/10) stainless steel.  Tap to be 15mm 102CP demand bib tap. All in accordance to relative SANS	No.	1		
9	WHB, size 450 x 405mm with overflow and two tap hole configuration fixed to wall with and including 2 x 10mm bolts. 32 x 32mm bottle trap, chrome plated with 75mm deep seal, inlet screwed female,  outlet, male for 40mm PVC. Chrome plated bottle trap with 75mm deep seal for 40mm PVC waste. 15mm chrome plated basin set pillar tap; 1 off basin waste with plug, chain, stay and back nut No.301. Flow restriction washers to be fitted to taps. All in accordance to relative SANS	No.	1		
10	Low level Ceramic flush toilet with close couple cistern including plumbing and drainage, installed complete	No.	1		
	<b><u>WASTE UNIONS, ETC</u></b>				
11	32mm 301 CP waste union	No.	2		
	<b><u>TRAPS, ETC</u></b>				
12	40mm Anti-vac trap	No.	3		
	<b><u>TAPS, VALVES, ETC</u></b>				
13	WHB Pillar tap X2 with hot and cold indices. ¾" BSP male inlet.  SANS 226 TYPE2.	No.	4		
	<b><u>SANITARY PLUMBING</u></b>				
	<b><u>uPVC pipes</u></b>				
14	50mm Pipes	m	6		
15	110mm Pipes	m	6		
16	50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	0		
	Carried to Collection			R	
	Section No. 11				
	Bill No. 10				
	Plumbing And Drainage				

		Unit	Quantity	Rate	Amount
17	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	12		
	<b><u>Extra over uPVC pipes for uPVC fittings</u></b>				
18	50mm Adaptor	No.	3		
19	50mm Bend	No.	3		
20	110mm Bend	No.	3		
21	110mm Pan connector	No.	1		
22	110mm Access Bend	No.	1		
23	110mm 'GI two-way' vent valve	No.	1		
	<b><u>Sundries</u></b>				
24	Wire balloon grating in top of pipe not exceeding 100mm	No.	1		
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class O copper pipes</u></b>				
25	15mm Pipes	m	3		
26	22mm Pipes	m	2		
	<b><u>Extra over class O copper pipes for capillary fittings</u></b>				
27	15mm Fittings	No.	5		
28	22mm Fittings	No.	6		
	<b><u>Extra over class O copper pipes for conex compression fittings</u></b>				
29	15mm Fittings	No.	3		
30	22mm Fittings	No.	3		
	<b><u>Copper overflow and service pipes</u></b>				
31	15mm Service pipes 350 mm girth	No.	1		
32	20mm Service pipes 350 mm girth	No.	1		
	<b><u>ELECTRIC WATER HEATERS</u></b>				
33	10 Litre Prisma over-basin electric water heater fixed to wall	No.	1		
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		Unit	Quantity	Rate	Amount
<b><u>ON METAL SURFACES</u></b>					
<b><u>One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel</u></b>					
5	Door frames	m <sup>2</sup>	5		
<b><u>ON WOOD SURFACES</u></b>					
<b><u>One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on doors</u></b>					
6	Doors	m <sup>2</sup>	9		
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**TOP STRUCTURE OFFICE UNIT**

**SECTION SUMMARY**

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SECTION SUMMARY

		Unit	Quantity	Rate	Amount
<b><u>SECTION NO.12</u></b>					
<b><u>EXTERNAL WORKS</u></b>					
<b><u>BILL NO. 1</u></b>					
<b><u>SITE CLEARANCE, BULK EARTHWORKS, ETC</u></b>					
<b><u>(PROVISIONAL)</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).					
<b><u>CLEARING OF SITE</u></b>					
1	Allow for clearing of site of all vegetable matter, rubbish, etc.including small trees having a circumference of less than 200mm measured at a height of 1 000mm above ground level, that may be encountered and roughly level site to be built upon and carting away any debris to a site to be found by the contractor.	m <sup>2</sup>	1		
<b><u>EARTHWORKS</u></b>					
<b><u>Open face excavations in earth over sloping site:</u></b>					
2	Excavate in soft material in open face not exceeding 2 m deep extreme to reduce levels and deposit on site as filling (cut and fill) spread, levelled, consolidated in layers not exceeding 300 mm thick and compacted to 98% modified AASHTO density including forming terraces, slopes, banks, combers etc	m <sup>3</sup>	1		
3	Extra over exvavations for excavations in soft rock	m <sup>3</sup>	1		
4	Extra over exvavations for excavations in hard rock	m <sup>3</sup>	1		
5	Scarify in-situ surface of the bulk excavated bottoms to a depth of 150 mm, and compact to 93% Modified AASHTO density at optimum moisture content	m <sup>2</sup>	1		
6	Imported filling supplied by the contractor, compacted to form platforms in layers not exceeding 150 mm thick to 98% Modified AASHTO density at optimum moisture content	m <sup>3</sup>	1		
7	Cart away surplus excavated material	m <sup>3</sup>	1		
<b><u>LANDSCAPING</u></b>					
<b><u>Topsoil</u></b>					
8	Imported topsoil supplied by the contractor spread and levelled over the site to form 100mm thick layer	m <sup>3</sup>	1		
Carried to Collection				R	
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Site Clearance, Bulk Earthworks, Etc (provisional)					

		Unit	Quantity	Rate	Amount
	<b><u>Grass plantation</u></b>				
9	Cynodon dactylone (Couch grass) roots in rows at 150mm centres and 50mm deep with roots lay in continuous rows	m <sup>2</sup>	1		
	<b><u>PLAY EQUIPMENT</u></b>				
10	Timber Jungle Gym (tanalith treated) with raised platform, size 1,800 x 1,800mm, with 95% UV protected shade cloth roof, with wooden hand railings on three sides, with nylon cargo net, with 3,000mm glass fibre slide fixed to platform, with two tyre swings secured with suitable thickness galvanised chain and eyebolt system, With 3600mm long suspension bridge, installed complete by an approved manufacture	No.	1		
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		Unit	Quantity	Rate	Amount
<b><u>SECTION NO.12</u></b>					
<b><u>EXTERNAL WORKS</u></b>					
<b><u>BILL NO. 2</u></b>					
<b><u>FENCING (PROVISIONAL)</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).					
<b><u>Site clearance</u></b>					
1	Allow for clearing site for the width of 1 000 mm where fencing runs are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling.	m	1		
2	Excavate in earth and fill adjacent portion to make up levels under fence line	m <sup>3</sup>	1		
<b><u>Palisade fencing</u></b>					
3	Security palisade fencing 2,40m high consisting of vertical 75 x 75 x 3mm square tubing at approximately 3.0m intervals with vertical 25 x 25 x 3mm angle irons to form devils fork in between at 125mm centres, welded to horizontal 40 x 40 x 3 x 3000mm angle irons one at the top and two at the bottom including vertical 25 x 25 x 600mm high angle iron at bottom to form doggy bars	m	1		
<b><u>Gates</u></b>					
4	Palisade gate 1.0m x 2.40m high consisting of 100 x 50mm tubing frame with vertical 25 x 25 x 3mm angle irons to form devils fork in between at 125mm centres, welded to horizontal 40 x 40 x 3 x 1000mm angle irons one at the top and one at the bottom, 40 x 5 x 1.0m long flat bar rollers welded on top fork including vertical 25 x 25 x 600mm high angle iron at bottom to form doggy bars	No.	1		
5	Sliding palisade gate 6.0m x 2.40m high consisting of 100 x 50mm tubing frame with vertical 25 x 25 x 3mm angle irons to form devils fork in between at 125mm centres, welded to horizontal 40 x 40 x 3 x 3000mm angle irons one at the top and one at the bottom, 40 x 5 x 6.0m long flat bar rollers welded on top fork including vertical 25 x 25 x 600mm high angle iron at bottom to form doggy bars	No.	1		
6	50mm Galvanised steel locking chain 500mm long welded to gate frame	No.	1		
7	'Union 3122' heavy duty padlock	No.	1		
Carried to Collection				R	
Section No. 12					
Bill No. 2					
Fencing (provisional)					

		Unit	Quantity	Rate	Amount
8	500 x 500 x 700mm Deep 20MPa mass concrete keep block with 19mm diameter x 100mm long galvanised pipe cast into top, including all necessary excavation, formwork, etc	No.	1		
9	20MPa/19mm Stone concrete under gates, 1 m wide x average 200 mm thick overall, humped and shaped to falls, including excavations, formwork, backfilling, etc	m³	1		
<b><u>SECURITY FENCING</u></b>					
<b><u>Supplementary Preambles</u></b>					
1. All fencing components are to be hot-dip galvanised after manufacture 2. Flatwrap wire to comply with CKS 592 3. Flatwrap wire and clips to be 'Aluzink' coated					
<b><u>Site clearance</u></b>					
10	Allow for clearing site for the width of 1 000 mm where fencing runs are to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling.	m	1		
11	Excavate in earth and fill adjacent portion to make up levels under fence line	m³	1		
<b><u>Galvanised mild steel security fencing</u></b>					
12	Security fencing 2400m high formed of 76mm diameter x 3mm wall thickness galvanised intermediate posts 2880mm long (measured elsewhere); the vertical height covered with 76 x 50 x 3,15mm galvanised Class A Weldmesh fencing 2400mm high fixed to straining wires with 'Hogring' clips applied at 500mm centres and the top covered with a rows row of 600mm flatwrap razor wire attached to and including two strands of barbed wire and weldmesh with 'Hogring' clips at 400mm centres, and at each overlap of the flatwrap with the adjacent flatwrap	m	1		
13	76mm diameter x 3mm wall thickness galvanised intermediate posts 2880mm long , holed six times, fitted on top with pressed steel caps, 150 x 150 x 5mm thick mild steel baseplates welded on at bottom and embedded in and including 300 x 300 x 700mm deep 15MPa mass concrete base at maximum 3m centres, including four 4mm galvanised straining wires secured to posts; the vertical height covered with 76 x 50 x 3.15mm galvanised Class A Weldmesh fencing 2400mm high fixed to straining wires with 'Hogring' clips applied at 500mm centres	No.	1		
Carried to Collection				R	
Section No. 12					
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Fencing (provisional)					



		Unit	Quantity	Rate	Amount
14	Extra over fencing for 76mm Diameter x 3mm wall thickness straining or corner post 2400mm long holed six times and fitted on top with a pressed steel cap and other end fitted with 200 x 200 x 5mm thick galvanised mild steel base plate welded on and embedded in and including 500 x 500 x 700mm deep 15MPa mass concrete base	No.	1		
15	Extra over fencing for 76mm Diameter x 3mm wall thickness gate post 2400mm long holed six times and fitted on top with a pressed steel cap and other end fitted with 200 x 200 x 5mm thick galvanised mild steel base plate welded on and embedded in and including 500 x 500 x 700mm deep 15MPa mass concrete base	No.	1		
	<b><u>Gates</u></b>				
16	Single pedestrian gate size 1000 x 2400mm high formed of 50mm diameter x 3mm wall thickness tubular section framing with stiles 2400mm high and one horizontal brace and two diagonal braces scribed and welded at all intersections and covered with 76 x 50 x 3,15mm galvanised Class A Weldmesh 2400mm high fixed with 'Hogring' clips to four 2.4mm galvanised straining wires and the top covered with a single row of 500mm flatwrap razor wire attached to and including two strands of barbed wire and weldmesh with 'Hogring' clips; the gate fitted with three eyebolt hinges, stops and one 16mm diameter solid galvanised mild steel locking padbolt, and drilling gate post for keep hole, etc	No.	1		
17	Vehicle gate size 2000 x 2400mm high formed of 50mm diameter x 3mm wall thickness tubular section framing with stiles 2400mm high and one horizontal brace and two diagonal braces scribed and welded at all intersections and covered with 76 x 50 x 3,15mm galvanised Class A Weldmesh 2400mm high fixed with 'Hogring' clips to four 2.4mm galvanised straining wires and the top covered with a single row of 500mm flatwrap razor wire attached to and including two strands of barbed wire and weldmesh with 'Hogring' clips; the gate fitted with three eyebolt hinges, stops and one 16mm diameter solid galvanised mild steel locking padbolt, and drilling gate post for keep hole, etc	No.	1		
18	50mm Galvanised steel locking chain 500mm long welded to gate frame	No.	1		
19	'Union 3122' heavy duty padlock	No.	1		
	Carried to Collection			R	
	Section No. 12				
	Bill No. 2				
	Fencing (provisional)				

		Unit	Quantity	Rate	Amount
20	500 x 500 x 700mm Deep 20MPa mass concrete keep block with 19mm diameter x 100mm long galvanised pipe cast into top, including all necessary excavation, formwork, etc	No.	1		
Carried to Collection				R	
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		Unit	Quantity	Rate	Amount
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<b><u>EXTERNAL WORKS</u></b>					
<b><u>BILL NO. 3</u></b>					
<b><u>ROADS, WALKWAYS AND STEPS (PROVISIONAL)</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).					
<b><u>ROADWORK, PARKING AREAS AND WALKWAYS</u></b>					
<b><u>Site clearance</u></b>					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m <sup>2</sup>	1		
<b><u>Excavation in earth not exceeding 2m deep</u></b>					
2	150mm Deep over site between buildings, retaining walls, etc to remove top soil and dispose in prescribed stock piles on site	m <sup>2</sup>	1		
<b><u>Extra over bulk excavation in earth for excavation in</u></b>					
3	Soft rock	m <sup>3</sup>	1		
4	Hard rock	m <sup>3</sup>	1		
<b><u>Extra over all excavations for carting away</u></b>					
5	Cartaway surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	1		
<b><u>Keeping excavations free of water</u></b>					
6	Keeping excavations free of water other than subterranean water	Item			
<b><u>EARTHWORKS</u></b>					
<b><u>Road bed preparation</u></b>					
7	Scarify in-situ road bed surface to a depth of 100 mm and compact to 93% Modified AASTO density at optimum moisture content	m <sup>2</sup>	1		
<b><u>Base Course</u></b>					
8	Base course of G4 material in accordance with SABS 1200ME, stabilised with OPC to C4 quality and compacted to 97% Mod AASHTO density	m <sup>3</sup>	1		
Carried to Collection				R	
Section No. 12					
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Roads, Walkways And Steps (provisional)					

		Unit	Quantity	Rate	Amount
<b><u>Sub-base Course</u></b>					
9	Sub-base course of G5 material in accordance with SABS1200 DM, compacted to 95% Mod AASHTO density	m³	1		
<b><u>Subgrade</u></b>					
10	Filling of G7 material in accordance with SABS 1200 DM , in layers not exceeding 150mm thick, compacted to 95% Mod AASHTO density	m³	1		
11	Spray sub-base with an approved brand of weed killer in accordance the manufacturer's instructions	m²	1		
<b><u>ASPHALT</u></b>					
12	Prepare, prime surface of base course with MC-30 cut-back primer and apply 30mm thick TPA medium asphalt wearing course compacted to 97% marshal density to roadways, parking areas	m²	1		
<b><u>KERBING AND ROAD SIGNS</u></b>					
13	Filling from the excavations behind kerbing to correct lines, slopes, etc	m³	1		
<b><u>Precast concrete kerbing set in ground including jointing in 1:2 cement mortar</u></b>					
14	Figure 3 type kerbing	m	1		
15	Figure 3 type kerbing circular on plan exceeding 4m radius	m	1		
16	Figure 12 type kerbing	m	1		
17	Figure 12 type kerbing circular on plan exceeding 4m radius	m	1		
<b><u>Concrete</u></b>					
18	Concrete 15MPa in benching behind kerbing including formwork	m³	1		
<b><u>ROAD SIGNS AND MARKING</u></b>					
<b><u>Road marking retro reflective paint on tarmac</u></b>					
19	Broken or unbroken line 100mm wide	m	1		
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<b><u>EXTERNAL WORKS</u></b>					
<b><u>BILL NO. 4</u></b>					
<b><u>WATER SUPPLIES (PROVISIONAL)</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).					
<b><u>WATER SUPPLY</u></b>					
<b><u>Connection</u></b>					
1	Allow the provisional sum of R20 000.00 (Twenty thousand Rand) (net) for water connection to local authorities' water main to be executed by the local authority	Item			
2	Allow for profit on last if required	Item			
3	Allow for attendance to local authority executing water main connection and paying all fees	Item			
<b><u>Class 9 UPVC pressure pipes with Lyng joints including excavation in pickable material, filling in, ramming and disposal of surplus material</u></b>					
4	75mm Pipes laid in and including trenches 700mm deep	m	1		
<b><u>Extra over UPVC pipes for fittings</u></b>					
5	75mm Bend	No.	30		
6	75mm Tee	No.	6		
7	75mm Reducing Tee	No.	1		
<b><u>High density polyethylene (HDPE) Class 16 pressure piping, including straight couplings in the running length, surrounding pipe with 100mm river sand bed and 300mm cover for width of trench and backfilling remainder with filling obtained from the excavations</u></b>					
8	32mm Diameter pipes laid in earth or earth filling under surface beds, including excavations exceeding 1m and not exceeding	m	1		
<b><u>Extra over HDPE pipes for fittings</u></b>					
9	32mm Bend	No.	1		
10	32mm Tee	No.	1		
11	32mm Reducing Tee	No.	1		
Carried to Collection				R	
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Bill No. 4					
Water Supplies (provisional)					

		Unit	Quantity	Rate	Amount
	<b><u>Excavate for and build meter and valve chamber with precast concrete top section with 445mm diameter concrete lid and one-brick sides in extra hard burnt stock bricks in 1:3 cement mortar finished fair face internally on 150mm concrete 20 MPa (20mm stone) bottom, all as per the Engineers detail</u></b>				
12	Meter and valve chamber size internally 510 x 440 x 900mm deep	No.	1		
13	600 x 600 x 600mm deep Valve chamber	No.	1		
	<b><u>Valve chamber covers and frames, etc.</u></b>				
14	600 x 600mm Cast iron single seal manhole cover and frame	No.	1		
	<b><u>Taps, valves, etc., including coupling to pipes and/or fittings</u></b>				
15	110mm Diameter Cast iron flanged gate valve with non rising spindle	No.	1		
16	20mm Brass garden hose bibtap	No.	1		
	<b><u>Water meters, etc.</u></b>				
17	100mm Water meter (table D flange) including bolts and gasket	No.	1		
18	Search for, excavate and cut into existing 75mm PVC water main and insert new tee ( fittings elsewhere)	No.	1		
	<b><u>PROTECTION TO PIPES IN GROUND</u></b>				
	<b><u>'Denso' pipe wrapping consisting of 'Denso-primer' base coat, wrapped one layer 'Denso-wrap' with 55% overlap and covered with 'Denso' PVC outerwrap with 55% overlap, including tests, to</u></b>				
19	75mm Diameter pipes in earth or earth filling (fittings measured elsewhere)	m	1		
20	75mm Elbow	No.	1		
	<b><u>Testing</u></b>				
21	Allow for testing all drains, and water supplies to the satisfaction of the Representative. All defective work is to be taken out and replaced at the Contractor's	Item			
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	Unit	Quantity	Rate	Amount
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The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).				
<b><u>Work in connection with existing</u></b>				
1	No.	1		
<b><u>Stormwater channels</u></b>				
2	m	1		
3	m <sup>3</sup>	1		
4	m <sup>3</sup>	1		
<b><u>Precast or in-situ concrete (Class 20) open stormwater channels with v-shaped waterway formed in top, finished smooth on all exposed surfaces and with angels rounded, cast in suitable lengths (not excedding 2500mm), and reinforced as necesary for handling if precast, including all formwork, moulds, shallow excavation, filling and ramming, laying to falls, bedding and pointing in (3:1) cement mortar</u></b>				
5	m	1		
6	No.	1		
7	No.	1		
Carried to Collection			R	
Section No. 12 Bill No. 5 Stormwater Drainage Provisional)				

		Unit	Quantity	Rate	Amount
<b><u>Manholes</u></b>					
<b><u>Excavate for and build stormwater manhole with one brick sides in extra hard burnt stock bricks, finished fair face internally and reinforced with two layers Brickforce at top, on and including 175mm thick reinforced concrete 25 MPa top, 175mm thick reinforced concrete 25 MPa (20mm stone) bottom with Y12's @125 centres both ways and fitted with cover and frame (elsewhere) cast into and including 100mm reinforced concrete 40 MPa (20mm stone) cover slab, steel trowelled smooth on all exposed surfaces with clean sharp arrises and angles, the bottom benched up in fine concrete 15 MPa (8mm stone) finished smooth in 1:1 cement plaster around and including forming channels</u></b>					
8	Stormwater manhole size internally 1220 x 1220mm exceeding 1m and not exceeding 2m deep to invert	No.	1		
<b><u>Covers and frames</u></b>					
9	620mm Diameter 'ST GOBAIN' Type 2A manhole cover and frame	No.	1		
Carried to Collection				R	
Section No. 12					
Bill No. 5					
Stormwater Drainage Provisional)					

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**EXTERNAL WORKS**  
**BILL NO. 5**  
**STORMWATER DRAINAGE PROVISIONAL)**  
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		Unit	Quantity	Rate	Amount
<b><u>SECTION NO.12</u></b> <b><u>EXTERNAL WORKS</u></b> <b><u>BILL NO. 6</u></b> <b><u>SOIL DRAINAGE (PROVISIONAL)</u></b>					
The Tenderer is referred to the relevant clauses in the separate documents Model Preambles for Trades (1999 Edition).					
<b><u>Work in connection with existing</u></b>					
1	Search, locate and break into existing precast concrete manhole exceeding 1m and not exceeding 2m deep for and connect new 110mm diameter uPVC drain pipe, including hacking up existing concrete benching as necessary, forming new benching, new half round channel and making good to manhole	No.	1		
<b><u>uPVC Class 34 soil, waste and vent pipes, including couplings in the running lengths</u></b>					
2	Excavation in earth not exceeding 2m deep for 110mm Diameter pipes laid in earth	m	1		
3	Extra over excavations for excavations in soft rock	m <sup>3</sup>	1		
4	Extra over excavations for excavations in hard rock	m <sup>3</sup>	1		
<b><u>Extra over PVC pipes for fittings</u></b>					
5	100mm Bend	No.	0		
6	100mm cleaning eye pipe	No.	0		
7	100mm Junction	No.	0		
<b><u>Manholes</u></b>					
<b><u>Excavate for and build circular manhole with 1m diameter precast concrete splay rebated rings not less than 63mm thick in suitable widths to suit invert bedded and jointed with suitable watertight joints, on and including 150mm thick reinforced concrete 20 MPa (20mm stone) bottom with Ref No. 311 mesh reinforcement and fitted with cover and frame (elsewhere) cast into and including 125mm reinforced concrete 20 MPa (20mm stone) cover slab, steel trowelled smooth on all exposed surfaces, the bottom benched up in fine concrete 15 MPa (8mm stone) and finished smooth in 1:1 cement plaster around channels (elsewhere measured)</u></b>					
8	Manhole exceeding 1 and not exceeding 2m deep to invert	No.	1		
Carried to Collection				R	
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Bill No. 6					
Soil Drainage (provisional)					

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SubTotal excluding Value Added Tax  
ADD VAT @ 14%:

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