

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <p><u>SECTION 1</u></p> <p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The JBCC Series 2000 Edition 4.1 Code 2101 March 2005 2005 edition prepared by the Joint Building Contracts Committee, shall be the agreement, amended as hereinafter described</p> <p>The Preliminaries for use with the JBCC Series 2000 Principal Building Agreement (May 2005 edition) prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated in these bills of quantities</p> <p>Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof</p> <p>These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the above-mentioned documents</p> <p>Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"</p> <p>Notwithstanding anything to the contrary contained in any of the contract documents including the Principal Building Agreement and the Preliminaries, the provision of the "Preliminaries" as hereinafter set forth shall prevail and shall take precedence</p> | | | |
| | Carried to Collection | | R | |
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PREAMBLES FOR TRADES

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

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

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

GENERAL

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

SECTION A - PRINCIPAL BUILDING AGREEMENT

Definitions (A1)

- 1 Definitions and interpretation (clause 1)

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

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| | Objective and Preparation (A2 to A14) | | | |
|---|---|------|---|--|
| 2 | Offer acceptance and performance (clause 2) F:..... V:..... T:..... | Item | | |
| 3 | Documents (clause 3) F:..... V:..... T:..... | Item | | |
| 4 | Design responsibility (clause 4) F:..... V:..... T:..... | Item | | |
| 5 | Employer's agents (clause 5) F:..... V:..... T:..... The principal agent shall: - monitor and control progress and scheduling - monitor all contract conditions, and - coordinate the efforts of the employer's agents, the contractor and subcontractors The powers conferred on the principal agent in terms of this clause and/or the exercising of these powers shall not be construed as removing or diminishing any of the obligations of the Contractor in terms of the Principal Building Agreement, whether financial, contractual or otherwise, nor shall the exercising of these powers create any privity of contract as between the Employer or his agents on the one part and the Contractor or subcontractors or suppliers on the other part | Item | | |
| | Carried to Collection | | R | |
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|---|--|------|--|--|---|
| | <p>The principal agent reserves the right to attend and participate in all contractor/subcontractor's meetings, to invite other employer's agents to attend such meetings at his discretion and to converse and chair any such meetings if the contractor is derelict in his duty in arranging such meetings to the degree of frequency and comprehensiveness dictated in the opinion of the project manager by the circumstances and exigencies of the construction process</p> | | | | |
| 6 | <p>Site representative (clause 6)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 7 | <p>Compliance with regulations (clause 7)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 8 | <p>Works risk (clause 8)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 9 | <p>Indemnities (clause 9)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 10 | <p>Works insurances (clause 10)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 11 | <p>Liability insurances (clause 11)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
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|---|---|------|---|--|
| 12 | Effecting insurance (clause 12) F:..... V:..... T:..... | Item | | |
| 13 | NO CLAUSE | N/A | | |
| 14 | Security (clause 14) F:..... V:..... T:..... | Item | | |
| <u>Execution (A15-A23)</u> | | | | |
| 15 | Preparation for and execution of the works (clause 15) F:..... V:..... T:..... | Item | | |
| 16 | Access to the works (clause 16) F:..... V:..... T:..... | Item | | |
| 17 | Contract instructions (clause 17) F:..... V:..... T:..... | Item | | |
| 18 | Setting out of the works (clause 18) F:..... V:..... T:..... The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc exist in order that the necessary arrangements may be made for the rectification of any such encroachments | Item | | |
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| 19 | <p>Assignment (clause 19)</p> <p>F:..... V:..... T:.....</p> <p>The contractor shall not cede his rights or delegate his obligations in terms of this agreement unless specifically called for by the employer</p> | Item | | |
| 20 | <p>Nominated subcontractors (clause 20)</p> <p>F:..... V:..... T:.....</p> | Item | | |
| 21 | <p>Selected subcontractors (clause 21)</p> <p>F:..... V:..... T:.....</p> <p>Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted</p> <p>All amounts allowed under Provisional Amounts are intended to be awarded to Selected Subcontractors</p> | Item | | |
| 22 | <p>Employer's Direct Contractors (clause 22)</p> <p>F:..... V:..... T:.....</p> | Item | | |
| 23 | <p>Contractor's Domestic Sub-Contractors (Clause 23)</p> <p>F:..... V:..... T:.....</p> <p><u>Completion (A24-A30)</u></p> | Item | | |
| 24 | <p>Practical completion (clause 24)</p> <p>F:..... V:..... T:.....</p> | Item | | |
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| 25 | Works completion (clause 25) F:..... V:..... T:..... | Item | | |
| 26 | Final completion (clause 26) F:..... V:..... T:..... | Item | | |
| 27 | Latent defects liability period (clause 27) F:..... V:..... T:..... | Item | | |
| 28 | Sectional completion (clause 28) F:..... V:..... T:..... | Item | | |
| 29 | Revision of date of practical completion (clause 29) F:..... V:..... T:..... The removal and replacement of materials and/or workmanship that do not conform to specification or drawings shall not constitute grounds for an extension of the construction period nor for an adjustment to the contract sum (clause 29.3) | Item | | |
| 30 | Penalty for non-completion (clause 30) F:..... V:..... T:..... | Item | | |
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| <u>Payment (A31 - A35)</u> | | | | |
| 31 | Interim payment to the contractor (clause 31) F:..... V:..... T:..... | Item | | |
| 32 | Adjustment to the contract value (clause 32) F:..... V:..... T:..... Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing | Item | | |
| 33 | Recovery of expense and loss (clause 33) F:..... V:..... T:..... | Item | | |
| 34 | Final account and final payment (clause 34) F:..... V:..... T:..... The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion | Item | | |
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| | <p>The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account</p> | | | | |
| 35 | <p>Payment to other parties (clause 35)</p> <p>F:..... V:..... T:.....</p> <p><u>Cancellation (A36-A39)</u></p> | Item | | | |
| 36 | <p>Cancellation by employer - contractor's default (clause 36)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 37 | <p>Cancellation by employer - loss and damage (clause 37)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 38 | <p>Cancellation by contractor - employer's default (clause 38)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| 39 | <p>Cancellation - cessation of the works (clause 39)</p> <p>F:..... V:..... T:.....</p> | Item | | | |
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| | <p><u>Dispute (A40)</u></p> <p>40 Dispute Settlement (clause 40)</p> <p>F:..... V:..... T:.....</p> <p><u>Substitute Provisions (A41)</u></p> <p>41 State clauses (Clause 41)</p> <p>F:..... V:..... T:.....</p> <p>Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder</p> <p><u>THE SCHEDULE</u></p> <p>Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder</p> <p>42 Pre-tender information (clause 42)</p> <p>F:..... V:..... T:.....</p> <p><u>42.1 CONTRACTING AND OTHER PARTIES</u></p> <p>42.1.1 Employer: As per information on the tender data</p> <p>42.1.2 Principal Agent: As per the information on the Tender data</p> <p>42.1.3 Architect:</p> <p>42.1.4 Quantity Surveyor:</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL</p> | <p>Item</p> <p>Item</p> <p>Item</p> | | <p>R</p> |
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Structural :

42.1.5 Civil:

42.1.6
Electrical Engineer:

42.1.6
Mechanical Engineer:

42.2 CONTRACT DETAILS

42.2.1 Works Description: Construction of sanitation facilities

42.2.2 Site Description: as per the information on the tender data

42.2.3 Work or installations by direct contractors:

N/A

42.2.4 This agreement is for a government contract where there are specific options that are applicable to a **State** organ only
Yes

42.2.5 Date on which possession of the site is intended to be given:

UNKNOWN

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

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42.2.7 For the works **as a whole**. Intended date of practical completion and the penalty per calendar day

4 months after contractual commencement date *Date*

Penalty Amount
*The penalty per **calendar day** shall be 0.1% of the tenderd amount (inclusive of value added tax)*

42.2.8 For the works in **sections**: Intended date of practical completion and the penalty per calendar day

Section 1
.N/A..... *Date*

R.N/A..... *Penalty Amount*

42.2.9 The **law** applicable to this **agreement** shall be that of

South Africa (country)

42.3 INSURANCES

42.3.1 Contract works insurance to be effected by:

Contractor:

For the Sum of R Contract Amount + 20.00 %

With a deductible of - to be determined by the contractor

42.3.2 Supplementary insurance is required

No

42.3.3 Public liability insurance to be effected by:

Contractor:

For the Sum of R 2 500 000-00

With a deductible of - to be determined by the contractor

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42.4 DOCUMENTS

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

Yes

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

3 Number of

42.4.3 **Bills of Quantities/Lump sum document** schedule of rates drawn up in accordance with:

"Standard System of Measuring Builders' Work"

42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within **working days**

The priced bills of quantities must be handed in with the tender

42.4.5 JBCC Engineering General Conditions are to be included in the **contract documents**:

No

42.4.6 The contract value is to be adjusted using escalation adjustment indices

Yes

Where **JBCC CPAP** is to be used
Base Month **July 2010**

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

SECTION B: PRELIMINARIES

Definitions and interpretation (B1)

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

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

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| | | | | |
|---|---|------|---|--|
| | <u>Documents (B2)</u> | | | |
| 44 | Checking of documents (B2.1) F:..... V:..... T:..... | Item | | |
| 45 | Provisional bills of quantities (B2.2) F:..... V:..... T:..... | N/A | | |
| 46 | Availability of construction documentation (B2.3) F:..... V:..... T:..... | Item | | |
| 47 | Interests of agents (B2.4) F:..... V:..... T:..... | Item | | |
| 48 | Priced documents (B2.5) F:..... V:..... T:..... | Item | | |
| 49 | Tender submission (B2.6) F:..... V:..... T:..... | Item | | |
| 50 | Defined works area (B3.1) F:..... V:..... T:..... | Item | | |
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|---|---|------|---|--|
| | <u>The site (B3)</u> | | | |
| 51 | Geotechnical investigation (B3.2) | | | |
| | F:..... V:..... T:..... | Item | | |
| 52 | Inspection of the site (B3.3) | | | |
| | F:..... V:..... T:..... | Item | | |
| | Existing premises occupied (B3.4) | | | |
| | F:..... V:..... T:..... | | | |
| | Previous work - dimensional accuracy (B3.5) | | | |
| | F:..... V:..... T:..... | | | |
| | Previous work - defects (B3.6) | | | |
| | F:..... V:..... T:..... | | | |
| 53 | Services - known (B3.7) | | | |
| | F:..... V:..... T:..... | Item | | |
| 54 | Services - unknown (B3.8) | | | |
| | F:..... V:..... T:..... | Item | | |
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|---|--|------|---|--|
| 55 | Protection of trees etc (B3.9) F:..... V:..... T:..... | Item | | |
| 56 | Articles of value (B3.10) F:..... V:..... T:..... | Item | | |
| | <u>Management of contract (B4)</u> | | | |
| 57 | Inspection of adjoining properties etc (B3.11) F:..... V:..... T:..... | Item | | |
| 58 | Management of the works (B4.1) F:..... V:..... T:..... | Item | | |
| 59 | Programme for the works (B4.2) F:..... V:..... T:..... | Item | | |
| 60 | Progress meetings (B4.3) F:..... V:..... T:..... | Item | | |
| 61 | Technical meetings (B4.4) F:..... V:..... T:..... | Item | | |
| 62 | Labour and Plant records (B4.5) F:..... V:..... T:..... | Item | | |
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|---|--|------|---|--|
| <u>Samples, Shop Drawings and Manufacturer's Instructions (B5)</u> | | | | |
| 63 | Samples of materials (B5.1) F:..... V:..... T:..... | Item | | |
| 64 | Workmanship samples (B5.2) F:..... V:..... T:..... | Item | | |
| 65 | Shop drawings (B5.3) F:..... V:..... T:..... | Item | | |
| 66 | Compliance with Manufacturer's Instructions (B5.4) F:..... V:..... T:..... | Item | | |
| <u>Temporary works and plant (B6)</u> | | | | |
| 67 | Deposits and fees (B6.1) F:..... V:..... T:..... | Item | | |
| 68 | Enclosure of the works (B6.2) F:..... V:..... T:..... | Item | | |
| 69 | Advertising (B6.3) F:..... V:..... T:..... | Item | | |
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|----|---|------|---|--|
| 70 | Plant, equipment, sheds and offices (B6.4) F:..... V:..... T:..... | Item | | |
| 71 | Main notice board (B6.5) F:..... V:..... T:..... | Item | | |
| 72 | Subcontractors' notice board (B6.6) F:..... V:..... T:..... | N/A | | |
| | <u>Temporary services (B7)</u> | | | |
| 73 | Location (B7.1) F:..... V:..... T:..... | Item | | |
| 74 | Water (B7.2) Option [A] shall apply F:..... V:..... T:..... | Item | | |
| 75 | Electricity (B7.3) Option [A] shall apply F:..... V:..... T:..... | Item | | |
| 76 | Telecommunication facilities (B7.4) F:..... V:..... T:..... | Item | | |
| 77 | Ablution facilities (B7.5) Option [A] shall apply F:..... V:..... T:..... | Item | | |
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|----|--|------|---|--|
| | <u>Prime cost amounts (B8)</u> | | | |
| 78 | Responsibility for prime cost amounts (B8.1) F:..... V:..... T:..... | Item | | |
| | <u>Attendance on N/S Subcontractors (B9)</u> | | | |
| 79 | General attendance (B9.1) F:..... V:..... T:..... | Item | | |
| 80 | Special attendance (B9.2) F:..... V:..... T:..... | Item | | |
| 81 | Commissioning - Fuel, water and power (B9.3) F:..... V:..... T:..... | Item | | |
| | <u>Financial aspects (B10)</u> | | | |
| | Statutory taxes, duties and levies (B10.1) F:..... V:..... T:..... | Item | | |
| 82 | Payment of preliminaries (B10.2) Option [B] shall apply F:..... V:..... T:..... | Item | | |
| 83 | Adjustment of preliminaries (B10.3) Option [A] shall apply F:..... V:..... T:..... | Item | | |
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|---|---|------|--|---|--|
| 84 | Payment certificate cash flow (B10.4) | | | | |
| | F:..... V:..... T:..... | Item | | | |
| | <u>General (B11)</u> | | | | |
| 85 | Protection of works (B11.1) | | | | |
| | F:..... V:..... T:..... | Item | | | |
| 86 | Protection/isolation of existing/sectionally occupied works (B11.2) | | | | |
| | F:..... V:..... T:..... | Item | | | |
| 87 | Security of the Works (B11.3) | | | | |
| | F:..... V:..... T:..... | Item | | | |
| 88 | Notice before covering work (B11.4) | | | | |
| | F:..... V:..... T:..... | Item | | | |
| 89 | Disturbance (B11.5) | | | | |
| | F:..... V:..... T:..... | Item | | | |
| 90 | Environmental Disturbance (B11.6) | | | | |
| | F:..... V:..... T:..... | Item | | | |
| 91 | Works cleaning and clearing (B11.7) | | | | |
| | F:..... V:..... T:..... | Item | | | |
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|--|---|------|----|--|
| 92 | Vermin (B11.8) F:..... V:..... T:..... | Item | | |
| 93 | Overhand work (B11.9) F:..... V:..... T:..... | Item | | |
| 94 | Instruction manuals and guarantees (B11.10) F:..... V:..... T:..... | Item | | |
| 95 | As built information (B11.11) F:..... V:..... T:..... | Item | | |
| 96 | Tenant Installations (B11.12) F:..... V:..... T:..... | Item | | |
| <u>Schedule of variables (B12)</u> | | | | |
| 97 | Pre-tender information (B12.1) F:..... V:..... T:..... | Item | | |
| 12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional: | | | | |
| | | | No | |
| 12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete | | | | |
| | | | No | |
| 12.1.3 Interest of agents (B2.4) | | | | |
| 12.1.4 Defined works area (B3.1) | | | | |
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12.1.5 Geotechnical investigation (B3.2)

N/A

12.1.6 Existing premises occupied (B3.4)

12.1.7 Previous work - dimensional accuracy (B3.4)

12.1.8 Previous work - defects (B3.5)

12.1.9 Services - known (B3.7)

12.1.10 Protection of trees (B3.9)

All trees should be protected and only on instruction of the Principal Agent may any trees be removed

12.1.12 Enclosure of the works (B6.2)

12.1.11 Inspection of adjoining properties (B3.11)

12.1.13 Offices (B6.4.3)

An office for the clerck of works should be provided

12.1.14 Main notice board (B6.5)

YES

12.1.15 Subcontractors notice board (B6.6)

A notice board is required

No

12.1.16 Water (B7.2)

Alternative Selected: A

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12.1.17 Electricity (B7.3)
Alternative selected: A

12.1.18 Telecommunications (B7.4)

12.1.19 Ablution facilities (B7.5)
Alternative selected: A

12.1.20 Protection of existing/sectionally occupied works
(B11.2)

12.1.21 Special attendance (B9.2)

Subcontractor (1) details:

N/A

12.1.22 Protection of the works (B11.1)

N/A

12.1.23 Disturbance (B11.5)

N/A

12.1.24 Environmental Disturbance (B11.6)

N/A

Post tender information (B12.2)

12.2.1 Payment of preliminaries
Alternative selected: B

12.2.2 Adjustment of preliminaries
Alternative selected: A

12.2.3 Additional agreed preliminaries items
N/A

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| SECTION C: SPECIFIC PRELIMINARIES | | | | |
|---|---|------|---|--|
| | Any special items to meet the particular circumstances of a specific project are embodied in this section. Where required for an aspect of the works to be executed according to a design by a consulting engineer, a recital of the headings to the individual clauses of the JBCC Engineering General Conditions are included | | | |
| 98 | Site instructions Instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor F: V:..... T: | Item | | |
| 99 | Black economic empowerment and training F: V:..... T: | Item | | |
| 100 | Proprietary branded products F: V:..... T: | Item | | |
| 101 | Testing of flat roof waterproofing for watertightness Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least 36 hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing F: V: T: The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instructions after consultation with the manufacturer's authorised representative | Item | | |
| Carried to Collection | | | R | |
| Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL | | | | |

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|---|--|------|---|--|
| 102 | <p>Contract instructions</p> <p>F:..... V:..... T:.....</p> <p>Contract instructions issued on site are to be recorded in triplicate in a contract instruction book which is to be supplied and maintained on site by the contractor</p> | Item | | |
| 103 | <p>Labour record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and descriptions of tradesmen and labourers employed by him and all subcontractors on the works each day of that week</p> | Item | | |
| 104 | <p>Plant record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools used on the works each day of that week</p> | Item | | |
| 105 | <p>Guarantees</p> <p>F:..... V:..... T:.....</p> | Item | | |
| Carried to Collection | | | R | |
| <p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL</p> | | | | |

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|---|--|------|--|--|---|
| | <p>Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement</p> | | | | |
| 106 | <p>Overtime</p> <p>F:..... V:..... T:.....</p> <p>Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> | Item | | | |
| 107 | <p>Co-operation of contractor for cost management</p> <p>F:..... V:..... T:.....</p> | Item | | | |
| Carried to Collection | | | | | |
| <p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL</p> | | | | | R |

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|-----|--|------|--|--|
| 108 | <p>It is specifically agreed that the contractor accepts the obligation of assisting the professional consultants in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The quantity surveyor undertakes to make available to the contractor all budgetary allowances and cost assessments/reports to enable the proper procedures to be implemented and the contractor will attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures in regard to all subcontractors</p> <p>Occupational Health and Safety Specification</p> <p>F:..... V:..... T:.....</p> <p>Any Principal Contractor entering into a contract with The Developer must achieve an acceptable level of Occupational Health and Safety performance. Refer to "Project Specification" and "Safety, Health and Environmental Evaluation Questionnaire" The contractor to comply with all provisions of the above and to be enforced on all selected and or other sub-contractors, as no claim afterwards will be entertained</p> <p><u>SUMMARY OF CATEGORIES</u></p> <p>Category : Fixed R.....</p> <p>Category : Value R.....</p> <p>Category : Time R.....</p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 PRELIMINARIES AND GENERAL</p> | Item | | |
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| Section No. 1 | | | | | |
|-------------------------------------|------------|---|--|--------|--|
| PRELIMINARIES AND GENERAL | | | | | |
| Bill No. 1 | | | | | |
| PRELIMINARIES AND GENERAL | | | | | |
| <u>COLLECTION</u> | | | | | |
| | Page No | | | Amount | |
| Total Brought Forward from Page No. | 1 | | | | |
| | 2 | | | | |
| | 3 | | | | |
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| | 19 | | | | |
| Carried Forward | | R | | | |
| Section No. 1 | | | | | |
| PRELIMINARIES AND GENERAL | | | | | |
| Bill No. 1 | | | | | |
| PRELIMINARIES AND GENERAL | | | | | |

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| Item No | Quantity | Rate | Amount |
|---|--|------|--------|
| <u>SECTION NO.2</u> | | | |
| <u>BILL NO.1</u> | | | |
| <u>DEMOLITIONS</u> | | | |
| <u>REMOVAL OF EXISTING WORK</u> | | | |
| <u>Note:</u> | | | |
| Unless otherwise stated, all materials from the alterations and demolitions will belong to the builder. | | | |
| The builder should allow for the removal of all debris from site and keep the site clean at all times | | | |
| <u>DEMOLITIONS, ETC.</u> | | | |
| 1 | Break down and demolish existing building approximate size 4400 x 3300 x 2500mm high, incl. cutting the foundation wall, strip footings, windows, roof covering, etc, removal of surface beds, backfilling, cart away etc. of all rubble and leaving no visible sign of the building (Pit Toilet) | No | 2 |
| 2 | Break down and demolish existing building approximate size 4700 x 3100 x 2500mm high, incl. cutting the foundation wall, strip footings, windows, roof covering, etc, removal of surface beds, backfilling, cart away etc. of all rubble and leaving no visible sign of the building (Waterborne Toilet) | No | 2 |
| Carried to Final Summary | | | R |
| Section No. 2 DEMOLITIONS Bill No. 1 DEMOLITION | | | |

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.3</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 83 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 83 | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 8 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 4 | Soft rock | m3 | 1 | |
| 5 | Hard rock | m3 | 0,4 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 6 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 4 | |
| | <u>Risk of collapse of excavations</u> | | | |
| 7 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 24 | |
| | Carried to Collection | | | |
| | Section No. 3 | | | |
| | SM2 - WATERBORNE | | | |
| | Bill No. 1 | | | |
| | EARTHWORKS | | | |

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| <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 1</p> <p>EARTHWORKS</p> <p><u>COLLECTION</u></p> | | | |
| | Page No | | Amount |
| Total Brought Forward from Page No. | 31 | | |
| | 32 | | |
| | | | |
| <p>Carried Forward to Summary of Section No. 3</p> | | R | |
| <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 1</p> <p>EARTHWORKS</p> | | | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.3</u> | | | |
| | <u>BILL NO.2</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 3 | |
| 2 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 16 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 3 | Surface beds cast in panels on waterproofing. | m3 | 2 | |
| | <u>CONCRETE SUNDRIES</u> | | | |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | | |
| 4 | Suface beds, slabs, etc. | m2 | 17 | |
| | <u>TEST CUBES</u> | | | |
| 5 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 3 | |
| | Carried to Collection | | | |
| | Section No. 3 | | | |
| | SM2 - WATERBORNE | | | |
| | Bill No. 2 | | | |
| | CONCRETE,FORMWORK AND REINFORCEMENT | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <p><u>SECTION NO.3</u></p> <p><u>BILL NO.3</u></p> <p><u>BRICKWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>BRICKWORK</u></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> | | | |
| | Carried to Collection | | R | |
| | <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 3</p> <p>MASONRY</p> | | | |

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| <p><u>SAMPLES</u></p> <p>Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><u>BRICKWORK</u></p> <p><u>FOUNDATIONS</u></p> <p><u>Brickwork of NFP bricks in class II mortar</u></p> | | | | |
| 1 | One brick walls | m2 | 14 | |
| <p><u>FACE BRICKWORK</u></p> <p><u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u></p> | | | | |
| 2 | Extra over brickwork for face brickwork in foundation | m2 | 7 | |
| <p><u>SUPERSTRUCTURE</u></p> <p><u>Brickwork of NFP bricks in class II mortar</u></p> <p><u>FACE BRICKWORK</u></p> <p><u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u></p> | | | | |
| 3 | One brickwork for face brick walls pointed both sides | m2 | 49 | |
| 4 | Half brickwork for face brick walls pointed both sides | m2 | 9 | |
| 5 | Extra over brickwork for face brickwork in beamfilling | m2 | 2 | |
| <p>Carried to Collection</p> | | | | |
| <p>Section No. 3 SM2 - WATERBORNE Bill No. 3 MASONRY</p> | | | | |

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|----|--|----|-----|---|--|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | | |
| 6 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 1 | | |
| 7 | Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 4 | | |
| 8 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 6 | | |
| | <u>BRICKWORK SUNDRIES</u> | | | | |
| | <u>Brick reinforcement</u> | | | | |
| 9 | 75mm Wide reinforcement built in horizontally | m | 30 | | |
| 10 | 150mm Wide reinforcement built in horizontally | m | 257 | | |
| | <u>Turning pieces</u> | | | | |
| 11 | 220mm Wide turning piece to lintel etc | m | 4 | | |
| | <u>Galvanised wire ties etc</u> | | | | |
| 12 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 10 | | |
| | <u>Ventillation bricks</u> | | | | |
| 13 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 6 | | |
| | Carried to Collection | | | R | |
| | Section No. 3 SM2 - WATERBORNE Bill No. 3 MASONRY | | | | |

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| <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 3</p> <p>MASONRY</p> <p><u>COLLECTION</u></p> | | | |
| | Page No | | Amount |
| Total Brought Forward from Page No. | 37 | | |
| | 38 | | |
| | 39 | | |
| <p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 3</p> <p>MASONRY</p> | | R | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.3</u> | | | |
| | <u>BILL NO.4</u> | | | |
| | <u>WATERPROOFING</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>DAMP-PROOFING OF WALLS AND FLOORS</u> | | | |
| | <u>One layer 375mm micron embossed damp proof course</u> | | | |
| 1 | In walls | m | 16 | |
| | <u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u> | | | |
| 2 | Under surface beds | m2 | 17 | |
| | <u>FLOOR AND WALLS SEALERS</u> | | | |
| | <u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u> | | | |
| 3 | Around steel windows and door frames. | m | 22 | |
| | Carried Forward to Summary of Section No. 3 | | R | |
| | Section No. 3 | | | |
| | SM2 - WATERBORNE | | | |
| | Bill No. 4 | | | |
| | WATERPROOFING | | | |

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.3</u> | | | |
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 21 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 21 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u> | | | |
| 3 | 125 x 100mm Seamless eaves gutters with beaded front edge | m | 5 | |
| 4 | Extra over eaves gutter for stopped end | No | 2 | |
| 5 | Extra over eaves gutter for angle | No | 2 | |
| 6 | Extra over eaves gutter for outlet for 100mm diameter pipe | No | 2 | |
| 7 | 100mm Diameter rainwater pipes | m | 5 | |
| | Carried to Collection | | | |
| | Section No. 3 | | | |
| | SM2 - WATERBORNE | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |

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| <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 5</p> <p>ROOF COVERINGS</p> <p><u>COLLECTION</u></p> | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> | | <p>Amount</p> |
| | <p>42</p> | | |
| | <p>43</p> | | |
| <p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 5</p> <p>ROOF COVERINGS</p> | | <p>R</p> | |

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|--|---|----|---|--|---|
| | <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1) | No | 1 | | |
| 9 | 44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2) | No | 2 | | |
| Carried to Collection | | | | | |
| Section No. 3 SM2 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY | | | | | R |

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|---|---------------|---|--------|
| <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 6</p> <p>CARPENTRY AND JOINERY</p> <p><u>COLLECTION</u></p> | | | |
| Total Brought Forward from Page No. | Page No 45 | | Amount |
| | 46 | | |
| | | | |
| <p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 6</p> <p>CARPENTRY AND JOINERY</p> | | R | |

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| <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 7</p> <p>IRONMONGERY</p> <p><u>COLLECTION</u></p> | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> | | <p>Amount</p> |
| | <p>48</p> | | |
| | <p>49</p> | | |
| <p>Carried Forward to Summary of Section No. 3</p> <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 7</p> <p>IRONMONGERY</p> | | <p>R</p> | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.3</u> | | | |
| | <u>BILL NO.8</u> | | | |
| | <u>METALWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| | <u>1,2mm Single rebated frames suitable for half brick walls</u> | | | |
| 1 | Frame for door 813 x 2032mm high | No 2 | | |
| | <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 2 | Frame for door 813 x 2032mm high | No 1 | | |
| | <u>STEEL WINDOWS, DOORS, ETC</u> | | | |
| 3 | Window type NE1, 533 x 654mm high including burglar bars | No 4 | | |
| 4 | Window type NE 7,1022 x 654mm high including burglar bars | No 2 | | |
| | <u>WELDED SCREENS, GATES, ETC</u> | | | |
| | <u>Steel gates and frames</u> | | | |
| 5 | Purpose made square hallow section mild steel security gate, size 813 x 2032mm High | No 1 | | |
| | Carried Forward to Summary of Section No. 3 | | R | |
| | Section No. 3 | | | |
| | SM2 - WATERBORNE | | | |
| | Bill No. 8 | | | |
| | METALWORK | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <p><u>SECTION NO.3</u></p> <p><u>BILL NO. 10</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>"Polylink" polypropylene pipes:</u></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p> | | | |
| | Carried to Collection | | R | |
| | <p>Section No. 3</p> <p>SM2 - WATERBORNE</p> <p>Bill No. 10</p> <p>PLUMBING AND DRAINAGE</p> | | | |

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

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

All pipe diameters are nominal external

Concrete pipes:

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

Vitrified clay pipes:

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

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

uPVC pipes and fittings:

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

uPVC pressure pipes and fittings:

Pipes for water supply shall be of the class stated

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

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

Carried to Collection

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Section No. 3
SM2 - WATERBORNE
Bill No. 10
PLUMBING AND DRAINAGE

Copper pipes:

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

Fixing of pipes

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

Lead pipes and fittings

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

Reducing fittings

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

Wire gratings

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

Septic tanks

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

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Exposed concrete surfaces

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

Excavations

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

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

Laying, backfilling, bedding, etc. of pipes

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

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

Flush pans

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

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

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

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| <u>Waste unions</u> | | | | |
| Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings | | | | |
| <u>Steel sectional water tanks</u> | | | | |
| Tanks shall comply with SABS CKS 114 | | | | |
| <u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u> | | | | |
| Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described | | | | |
| Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc | | | | |
| <u>SOIL DRAINAGE</u> | | | | |
| <u>uPVC pipes</u> | | | | |
| 1 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 6 | |
| <u>Extra over uPVC pipes for fittings</u> | | | | |
| 2 | 110mm Bend | No | 4 | |
| 3 | 110mm Junction | No | 4 | |
| 4 | 110 x 50mm Reducing junction | No | 4 | |
| 5 | 110mm Double junction | No | 4 | |
| <u>Pre-cast concrete gulleys</u> | | | | |
| 6 | 110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround | No | 1 | |
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| | <u>Sundries</u> | | | | |
| 7 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock | m3 | 4 | | |
| 8 | 100mm Cast iron "ABC" cleaning eye | No | 1 | | |
| 9 | Testing drainage pipe system | | Item | | |
| | <u>SANITARY FITTINGS</u> | | | | |
| | <u>"Vaal"</u> | | | | |
| 10 | 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0) | No | 2 | | |
| 11 | White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat | No | 2 | | |
| 12 | Wall hung urinal size 305 x 340 x 540mm complete with all accessories | No | 2 | | |
| | <u>WASTE UNIONS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 13 | 38mm "Cobra 316" unslotted waste and plug with chain | No | 2 | | |
| | <u>TRAPS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 14 | "Cobra Ref. 365/40" CP bottle trap | No | 2 | | |
| | <u>TAPS, VALVES, ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 15 | 15mm CP connectors | No | 2 | | |
| 16 | 25mm 1001/125RB fullway gate valve | No | 2 | | |
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|---|--|----|------|--|---|
| 17 | "Cobra ref. 206-20" bib tap | No | 2 | | |
| 18 | Ref. 232-10 Angle regulating valve with connection pipes etc. | No | 2 | | |
| 19 | "Cobra Ref. 111-15" pillar tap | No | 2 | | |
| 20 | "Cobra Ref. 232/350" Angle regulating valve | No | 2 | | |
| <u>SANITARY PLUMBING</u> | | | | | |
| <u>uPVC pipes</u> | | | | | |
| 21 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 10 | | |
| <u>Extra over uPVC pipes for fittings</u> | | | | | |
| 22 | 110mm Junction | No | 2 | | |
| 23 | 110mm Reducing junction | No | 2 | | |
| 24 | 110mm Pan connector | No | 2 | | |
| 25 | 110mm Double junction | No | 2 | | |
| 26 | 110mm "GI Two-way" vent valve | No | 2 | | |
| <u>Sundries</u> | | | | | |
| 27 | Testing waste pipe system | | Item | | |
| <u>WATER SUPPLIES</u> | | | | | |
| <u>Class 0 copper pipes</u> | | | | | |
| 28 | 15mm Pipes | m | 30 | | |
| <u>Extra over class 0 copper pipes for capillary fittings</u> | | | | | |
| 29 | 15mm Fittings | No | 30 | | |
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| | <u>SECTION NO.3</u> | | | |
| | <u>BILL NO. 12</u> | | | |
| | <u>PAINTWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ON FIBRE-CEMENT</u> | | | |
| | <u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u> | | | |
| 1 | On fascias and barge boards | m2 | 2 | |
| | <u>ON WOOD</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 2 | On doors (Internal) | m2 | 7 | |
| 3 | On doors (External) | m2 | 4 | |
| | <u>ON METAL</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 4 | On door frames | m2 | 3 | |
| 5 | On gates (Measured over the full flat area of both sides) | m2 | 4 | |
| | <u>Spot prining defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u> | | | |
| 6 | On windows with burglar bars | m2 | 5 | |
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| | 3 | MASONRY | | | | 40 |
| | 4 | WATERPROOFING | | | | 41 |
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| | 6 | CARPENTRY AND JOINERY | | | | 47 |
| | 7 | IRONMONGERY | | | | 50 |
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| | <u>SECTION NO.4</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 93 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 93 | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 12 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 4 | Soft rock | m3 | 1 | |
| 5 | Hard rock | m3 | 1 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 6 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 6 | |
| | <u>Risk of collapse of excavations</u> | | | |
| 7 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 32 | |
| | Carried to Collection | | | |
| | Section No. 4 | | | |
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EARTHWORKS

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| | <u>SECTION NO.4</u> | | | |
| | <u>BILL NO.2</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings m3 | 4 | | |
| 2 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. m | 26 | | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 3 | Surface beds cast in panels on waterproofing. m3 | 2 | | |
| | <u>TEST CUBES</u> | | | |
| 4 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. No | 4 | | |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | | |
| 5 | Suface beds, slabs, etc. m2 | 21 | | |
| | <u>REINFORCEMENT</u> | | | |
| | Carried to Collection | | R | |
| | Section No. 4 SFD3 - WATERBORNE Bill No. 2 CONCRETE,FORMWORK AND REINFORCEMENT | | | |

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|---|--|----|----|---|--|
| | <u>Mesh Reinforcement (measure nett)</u> | | | | |
| 6 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 21 | | |
| | Carried to Collection | | | R | |
| | Section No. 4 SFD3 - WATERBORNE Bill No. 2 CONCRETE, FORMWORK AND REINFORCEMENT | | | | |

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| | <p><u>SECTION NO.4</u></p> <p><u>BILL NO.3</u></p> <p><u>BRICKWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>BRICKWORK</u></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> | | | |
| | Carried to Collection | | R | |
| | <p>Section No. 4</p> <p>SFD3 - WATERBORNE</p> <p>Bill No. 3</p> <p>MASONRY</p> | | | |

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|---|--|----|----|---|
| <u>SAMPLES</u> | | | | |
| Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6 | | | | |
| <u>BRICKWORK</u> | | | | |
| <u>FOUNDATIONS</u> | | | | |
| <u>Brickwork of NFP bricks in class II mortar</u> | | | | |
| 1 | One brick walls | m2 | 11 | |
| <u>FACE BRICKWORK</u> | | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | | |
| 2 | Extra over brickwork for face brickwork in foundation | m2 | 6 | |
| <u>SUPERSTRUCTURE</u> | | | | |
| <u>FACE BRICKWORK</u> | | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | | |
| 3 | One brickwork for face brick walls pointed both sides | m2 | 68 | |
| 4 | Half brickwork for face brick walls pointed both sides | m2 | 10 | |
| 5 | Extra over brickwork for face brickwork in beamfilling | m2 | 2 | |
| 6 | Fair raking and cutting | m | 8 | |
| Carried to Collection | | | | R |
| Section No. 4 SFD3 - WATERBORNE Bill No. 3 MASONRY | | | | |

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|----|--|----|-----|---|--|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | | |
| 7 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 10 | | |
| 8 | Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at an angle | m | 4 | | |
| 9 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 6 | | |
| | <u>BRICKWORK SUNDRIES</u> | | | | |
| | <u>Brick reinforcement</u> | | | | |
| 10 | 75mm Wide reinforcement built in horizontally | m | 30 | | |
| 11 | 150mm Wide reinforcement built in horizontally | m | 300 | | |
| | <u>Turning pieces</u> | | | | |
| 12 | 220mm Wide turning piece to lintel etc | m | 6 | | |
| | <u>Galvanised wire ties etc</u> | | | | |
| 13 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 12 | | |
| | <u>Ventillation bricks</u> | | | | |
| 14 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 6 | | |
| | Carried to Collection | | | R | |
| | Section No. 4 SFD3 - WATERBORNE Bill No. 3 MASONRY | | | | |

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| | <u>SECTION NO.4</u> | | | |
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 27 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 27 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u> | | | |
| 3 | 125 x 100mm Seamless eaves gutters with beaded front edge | m | 6 | |
| 4 | Extra over eaves gutter for stopped end | No | 2 | |
| 5 | Extra over eaves gutter for angle | No | 2 | |
| 6 | Extra over eaves gutter for outlet for 100mm diameter pipe | No | 2 | |
| 7 | 100mm Diameter rainwater pipes | m | 5 | |
| | Carried to Collection | | | |
| | Section No. 4 | | | |
| | SFD3 - WATERBORNE | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |

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| | <u>SECTION NO.4</u> | | | |
| | <u>BILL NO.6</u> | | | |
| | <u>CARPENTRY AND JOINERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ROOFS, ETC.</u> | | | |
| | <u>Sawn softwood</u> | | | |
| 1 | 38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m | m | 26 | |
| 2 | 76 x 38mm Wall plates | m | 11 | |
| 3 | 50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m | m | 42 | |
| | <u>Sundries</u> | | | |
| 4 | Two coats creosote on sawn timbers | m ² | 33 | |
| 5 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 12 | |
| 6 | Hurricane clips | No | 40 | |
| | <u>EAVES, VERGES, ETC.</u> | | | |
| | <u>Pressed fibre-cement</u> | | | |
| 7 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 21 | |
| | <u>DOORS, ETC.</u> | | | |
| | Carried to Collection | | R | |
| | Section No. 4 SFD3 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY | | | |

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| | <u>SECTION NO.4</u> | | | |
| | <u>BILL NO.7</u> | | | |
| | <u>IRONMONGERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CATCHES, CABIN, HOOKS, ETC</u> | | | |
| | <u>Approved</u> | | | |
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 4 | |
| | <u>LOCKS</u> | | | |
| | <u>Approved</u> | | | |
| 2 | "Code 630" padlock | No | 2 | |
| 3 | Three lever mortice lockset | No | 2 | |
| 4 | Indicator lockset | No | 3 | |
| 5 | Disabled toilet handle facility indicator bolt set for sliding or hinged door lock | No | 1 | |
| | <u>DOOR CLOSERS</u> | | | |
| | <u>Approved</u> | | | |
| 6 | DORMA TS90 cam action slide channel door closer | No | 1 | |
| | <u>DOORSTOPS</u> | | | |
| Carried to Collection | | | | R |
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|---|---|----|---|--|---|
| | <u>Approved</u> | | | | |
| 7 | 38mm Diameter rubber door stop plugged | No | 5 | | |
| | <u>LETTERS, NAMEPLATES, ETC.</u> | | | | |
| | <u>"Union" or similar approved</u> | | | | |
| 8 | 75 x 150mm Natural anodised aluminium plate with disable, male or female symbol | No | 2 | | |
| | <u>BATHROOM FITTINGS</u> | | | | |
| | <u>"Kimberley-Clark"or Similar</u> | | | | |
| 9 | "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder | No | 4 | | |
| | <u>"Franke"or Equally approved</u> | | | | |
| 10 | "Franke" CHRH41 stainless steel mirror | No | 2 | | |
| | <u>Sundries</u> | | | | |
| 11 | Female she-bin | No | 3 | | |
| | <u>"Vaal Paragon"</u> | | | | |
| 12 | 32mm Type 9 back grab rail 800mm long plugged | No | 1 | | |
| 13 | 32mm Type 8 side grab rail 900mm girth plugged | No | 1 | | |
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| | 82 | | | |
| | 83 | | | |
| Carried Forward to Summary of Section No. 4 Section No. 4 SFD3 - WATERBORNE Bill No. 7 IRONMONGERY | | | R | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.4</u> | | | |
| | <u>BILL NO.8</u> | | | |
| | <u>METALWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| | <u>1,2mm Single rebated frames suitable for half brick walls</u> | | | |
| 1 | Frame for door 813 x 2032mm high | No | 3 | |
| | <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 2 | Frame for door 813 x 2032mm high | No | 1 | |
| | <u>PRESSED STEEL COMBINATION DOORS AND FRAMES</u> | | | |
| | <u>"Nty" doors</u> | | | |
| 3 | "Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame | No | 2 | |
| | Carried to Collection | | R | |
| | Section No. 4 SFD3 - WATERBORNE Bill No. 8 METALWORK | | | |

| <u>STEEL WINDOWS, DOORS, ETC</u> | | | |
|---|---|----|---|
| 4 | Window type NE1, 533 x 654mm high including burglar bars | No | 4 |
| 5 | Window type NE 7,1022 x 654mm high including burglar bars | No | 2 |
| <u>WELDED SCREENS, GATES, ETC</u> | | | |
| <u>Steel gates and frames</u> | | | |
| 6 | Purpose made square hallow section mild steel security gate, size 813 x 2032mm High | No | 1 |
| Carried to Collection | | | |
| Section No. 4 SFD3 - WATERBORNE Bill No. 8 METALWORK | | | R |

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|--|---------------------------|--|----------------------|--|
| <p>Section No. 4</p> <p>SFD3 - WATERBORNE</p> <p>Bill No. 8</p> <p>METALWORK</p> <p><u>COLLECTION</u></p> | | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> | | <p>Amount</p> | |
| | <p>85</p> | | | |
| | <p>86</p> | | | |
| <p>Carried Forward to Summary of Section No. 4</p> <p>Section No. 4</p> <p>SFD3 - WATERBORNE</p> <p>Bill No. 8</p> <p>METALWORK</p> | | | <p>R</p> | |

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| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <p><u>SECTION NO.4</u></p> <p><u>BILL NO. 10</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>"Polylink" polypropylene pipes:</u></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p> | | | |
| <p>Carried to Collection</p> | | | |
| <p>Section No. 4 SFD3 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE</p> | | | |

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

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

All pipe diameters are nominal external

Concrete pipes:

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

Vitrified clay pipes:

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

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

uPVC pipes and fittings:

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

uPVC pressure pipes and fittings:

Pipes for water supply shall be of the class stated

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

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

Carried to Collection

R

Section No. 4
SFD3 - WATERBORNE
Bill No. 10
PLUMBING AND DRAINAGE

Copper pipes:

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

Fixing of pipes

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

Lead pipes and fittings

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

Reducing fittings

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

Wire gratings

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

Septic tanks

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

Carried to Collection

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Section No. 4
SFD3 - WATERBORNE
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PLUMBING AND DRAINAGE

Exposed concrete surfaces

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

Excavations

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

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

Laying, backfilling, bedding, etc. of pipes

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

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

Flush pans

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

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

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

Carried to Collection

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Section No. 4
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Bill No. 10
PLUMBING AND DRAINAGE

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|--|--|----|----|---|--|
| <u>Waste unions</u> | | | | | |
| Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings | | | | | |
| <u>Steel sectional water tanks</u> | | | | | |
| Tanks shall comply with SABS CKS 114 | | | | | |
| <u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u> | | | | | |
| Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described | | | | | |
| Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc | | | | | |
| <u>SOIL DRAINAGE</u> | | | | | |
| <u>uPVC pipes</u> | | | | | |
| 1 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 60 | | |
| <u>Extra over uPVC pipes for fittings</u> | | | | | |
| 2 | 110mm Bend | No | 3 | | |
| 3 | 110mm Junction | No | 3 | | |
| 4 | 110 x 50mm Reducing junction | No | 3 | | |
| 5 | 110mm Double junction | No | 3 | | |
| <u>Pre-cast concrete gulleys</u> | | | | | |
| 6 | 110mm Dished gulley not exceeding 1m deep with 150mm steel grate and standard concrete gulley surround | No | 2 | | |
| Carried to Collection | | | | R | |
| Section No. 4 SFD3 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE | | | | | |

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|----|--|----|------|--|--|
| | <u>Sundries</u> | | | | |
| 7 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock | m3 | 3 | | |
| 8 | 100mm Cast iron "ABC" cleaning eye | No | 2 | | |
| 9 | Testing drainage pipe system | | Item | | |
| | <u>SANITARY FITTINGS</u> | | | | |
| | <u>"Vaal"</u> | | | | |
| 10 | 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0) | No | 2 | | |
| 11 | White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 774000) and matching 9 litre cistern (code 710034) complete with lid, fitments and flush pipe elbow and conversion bend (code 710044) and "deluxe" toilet seat | No | 3 | | |
| 12 | Vaal Sanitaryware vitreous china "Protea Paraplegic" 90° outlet pan (code 750200) and matching 9 litre cistern (code 7116LP) complete with lid, fitments, and purpose-made C.P. side-flush lever (left or right) or a back inlet exposed flushvalve. Bottom inlet water supply must be on same side as flush lever. The suite is designed to flush effectively on 6 litres with Buxton Statite seat (code 85152100) | No | 1 | | |
| | <u>WASTE UNIONS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 13 | 38mm "Cobra 316" unslotted waste and plug with chain | No | 2 | | |
| | <u>TRAPS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 14 | "Cobra Ref. 365/40" CP bottle trap | No | 2 | | |
| | <u>TAPS, VALVES, ETC</u> | | | | |
| | Carried to Collection | | | | |
| | Section No. 4 | | | | |
| | SFD3 - WATERBORNE | | | | |
| | Bill No. 10 | | | | |
| | PLUMBING AND DRAINAGE | | | | |

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|----|---|----|------|---|--|
| | <u>"Cobra Watertech"</u> | | | | |
| 15 | 15mm CP connectors | No | 5 | | |
| 16 | 25mm 1001/125RB fullway gate valve | No | 5 | | |
| 17 | "Cobra ref. 206-20" bib tap | No | 1 | | |
| 18 | Ref. 232-10 Angle regulating valve with connection pipes etc. | No | 5 | | |
| 19 | "Cobra Ref. 111-15" pillar tap | No | 2 | | |
| 20 | "Cobra Ref. 232/350" Angle regulating valve | No | 5 | | |
| 21 | COB-503-21B/N Elbow action. With 1/4 turn ceramic disc headpart, flanged backnut and blue indice for cold water application. 1/2BSP male iron connection end. | No | 1 | | |
| | <u>SANITARY PLUMBING</u> | | | | |
| | <u>uPVC pipes</u> | | | | |
| 22 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 25 | | |
| | <u>Extra over uPVC pipes for fittings</u> | | | | |
| 23 | 110mm Junction | No | 3 | | |
| 24 | 110mm Reducing junction | No | 3 | | |
| 25 | 110mm Pan connector | No | 3 | | |
| 26 | 110mm Double junction | No | 3 | | |
| 27 | 110mm "GI Two-way" vent valve | No | 3 | | |
| | <u>Sundries</u> | | | | |
| 28 | Testing waste pipe system | | Item | | |
| | Carried to Collection | | | R | |
| | Section No. 4 | | | | |
| | SFD3 - WATERBORNE | | | | |
| | Bill No. 10 | | | | |
| | PLUMBING AND DRAINAGE | | | | |

| <u>WATER SUPPLIES</u> | | | |
|--|---------------|----|----|
| <u>Class 0 copper pipes</u> | | | |
| 29 | 15mm Pipes | m | 30 |
| <u>Extra over class 0 copper pipes for capillary fittings</u> | | | |
| 30 | 15mm Fittings | No | 10 |
| Carried to Collection | | | |
| | | | R |
| Section No. 4 SFD3 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE | | | |

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Bill No. 10

PLUMBING AND DRAINAGE

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Bill No. 10

PLUMBING AND DRAINAGE

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.4</u> | | | |
| | <u>BILL NO. 12</u> | | | |
| | <u>PAINTWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ON FIBRE-CEMENT</u> | | | |
| | <u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u> | | | |
| 1 | On fascias and barge boards | m2 | 5 | |
| | <u>ON WOOD</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 2 | On doors (Internal) | m2 | 9 | |
| 3 | On doors (External) | m2 | 7 | |
| | <u>ON METAL</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 4 | On door frames | m2 | 2 | |
| 5 | On gates (Measured over the full flat area of both sides) | m2 | 7 | |
| | <u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u> | | | |
| 6 | On windows with burglar bars | m2 | 3 | |
| | Carried Forward to Summary of Section No. 4 | | | |
| | Section No. 4 | | | |
| | SFD3 - WATERBORNE | | | |
| | Bill No. 12 | | | |
| | PAINTWORK | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | BILL NO.13 | | | |
| | SECTION NO.4 | | | |
| | APRONS AROUND BUILDINGS | | | |
| | <u>Compaction of surfaces</u> | | | |
| 1 | Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density | m2 | 27 | |
| | <u>15 MPa/20 mm concrete</u> | | | |
| 2 | Aprons cast in panels to falls | m3 | 3 | |
| 3 | Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc. | m | 27 | |
| | <u>Finishing top surfaces of concrete smooth with a wood float</u> | | | |
| 4 | Aprons to falls | m2 | 27 | |
| | <u>Smooth formwork to sides</u> | | | |
| 5 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 27 | |
| | Carried Forward to Summary of Section No. 4 | | R | |
| | Section No. 4 SFD3 - WATERBORNE Bill No. 13 CONCRETE APRONS | | | |

| Bill No | Section No. 4 SFD3 - WATERBORNE <u>SECTION SUMMARY - SFD3 - WATERBORNE</u> | Page No | Amount |
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| 1 | EARTHWORKS | 67 | |
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| 3 | MASONRY | 74 | |
| 4 | WATERPROOFING | 75 | |
| 5 | ROOF COVERINGS | 78 | |
| 6 | CARPENTRY AND JOINERY | 81 | |
| 7 | IRONMONGERY | 84 | |
| 8 | METALWORK | 87 | |
| 9 | IN SITU FINISHES | 88 | |
| 10 | PLUMBING AND DRAINAGE | 97 | |
| 11 | GLAZING | 98 | |
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| 13 | CONCRETE APRONS | 100 | |
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| Section No. 4 SFD3 - WATERBORNE | | | |

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|---------|--|----------|------|--------|
| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 128 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 128 | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 16 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 4 | Soft rock | m3 | 2 | |
| 5 | Hard rock | m3 | 1 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 6 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 8 | |
| | <u>Risk of collapse of excavations</u> | | | |
| 7 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 44 | |
| | Carried to Collection | | | |
| | Section No. 5 | | | |
| | GRD7 - WATERBORNE | | | |
| | Bill No. 1 | | | |
| | EARTHWORKS | | | |

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|--|--|----|------|--|---|
| | <u>Keeping excavations free of water.</u> | | | | |
| 8 | Keeping excavations free of water other than subterranean water | m3 | Item | | |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | | |
| 9 | Under floors, steps, pavings, etc. | m3 | 11 | | |
| 10 | Backfilling to trenches, holes, etc. | m3 | 7 | | |
| | <u>Compaction of surfaces</u> | | | | |
| 11 | Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 37 | | |
| | <u>Prescribed density tests on filling</u> | | | | |
| 12 | Modified AASHTO Density tests | No | 4 | | |
| | <u>SOIL POISONING</u> | | | | |
| | <u>Soil insecticide</u> | | | | |
| 13 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 37 | | |
| 14 | To bottoms and sides of trenches, etc. | m2 | 66 | | |
| Carried to Collection | | | | | R |
| Section No. 5 GRD7 - WATERBORNE Bill No. 1 EARTHWORKS | | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO.2</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 5 | |
| 2 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 31 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 3 | Surface beds cast in panels on waterproofing. | m3 | 4 | |
| | <u>CONCRETE SUNDRIES</u> | | | |
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | | |
| 4 | Suface beds, slabs, etc. | m2 | 37 | |
| | <u>TEST CUBES</u> | | | |
| 5 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 3 | |
| | Carried to Collection | | | |
| | Section No. 5 | | | |
| | GRD7 - WATERBORNE | | | |
| | Bill No. 2 | | | |
| | CONCRETE,FORMWORK AND REINFORCEMENT | | | |

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| Section No. 5 GRD7 - WATERBORNE Bill No. 2 CONCRETE,FORMWORK AND REINFORCEMENT <u>COLLECTION</u> | | | |
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| | 106 | | |
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| | <p><u>SECTION NO.5</u></p> <p><u>BILL NO.3</u></p> <p><u>BRICKWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>BRICKWORK</u></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> | | | |
| | <p style="text-align: right;">Carried to Collection</p> <p>Section No. 5 GRD7 - WATERBORNE Bill No. 3 MASONRY</p> | | R | |

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|---|--|----|----|---|
| <u>SAMPLES</u> | | | | |
| Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6 | | | | |
| <u>FOUNDATIONS</u> | | | | |
| <u>BRICKWORK</u> | | | | |
| <u>Brickwork of NFP bricks in class II mortar</u> | | | | |
| 1 | One brick walls | m2 | 26 | |
| <u>FACE BRICKWORK</u> | | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | | |
| 2 | Extra over brickwork for face brickwork in foundation | m2 | 13 | |
| <u>SUPERSTRUCTURE</u> | | | | |
| <u>FACE BRICKWORK</u> | | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | | |
| 3 | One brickwork for face brick walls pointed both sides | m2 | 80 | |
| 4 | Half brickwork for face brick walls pointed both sides | m2 | 32 | |
| 5 | Extra over brickwork for face brickwork in beamfilling | m2 | 4 | |
| <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | | |
| 6 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 1 | |
| Carried to Collection | | | | R |
| Section No. 5 GRD7 - WATERBORNE Bill No. 3 MASONRY | | | | |

| | | | | | |
|---|---|----|-----|---|--|
| 7 | Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 8 | | |
| 8 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 12 | | |
| <u>BRICKWORK SUNDRIES</u> | | | | | |
| <u>Brick reinforcement</u> | | | | | |
| 9 | 75mm Wide reinforcement built in horizontally | m | 158 | | |
| 10 | 150mm Wide reinforcement built in horizontally | m | 257 | | |
| <u>Turning pieces</u> | | | | | |
| 11 | 220mm Wide turning piece to lintel etc | m | 4 | | |
| <u>Galvanised wire ties etc</u> | | | | | |
| 12 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 22 | | |
| <u>Ventillation bricks</u> | | | | | |
| 13 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 12 | | |
| Carried to Collection | | | | R | |
| Section No. 5 GRD7 - WATERBORNE Bill No. 3 MASONRY | | | | | |

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| Item No | Quantity | Rate | Amount |
|---|---|------|--------|
| <u>SECTION NO.5</u> | | | |
| <u>BILL NO.4</u> | | | |
| <u>WATERPROOFING</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>DAMP-PROOFING OF WALLS AND FLOORS</u> | | | |
| <u>One layer 375mm micron embossed damp proof course</u> | | | |
| 1 | In walls m | 31 | |
| <u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u> | | | |
| 2 | Under surface beds m2 | 37 | |
| <u>FLOOR AND WALLS SEALERS</u> | | | |
| <u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u> | | | |
| 3 | Around steel windows and door frames. m | 44 | |
| Carried Forward to Summary of Section No. 5 | | | R |
| Section No. 5 | | | |
| GRD7 - WATERBORNE | | | |
| Bill No. 4 | | | |
| WATERPROOFING | | | |

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 46 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 46 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u> | | | |
| 3 | 125 x 100mm Seamless eaves gutters with beaded front edge | m | 10 | |
| 4 | Extra over eaves gutter for stopped end | No | 2 | |
| 5 | Extra over eaves gutter for angle | No | 2 | |
| 6 | Extra over eaves gutter for outlet for 100mm diameter pipe | No | 2 | |
| 7 | 100mm Diameter rainwater pipes | m | 5 | |
| | Carried to Collection | | | |
| | Section No. 5 | | | |
| | GRD7 - WATERBORNE | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |

| | | | | | |
|--|--|----|---|--|---|
| 8 | Extra over rainwater pipe for eaves or plinth offset 450mm projection | No | 2 | | |
| 9 | Extra over rainwater pipe for shoe | No | 2 | | |
| Carried to Collection | | | | | R |
| Section No. 5 GRD7 - WATERBORNE Bill No. 5 ROOF COVERINGS | | | | | |

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|---|---------------------------|--|----------------------|--|
| <p>Section No. 5</p> <p>GRD7 - WATERBORNE</p> <p>Bill No. 5</p> <p>ROOF COVERINGS</p> <p><u>COLLECTION</u></p> | | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> | | <p>Amount</p> | |
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| | <p>114</p> | | | |
| <p>Carried Forward to Summary of Section No. 5</p> <p>Section No. 5</p> <p>GRD7 - WATERBORNE</p> <p>Bill No. 5</p> <p>ROOF COVERINGS</p> | | | <p>R</p> | |

| Item No | | Quantity | Rate | Amount |
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| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO.6</u> | | | |
| | <u>CARPENTRY AND JOINERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ROOFS, ETC.</u> | | | |
| | <u>Sawn softwood</u> | | | |
| 1 | 38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m | m | 47 | |
| 2 | 76 x 38mm Wall plates | m | 19 | |
| 3 | 50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m | m | 43 | |
| | <u>Sundries</u> | | | |
| 4 | Two coats creosote on sawn timbers | m ² | 15 | |
| 5 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 22 | |
| 6 | Hurricane clips | No | 90 | |
| | <u>EAVES, VERGES, ETC.</u> | | | |
| | <u>Pressed fibre-cement</u> | | | |
| 7 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 29 | |
| | <u>DOORS, ETC.</u> | | | |
| Carried to Collection | | | | R |
| Section No. 5 GRD7 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY | | | | |

| | | | | | |
|---|---|----|---|--|---|
| | <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 44mm Framed batten door 914 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1) | No | 2 | | |
| 9 | 44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1) | No | 1 | | |
| 10 | 44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2) | No | 7 | | |
| Carried to Collection | | | | | |
| Section No. 5 GRD7 - WATERBORNE Bill No. 6 CARPENTRY AND JOINERY | | | | | R |

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| Item No | | Quantity | Rate | Amount |
|---|--|----------|------|--------|
| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO.7</u> | | | |
| | <u>IRONMONGERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CATCHES, CABIN, HOOKS, ETC</u> | | | |
| | <u>Approved</u> | | | |
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 4 | |
| | <u>LOCKS</u> | | | |
| | <u>Approved</u> | | | |
| 2 | "Code 630" padlock | No | 2 | |
| 3 | Three lever mortice lockset | No | 1 | |
| 4 | Indicator lockset | No | 7 | |
| 5 | Disabled toilet handle facility indicator bolt set for sliding or hinged door lock | No | 1 | |
| | <u>DOOR CLOSERS</u> | | | |
| | <u>Approved</u> | | | |
| 6 | DORMA TS90 cam action slide channel door closer | No | 1 | |
| | <u>DOORSTOPS</u> | | | |
| Carried to Collection | | | | R |
| Section No. 5 GRD7 - WATERBORNE Bill No. 7 IRONMONGERY | | | | |

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| Item No | | Quantity | Rate | Amount |
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| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO.8</u> | | | |
| | <u>METALWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| | <u>1,2mm Single rebated frames suitable for half brick walls</u> | | | |
| 1 | Frame for door 813 x 2032mm high | No | 7 | |
| | <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 2 | Frame for door 813 x 2032mm high | No | 1 | |
| | <u>PRESSED STEEL COMBINATION DOORS AND FRAMES</u> | | | |
| | <u>"Nty" doors</u> | | | |
| 3 | "Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame | No | 2 | |
| | Carried to Collection | | R | |
| | Section No. 5 GRD7 - WATERBORNE Bill No. 8 METALWORK | | | |

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|--|---------------------------|--|----------------------|--|
| <p>Section No. 5</p> <p>GRD7 - WATERBORNE</p> <p>Bill No. 8</p> <p>METALWORK</p> <p><u>COLLECTION</u></p> | | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> | | <p>Amount</p> | |
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| | <p>123</p> | | | |
| <p>Carried Forward to Summary of Section No. 5</p> <p>Section No. 5</p> <p>GRD7 - WATERBORNE</p> <p>Bill No. 8</p> <p>METALWORK</p> | | | <p>R</p> | |

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| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO. 9</u> | | | |
| | <u>PLASTERING</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CEMENT SCREEDS TO CONCRETE</u> | | | |
| | <u>Screeds to steel trowelled, on concrete:</u> | | | |
| 1 | 30mm thick on floors | m2 | 37 | |
| | <u>FLOOR AND WALLS SEALERS</u> | | | |
| | <u>Minimum two coats approved epoxy coat:</u> | | | |
| 2 | On screed | m2 | 37 | |
| | Carried Forward to Summary of Section No. 5 | | R | |
| | Section No. 5 | | | |
| | GRD7 - WATERBORNE | | | |
| | Bill No. 9 | | | |
| | IN SITU FINISHES | | | |

| Item No | Quantity | Rate | Amount |
|--|----------|------|--------|
| <p><u>SECTION NO.5</u></p> <p><u>BILL NO. 10</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>"Polylink" polypropylene pipes:</u></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p> | | | |
| <p>Carried to Collection</p> | | | |
| <p>Section No. 5 GRD7 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE</p> | | | |

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

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

All pipe diameters are nominal external

Concrete pipes:

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

Vitrified clay pipes:

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

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

uPVC pipes and fittings:

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

uPVC pressure pipes and fittings:

Pipes for water supply shall be of the class stated

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

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

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Copper pipes:

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

Fixing of pipes

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

Lead pipes and fittings

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

Reducing fittings

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

Wire gratings

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

Septic tanks

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

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Exposed concrete surfaces

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

Excavations

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

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

Laying, backfilling, bedding, etc. of pipes

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

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

Flush pans

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

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

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

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|--|--|--|--|--|--|
| <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>Steel sectional water tanks</u></p> <p>Tanks shall comply with SABS CKS 114</p> <p><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described</p> <p>Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc</p> <p><u>SOIL DRAINAGE</u></p> <p><u>uPVC pipes</u></p> <p>1 110mm Pipes laid in and including trenches not exceeding 1m deep m 6</p> <p><u>Extra over uPVC pipes for fittings</u></p> <p>2 110mm Bend No 8</p> <p>3 110mm Junction No 8</p> <p>4 110 x 50mm Reducing junction No 8</p> <p>5 110mm Double junction No 8</p> <p><u>Pre-cast concrete gulleys</u></p> <p>6 110mm Dished gulley not exceeding 1m deep with 150mm steel grate and standard concrete gulley surround No 3</p> | | | | | |
| <p style="text-align: right;">Carried to Collection</p> <p>Section No. 5 GRD7 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE</p> | | | | | |

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|----|--|----|------|---|--|
| | <u>Sundries</u> | | | | |
| 7 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock | m3 | 4 | | |
| 8 | 100mm Cast iron "ABC" cleaning eye | No | 1 | | |
| 9 | Testing drainage pipe system | | Item | | |
| | <u>SANITARY FITTINGS</u> | | | | |
| | <u>"Vaal"</u> | | | | |
| 10 | 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0) | No | 5 | | |
| 11 | Vaal Sanitaryware vitreous china "Protea Paraplegic" 90° outlet pan (code 750200) and matching 9 litre cistern (code 7116LP) complete with lid, fitments, and purpose-made C.P. side-flush lever (left or right) or a back inlet exposed flushvalve. Bottom inlet water supply must be on same side as flush lever. The suite is designed to flush effectively on 6 litres with Buxton Statite seat (code 85152100) | No | 2 | | |
| | <u>"Betta or equally approved"</u> | | | | |
| 12 | Junior cistern, pan and seat (white) product ID 606938 | No | 7 | | |
| | <u>WASTE UNIONS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 13 | 38mm "Cobra 316" unslotted waste and plug with chain | No | 5 | | |
| | <u>TRAPS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 14 | "Cobra Ref. 365/40" CP bottle trap | No | 5 | | |
| | <u>TAPS, VALVES, ETC</u> | | | | |
| | Carried to Collection | | | R | |
| | Section No. 5 GRD7 - WATERBORNE Bill No. 10 PLUMBING AND DRAINAGE | | | | |

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|----|---|----|------|---|--|
| | <u>"Cobra Watertech"</u> | | | | |
| 15 | 15mm CP connectors | No | 5 | | |
| 16 | 25mm 1001/125RB fullway gate valve | No | 13 | | |
| 17 | "Cobra ref. 206-20" bib tap | No | 2 | | |
| 18 | Ref. 232-10 Angle regulating valve with connection pipes etc. | No | 15 | | |
| 19 | "Cobra Ref. 111-15" pillar tap | No | 2 | | |
| 20 | "Cobra Ref. 232/350" Angle regulating valve | No | 13 | | |
| 21 | COB-503-21B/N Elbow action. With 1/4 turn ceramic disc headpart, flanged backnut and blue indice for cold water application. 1/2BSP male iron connection end. | No | 1 | | |
| | <u>SANITARY PLUMBING</u> | | | | |
| | <u>uPVC pipes</u> | | | | |
| 22 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 10 | | |
| | <u>Extra over uPVC pipes for fittings</u> | | | | |
| 23 | 110mm Junction | No | 5 | | |
| 24 | 110mm Reducing junction | No | 5 | | |
| 25 | 110mm Pan connector | No | 8 | | |
| 26 | 110mm Double junction | No | 5 | | |
| 27 | 110mm "GI Two-way" vent valve | No | 5 | | |
| | <u>Sundries</u> | | | | |
| 28 | Testing waste pipe system | | Item | | |
| | Carried to Collection | | | R | |
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| <u>WATER SUPPLIES</u> | | | |
|--|---------------|----|----|
| <u>Class 0 copper pipes</u> | | | |
| 29 | 15mm Pipes | m | 30 |
| <u>Extra over class 0 copper pipes for capillary fittings</u> | | | |
| 30 | 15mm Fittings | No | 30 |
| Carried to Collection | | | |
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| | <u>SECTION NO.5</u> | | | |
| | <u>BILL NO. 12</u> | | | |
| | <u>PAINTWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ON FIBRE-CEMENT</u> | | | |
| | <u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u> | | | |
| 1 | On fascias and barge boards | m2 | 7 | |
| | <u>ON WOOD</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 2 | On doors (Internal) | m2 | 21 | |
| 3 | On doors (External) | m2 | 7 | |
| | <u>ON METAL</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 4 | On door frames | m2 | 10 | |
| 5 | On gates (Measured over the full flat area of both sides) | m2 | 7 | |
| | <u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u> | | | |
| 6 | On windows with burglar bars | m2 | 11 | |
| | Carried Forward to Summary of Section No. 5 | | | |
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| | Bill No. 12 | | | |
| | PAINTWORK | | | |

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| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 150 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 150 | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 12 | |
| 4 | Pit | m3 | 28 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 5 | Soft rock | m3 | 4 | |
| 6 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 7 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 34 | |
| | Carried to Collection | | R | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 1 | | | |
| | EARTHWORKS | | | |

| | | | | | |
|----|--|----|------|---|--|
| | <u>Risk of collapse of excavations</u> | | | | |
| 8 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 64 | | |
| | <u>Keeping excavations free of water.</u> | | | | |
| 9 | Keeping excavations free of water other than subterranean water | | Item | | |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | | |
| 10 | Under floors, steps, pavings, etc. | m3 | 8 | | |
| 11 | Backfilling to trenches, holes, etc. | m3 | 5 | | |
| | <u>Compaction of surfaces</u> | | | | |
| 12 | Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 40 | | |
| 13 | Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 20 | | |
| | <u>Prescribed density tests on filling</u> | | | | |
| 14 | Modified AASHTO Density tests | No | 4 | | |
| | <u>SOIL POISONING</u> | | | | |
| | <u>Soil insecticide</u> | | | | |
| 15 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 60 | | |
| 16 | To bottoms and sides of trenches, etc. | m2 | 49 | | |
| | Carried to Collection | | | R | |
| | Section No. 6 M8 - ENVIRO LOO Bill No. 1 EARTHWORKS | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.2</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 4 | |
| 2 | Ditto, but surface bed in pit | m3 | 3 | |
| 3 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 9 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 4 | Slabs | m3 | 2 | |
| 5 | Surface beds cast in panels on waterproofing. | m3 | 4 | |
| | <u>CONCRETE SUNDRIES</u> | | | |
| | <u>TEST CUBES</u> | | | |
| 6 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 4 | |
| | Carried to Collection | | | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 2 | | | |
| | CONCRETE, FORMWORK AND REINFORCEMENT | | | |

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|--------------------------------------|---|----|----|--|--|
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | | | |
| 7 | Suface beds, slabs, etc. | m2 | 58 | | |
| | <u>FORMWORK</u> | | | | |
| | <u>Rough formwork to sides:</u> | | | | |
| 8 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 12 | | |
| | <u>Permanent formwork to soffits:</u> | | | | |
| 9 | Slabs propped up not exceeding 1.5m high | m2 | 20 | | |
| 10 | Leave or form 500mm diameter opening in top of floor slab | No | 8 | | |
| | <u>REINFORCEMENT</u> | | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | | | |
| 11 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 46 | | |
| Carried to Collection | | | | | |
| Section No. 6 | | | | | |
| M8 - ENVIRO LOO | | | | | |
| Bill No. 2 | | | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | | | |

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Section No. 6

M8 - ENVIRO LOO

Bill No. 2

CONCRETE, FORMWORK AND REINFORCEMENT

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Section No. 6

M8 - ENVIRO LOO

Bill No. 2

CONCRETE, FORMWORK AND REINFORCEMENT

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <p><u>SECTION NO.6</u></p> <p><u>BILL NO.3</u></p> <p><u>BRICKWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>BRICKWORK</u></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> | | | |
| | <p style="text-align: right;">Carried to Collection</p> <p>Section No. 6 M8 - ENVIRO LOO Bill No. 3 MASONRY</p> | | R | |

| | | | | | |
|---|--|----|----|---|--|
| <u>SAMPLES</u> | | | | | |
| Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6 | | | | | |
| <u>FOUNDATIONS</u> | | | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | | | |
| 1 | One brick walls | m2 | 11 | | |
| 2 | One brick walls in pit | m2 | 42 | | |
| 3 | 4Half brick corbelling in pit | m | 6 | | |
| <u>FACE BRICKWORK</u> | | | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 6 | | |
| <u>SUPERSTRUCTURE</u> | | | | | |
| <u>FACE BRICKWORK</u> | | | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | | | |
| 5 | One brickwork for face brick walls pointed both sides | m2 | 95 | | |
| 6 | Half brickwork for face brick walls pointed both sides | m2 | 36 | | |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 5 | | |
| 8 | Fair raking and cutting | m | 11 | | |
| Carried to Collection | | | | R | |
| Section No. 6 M8 - ENVIRO LOO Bill No. 3 MASONRY | | | | | |

| | | | | | |
|----|---|----|-----|---|--|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 9 | | |
| 10 | Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 8 | | |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 8 | | |
| | <u>BRICKWORK SUNDRIES</u> | | | | |
| | <u>Brick reinforcement</u> | | | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 120 | | |
| 13 | 150mm Wide reinforcement built in horizontally | m | 599 | | |
| | <u>Turning pieces</u> | | | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 10 | | |
| | <u>Galvanised wire ties etc</u> | | | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 26 | | |
| | <u>Prestressed fabricated lintels</u> | | | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 8 | | |
| | <u>Ventillation bricks</u> | | | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 15 | | |
| | Carried to Collection | | | R | |
| | Section No. 6 | | | | |
| | M8 - ENVIRO LOO | | | | |
| | Bill No. 3 | | | | |
| | MASONRY | | | | |

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|--|----------------|---|--------|
| Section No. 6 M8 - ENVIRO LOO Bill No. 3 MASONRY <u>COLLECTION</u> | | | |
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| | 147 | | |
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| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.4</u> | | | |
| | <u>WATERPROOFING</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>DAMP-PROOFING OF WALLS AND FLOORS</u> | | | |
| | <u>One layer 375mm micron embossed damp proof course</u> | | | |
| 1 | In walls | m | 32 | |
| | <u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u> | | | |
| 2 | Under surface beds | m2 | 40 | |
| | <u>FLOOR AND WALLS SEALERS</u> | | | |
| | <u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u> | | | |
| 3 | Around steel windows and door frames. | m | 39 | |
| | Carried Forward to Summary of Section No. 6 | | R | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 4 | | | |
| | WATERPROOFING | | | |

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | NOTE : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No. 124 for CPAP formula purposes | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 58 | |
| | <u>Sundries</u> | | | |
| 2 | 12" Thermal resistance sisalation laid on purlins | m2 | 58 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u> | | | |
| 3 | 125 x 100mm Seamless eaves gutters with beaded front edge | m | 13 | |
| 4 | Extra over eaves gutter for stopped end | No | 2 | |
| 5 | Extra over eaves gutter for angle | No | 2 | |
| 6 | Extra over eaves gutter for outlet for 100mm diameter pipe | No | 2 | |
| 7 | 100mm Diameter rainwater pipes | m | 5 | |
| | Carried to Collection | | | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------------|------|--------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.6</u> | | | |
| | <u>CARPENTRY AND JOINERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ROOFS, ETC.</u> | | | |
| | <u>Sawn softwood</u> | | | |
| 1 | 38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m | m | 57 | |
| 2 | 76 x 38mm Wall plates | m | 24 | |
| 3 | 50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m | m | 51 | |
| | <u>Sundries</u> | | | |
| 4 | Two coats creosote on sawn timbers | m ² | 40 | |
| 5 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 26 | |
| 6 | Hurricane clips | No | 60 | |
| | <u>EAVES, VERGES, ETC.</u> | | | |
| | <u>Pressed fibre-cement</u> | | | |
| 7 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 34 | |
| | <u>DOORS, ETC.</u> | | | |
| | Carried to Collection | | R | |
| | Section No. 6 M8 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY | | | |

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| Item No | | Quantity | Rate | Amount |
|---|--|----------|------|--------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.7</u> | | | |
| | <u>IRONMONGERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CATCHES, CABIN, HOOKS, ETC</u> | | | |
| | <u>Approved</u> | | | |
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 2 | |
| | <u>LOCKS</u> | | | |
| | <u>Approved</u> | | | |
| 2 | "Code 630" padlock | No | 2 | |
| 3 | Three lever mortice lockset | No | 1 | |
| 4 | Indicator lockset | No | 8 | |
| | <u>DOORSTOPS</u> | | | |
| | <u>Approved</u> | | | |
| 5 | 38mm Diameter rubber door stop plugged | No | 9 | |
| | <u>LETTERS, NAMEPLATES, ETC.</u> | | | |
| | <u>"Union" or similar approved</u> | | | |
| 6 | 75 x 150mm Natural anodised aluminium plate with male or female symbol | No | 1 | |
| | <u>BATHROOM FITTINGS</u> | | | |
| Carried to Collection | | | R | |
| Section No. 6 M8 - ENVIRO LOO Bill No. 7 IRONMONGERY | | | | |

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Section No. 6

M8 - ENVIRO LOO

Bill No. 7

IRONMONGERY

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M8 - ENVIRO LOO
Bill No. 7
IRONMONGERY

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| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.8</u> | | | |
| | <u>METALWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| | <u>1,2mm Single rebated frames suitable for half brick walls</u> | | | |
| 1 | Frame for door 813 x 2032mm high | No 8 | | |
| | <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 2 | Frame for door 813 x 2032mm high | No 1 | | |
| | <u>STEEL WINDOWS, DOORS, ETC</u> | | | |
| 3 | Window type NE1, 533 x 654mm high including burglar bars | No 11 | | |
| 4 | Window type NE 7,1022 x 654mm high including burglar bars | No 4 | | |
| | <u>WELDED SCREENS, GATES, ETC</u> | | | |
| | <u>Steel gates and frames</u> | | | |
| 5 | Purpose made square hallow section mild steel security gate, size 813 x 2032mm High | No 1 | | |
| | Carried Forward to Summary of Section No. 6 | | R | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 8 | | | |
| | METALWORK | | | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO. 9</u> | | | |
| | <u>PLASTERING</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CEMENT SCREEDS TO CONCRETE</u> | | | |
| | <u>Screeds to steel trowelled, on concrete:</u> | | | |
| 1 | 30mm thick on floors | m2 | 46 | |
| | <u>INTERNAL PLASTER</u> | | | |
| | <u>Cement plaster on brickwork or blockwork</u> | | | |
| 2 | On pits walls | m2 | 69 | |
| | <u>FLOOR AND WALLS SEALERS</u> | | | |
| | <u>Minimum two coats approved epoxy coat:</u> | | | |
| 3 | On screed | m2 | 46 | |
| 4 | On internal textured plaster walls and floors in pit | m2 | 84 | |
| | Carried Forward to Summary of Section No. 6 | | | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 9 | | | |
| | IN SITU FINISHES | | | |
| | | | R | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|----------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO. 10</u> | | | |
| | <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ENVIRO-LOO TOILET SYSTEMS</u> | | | |
| 1 | Supply and installation of complete Enviroo loo System 1040 industrial STD CER/ABS-1 (CODE FG-1040 STDCA/A) | No | 8 | |
| 2 | Budgetary allowance to be recovered by Employer for the supply of complete Enviroo-loo System : Urinal 4 pans (ABS) (CODE FG - 862B) | No | 2 | |
| 3 | Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 4 | |
| | <u>SUPERVISION OF INSTALLATION OF "ENVIRO LOO"</u> | | | |
| | <u>The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of "enviro loo":</u> | | | |
| 4 | Two site visits to be made by the "Enviro loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed corretly at which time a Certificate of compliance should be issued between the Department of Public Works Limpopo and Enviro Loo Options Limpopo. (CONTRACTOR SHOULD NOT PRICE FOR THIS ITEM | Item | | 2 000,00 |
| 5 | Profit and attendance for above | Item | | |
| | Carried to Collection | | R | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 10 | | | |
| | PLUMBING AND DRAINAGE | | | |

| <u>TAPS, VALVES, ETC</u> | | | | | |
|--|---|----|---|---|--|
| 6 | 19mm Chromium plated push-button taps to wash troughs | No | 4 | | |
| Carried to Collection | | | | R | |
| Section No. 6 M8 - ENVIRO LOO Bill No. 10 PLUMBING AND DRAINAGE | | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO. 12</u> | | | |
| | <u>PAINTWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ON FIBRE-CEMENT</u> | | | |
| | <u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u> | | | |
| 1 | On fascias and barge boards | m2 | 12 | |
| | <u>ON WOOD</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 2 | On doors (Internal) | m2 | 12 | |
| 3 | On doors (External) | m2 | 4 | |
| | <u>ON METAL</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 4 | On door frames | m2 | 5 | |
| 5 | On gates (Measured over the full flat area of both sides) | m2 | 2 | |
| | <u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u> | | | |
| 6 | On windows with burglar bars | m2 | 6 | |
| | Carried Forward to Summary of Section No. 6 | | | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 12 | | | |
| | PAINTWORK | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.6</u> | | | |
| | <u>BILL NO.13</u> | | | |
| | <u>APRONS AROUND BUILDINGS</u> | | | |
| | <u>Compaction of surfaces</u> | | | |
| 1 | Compaction of ground surface under aprons including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density | m2 | 32 | |
| | <u>15 MPa/20 mm concrete</u> | | | |
| 2 | Aprons cast in panels to falls | m3 | 3 | |
| 3 | Thickening down apron on edge 110mm x 200mm wide, incl. excavation, backfilling, cart away, etc. | m | 32 | |
| | <u>Finishing top surfaces of concrete smooth with a wood float</u> | | | |
| 4 | Aprons to falls | m2 | 32 | |
| | <u>Smooth formwork to sides</u> | | | |
| 5 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 32 | |
| | Carried Forward to Summary of Section No. 6 | | R | |
| | Section No. 6 | | | |
| | M8 - ENVIRO LOO | | | |
| | Bill No. 13 | | | |
| | CONCRETE APRONS | | | |

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| | M8 - ENVIRO LOO | | | | | |
| | <u>SECTION SUMMARY - M8 - ENVIRO LOO</u> | | | | | |
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| | 2 | CONCRETE,FORMWORK AND REINFORCEMENT | | | | 144 |
| | 3 | MASONRY | | | | 148 |
| | 4 | WATERPROOFING | | | | 149 |
| | 5 | ROOF COVERINGS | | | | 152 |
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| 13 | CONCRETE APRONS | 166 | | | | |
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| M8 - ENVIRO LOO | | | | | | |

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|---------|--|----------|------|--------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 113 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 113 | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 8 | |
| 4 | Pit | m3 | 27 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 5 | Soft rock | m3 | 4 | |
| 6 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 7 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 32 | |
| | Carried to Collection | | R | |
| | Section No. 7 | | | |
| | F8 - ENVIRO LOO | | | |
| | Bill No. 1 | | | |
| | EARTHWORKS | | | |

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|----|--|----|------|---|--|
| | <u>Risk of collapse of excavations</u> | | | | |
| 8 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 54 | | |
| | <u>Keeping excavations free of water.</u> | | | | |
| 9 | Keeping excavations free of water other than subterranean water | | Item | | |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | | |
| 10 | Under floors, steps, pavings, etc. | m3 | 8 | | |
| 11 | Backfilling to trenches, holes, etc. | m3 | 4 | | |
| | <u>Compaction of surfaces</u> | | | | |
| 12 | Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 28 | | |
| 13 | Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 20 | | |
| | <u>Prescribed density tests on filling</u> | | | | |
| 14 | Modified AASHTO Density tests | No | 7 | | |
| | <u>SOIL POISONING</u> | | | | |
| | <u>Soil insecticide</u> | | | | |
| 15 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 28 | | |
| 16 | To bottoms and sides of trenches, etc. | m2 | 86 | | |
| | Carried to Collection | | | R | |
| | Section No. 7 F8 - ENVIRO LOO Bill No. 1 EARTHWORKS | | | | |

Section No. 7

F8 - ENVIRO LOO

Bill No. 1

EARTHWORKS

COLLECTION

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Section No. 7
 F8 - ENVIRO LOO
 Bill No. 1
 EARTHWORKS

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO.2</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 3 | |
| 2 | Ditto, but surface bed in pit | m3 | 3 | |
| 3 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 25 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 4 | Slabs | m3 | 2 | |
| 5 | Surface beds cast in panels on waterproofing. | m3 | 3 | |
| | <u>TEST CUBES</u> | | | |
| 6 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 7 | |
| | Carried to Collection | | | |
| | Section No. 7 | | | |
| | F8 - ENVIRO LOO | | | |
| | Bill No. 2 | | | |
| | CONCRETE,FORMWORK AND REINFORCEMENT | | | |

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|----|---|----|----|--|--|
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | | | |
| 7 | Suface beds, slabs, etc. | m2 | 46 | | |
| | <u>FORMWORK</u> | | | | |
| | <u>Rough formwork to sides:</u> | | | | |
| 8 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 9 | | |
| | <u>Permanent formwork to soffits:</u> | | | | |
| 9 | Slabs propped up not exceeding 1.5m high | m2 | 20 | | |
| 10 | Leave or form 500mm diameter opening in top of floor slab | No | 8 | | |
| | <u>REINFORCEMENT</u> | | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | | | |
| 11 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 46 | | |
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| <p>Section No. 7</p> <p>F8 - ENVIRO LOO</p> <p>Bill No. 2</p> <p>CONCRETE,FORMWORK AND REINFORCEMENT</p> <p><u>COLLECTION</u></p> | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> <p>171</p> | | <p>Amount</p> |
| | <p>172</p> | | <p>-----</p> |
| | | | <p>-----</p> |
| <p>Carried Forward to Summary of Section No. 7</p> <p>Section No. 7</p> <p>F8 - ENVIRO LOO</p> <p>Bill No. 2</p> <p>CONCRETE,FORMWORK AND REINFORCEMENT</p> | | <p>R</p> | <p>-----</p> |

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <p><u>SECTION NO.7</u></p> <p><u>BILL NO.3</u></p> <p><u>BRICKWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>BRICKWORK</u></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> | | | |
| | Carried to Collection | | R | |
| | <p>Section No. 7</p> <p>F8 - ENVIRO LOO</p> <p>Bill No. 3</p> <p>MASONRY</p> | | | |

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|---|--|----|----|---|--|
| <u>SAMPLES</u> | | | | | |
| Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6 | | | | | |
| <u>FOUNDATIONS</u> | | | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | | | |
| 1 | One brick walls | m2 | 8 | | |
| 2 | One brick walls in pit | m2 | 53 | | |
| 3 | Half brick corbelling in pit | m | 50 | | |
| <u>FACE BRICKWORK</u> | | | | | |
| Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints | | | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 4 | | |
| <u>SUPERSTRUCTURE</u> | | | | | |
| <u>FACE BRICKWORK</u> | | | | | |
| Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints | | | | | |
| 5 | One brickwork for face brick walls pointed both sides | m2 | 76 | | |
| 6 | Half brickwork for face brick walls pointed both sides | m2 | 32 | | |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 4 | | |
| 8 | Fair raking and cutting | m | 6 | | |
| Carried to Collection | | | | R | |
| Section No. 7 F8 - ENVIRO LOO Bill No. 3 MASONRY | | | | | |

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|----|--|----|-----|---|--|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 8 | | |
| 10 | Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 7 | | |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 8 | | |
| | <u>BRICKWORK SUNDRIES</u> | | | | |
| | <u>Brick reinforcement</u> | | | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 105 | | |
| 13 | 150mm Wide reinforcement built in horizontally | m | 501 | | |
| | <u>Turning pieces</u> | | | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 7 | | |
| | <u>Galvanised wire ties etc</u> | | | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 20 | | |
| | <u>Prestressed fabricated lintels</u> | | | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 9 | | |
| | <u>Ventillation bricks</u> | | | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 11 | | |
| | Carried to Collection | | | R | |
| | Section No. 7 F8 - ENVIRO LOO Bill No. 3 MASONRY | | | | |

Section No. 7

F8 - ENVIRO LOO

Bill No. 3

MASONRY

COLLECTION

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Section No. 7
F8 - ENVIRO LOO
Bill No. 3
MASONRY

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 43 | |
| | <u>ROOF AND WALL INSULATION</u> | | | |
| | <u>Sundries</u> | | | |
| | <u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u> | | | |
| 2 | Insulation laid taut over purlins (at approximately 1 000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires | m2 | 43 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u> | | | |
| 3 | 125 x 100mm Seamless eaves gutters with beaded front edge | m | 9 | |
| 4 | Extra over eaves gutter for stopped end | No | 2 | |
| 5 | Extra over eaves gutter for angle | No | 2 | |
| 6 | Extra over eaves gutter for outlet for 100mm diameter pipe | No | 2 | |
| | Carried to Collection | | | |
| | Section No. 7 | | | |
| | F8 - ENVIRO LOO | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |

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|--|--|----|---|--|---|
| 7 | 100mm Diameter rainwater pipes | m | 5 | | |
| 8 | Extra over rainwater pipe for eaves or plinth offset 450mm projection | No | 2 | | |
| 9 | Extra over rainwater pipe for shoe | No | 2 | | |
| Carried to Collection | | | | | R |
| Section No. 7 F8 - ENVIRO LOO Bill No. 5 ROOF COVERINGS | | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------------|------|--------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO.6</u> | | | |
| | <u>CARPENTRY AND JOINERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ROOFS, ETC.</u> | | | |
| | <u>Sawn softwood</u> | | | |
| 1 | 38 x 114mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m | m | 41 | |
| 2 | 76 x 38mm Wall plates | m | 17 | |
| 3 | 50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m | m | 40 | |
| | <u>Sundries</u> | | | |
| 4 | Two coats creosote on sawn timbers | m ² | 13 | |
| 5 | 6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together | No | 20 | |
| 6 | Hurricane clips | No | 72 | |
| | <u>EAVES, VERGES, ETC.</u> | | | |
| | <u>Pressed fibre-cement</u> | | | |
| 7 | 15 x 230mm Fascias and barge boards including galvanised steel H-profile jointing strips | m | 19 | |
| | <u>DOORS, ETC.</u> | | | |
| | Carried to Collection | | R | |
| | Section No. 7 F8 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY | | | |

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|---|---|----|---|---|--|
| | <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1) | No | 1 | | |
| 9 | 44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2) | No | 8 | | |
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| Carried to Collection | | | | R | |
| Section No. 7 F8 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY | | | | | |

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| <p>Section No. 7</p> <p>F8 - ENVIRO LOO</p> <p>Bill No. 6</p> <p>CARPENTRY AND JOINERY</p> <p><u>COLLECTION</u></p> <p>Total Brought Forward from Page No.</p> <p>Carried Forward to Summary of Section No. 7</p> <p>Section No. 7</p> <p>F8 - ENVIRO LOO</p> <p>Bill No. 6</p> <p>CARPENTRY AND JOINERY</p> | <p>Page No</p> <p>182</p> <p>183</p> | | <p>Amount</p> <p>-----</p> <p>-----</p> <p>R</p> |
|--|---|--|---|

| Item No | | Quantity | Rate | | Amount |
|---|--|----------|------|---|--------|
| | <u>SECTION NO.7</u> | | | | |
| | <u>BILL NO.7</u> | | | | |
| | <u>IRONMONGERY</u> | | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | | |
| | <u>CATCHES, CABIN, HOOKS, ETC</u> | | | | |
| | <u>Approved</u> | | | | |
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 1 | | |
| | <u>LOCKS</u> | | | | |
| | <u>Approved</u> | | | | |
| 2 | "Code 630" padlock | No | 2 | | |
| 3 | Three lever mortice lockset | No | 1 | | |
| 4 | Indicator lockset | No | 8 | | |
| | <u>DOORSTOPS</u> | | | | |
| | <u>Approved</u> | | | | |
| 5 | 38mm Diameter rubber door stop plugged | No | 9 | | |
| | <u>LETTERS, NAMEPLATES, ETC.</u> | | | | |
| | <u>"Union" or similar approved</u> | | | | |
| 6 | 75 x 150mm Natural anodised aluminium plate with female symbol | No | 1 | | |
| | <u>BATHROOM FITTINGS</u> | | | | |
| Carried to Collection | | | | R | |
| Section No. 7 F8 - ENVIRO LOO Bill No. 7 IRONMONGERY | | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO.8</u> | | | |
| | <u>METALWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| | <u>1,2mm Single rebated frames suitable for half brick walls</u> | | | |
| 1 | Frame for door 813 x 2032mm high | No 8 | | |
| | <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 2 | Frame for door 813 x 2032mm high | No 1 | | |
| | <u>STEEL WINDOWS, DOORS, ETC</u> | | | |
| | <u>Standard industrial windows with type "B1" burglar bars to opening sashes</u> | | | |
| 3 | Window type NE1, 533 x 654mm high | No 8 | | |
| 4 | Window type NE 7,1022 x 654mm high | No 3 | | |
| | <u>WELDED SCREENS, GATES, ETC</u> | | | |
| | <u>Steel gates and frames</u> | | | |
| 5 | Purpose made square hallow section mild steel security gate, size 813 x 2032mm High | No 1 | | |
| | Carried Forward to Summary of Section No. 7 | | R | |
| | Section No. 7 | | | |
| | F8 - ENVIRO LOO | | | |
| | Bill No. 8 | | | |
| | METALWORK | | | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO. 9</u> | | | |
| | <u>PLASTERING</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CEMENT SCREEDS TO CONCRETE</u> | | | |
| | <u>Screeds to steel trowelled, on concrete:</u> | | | |
| 1 | 30mm thick on floors | m2 | 34 | |
| | <u>INTERNAL PLASTER</u> | | | |
| | <u>Cement plaster on brickwork or blockwork</u> | | | |
| 2 | On pits walls | m2 | 69 | |
| | <u>FLOOR AND WALLS SEALERS</u> | | | |
| | <u>Minimum two coats approved epoxy coat:</u> | | | |
| 3 | On screed | m2 | 34 | |
| 4 | On internal textured plaster walls and floors in pit | m2 | 84 | |
| | Carried Forward to Summary of Section No. 7 | | R | |
| | Section No. 7 | | | |
| | F8 - ENVIRO LOO | | | |
| | Bill No. 9 | | | |
| | IN SITU FINISHES | | | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|----------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO.10</u> | | | |
| | <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ENVIRO-LOO TOILET SYSTEMS</u> | | | |
| 1 | Supply and installation of complete Enviroo loo System 1040 industrial STD CER/ABS-1 (CODE FG-1040 STDCA/A) | No | 8 | |
| | <u>SUPERVISION OF INSTALLATION OF "ENVIRO LOO"</u> | | | |
| | <u>The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of "enviro loo":</u> | | | |
| 2 | Two site visits to be made by the "Enviro loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed corretly at which time a Certificate of compliance should be issued between the Department of Public Works Limpopo and Enviro Loo Options Limpopo. (CONTRACTOR SHOULD NOT PRICE FOR THIS ITEM | | Item | 2 000,00 |
| 3 | Profit and attendance for above | | Item | |
| | <u>TAPS, VALVES, ETC</u> | | | |
| 4 | 19mm Chromium plated push-buton taps to wash troughs | No | 4 | |
| | <u>Sundires</u> | | | |
| 5 | Stainless-steel SHE-BIN protection cage plugged to walls | No | 8 | |
| | Carried Forward to Summary of Section No. 7 | | | |
| | Section No. 7 | | | |
| | F8 - ENVIRO LOO | | | |
| | Bill No. 10 | | | |
| | PLUMBING AND DRAINAGE | | | |
| | | | R | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.7</u> | | | |
| | <u>BILL NO. 12</u> | | | |
| | <u>PAINTWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ON FIBRE-CEMENT</u> | | | |
| | <u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u> | | | |
| 1 | On fascias and barge boards | m2 | 6 | |
| | <u>ON WOOD</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 2 | On doors (Internal) | m2 | 24 | |
| 3 | On doors (External) | m2 | 4 | |
| | <u>ON METAL</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 4 | On door frames | m2 | 5 | |
| 5 | On gates (Measured over the full flat area of both sides) | m2 | 4 | |
| | <u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u> | | | |
| 6 | On windows with burglar bars | m2 | 5 | |
| | Carried Forward to Summary of Section No. 7 | | | |
| | Section No. 7 | | | |
| | F8 - ENVIRO LOO | | | |
| | Bill No. 12 | | | |
| | PAINTWORK | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.8</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 151 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 151 | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Trenches | m3 | 11 | |
| 4 | Pit | m3 | 31 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 5 | Soft rock | m3 | 4 | |
| 6 | Hard rock | m3 | 2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 7 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 36 | |
| | Carried to Collection | | R | |
| | Section No. 8 FD7 - ENVIRO LOO Bill No. 1 EARTHWORKS | | | |

| | | | | | |
|---|--|----|------|---|--|
| | <u>Risk of collapse of excavations</u> | | | | |
| 8 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 54 | | |
| | <u>Keeping excavations free of water.</u> | | | | |
| 9 | Keeping excavations free of water other than subterranean water | | Item | | |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | | |
| 10 | Under floors, steps, pavings, etc. | m3 | 8 | | |
| 11 | Backfilling to trenches, holes, etc. | m3 | 4 | | |
| | <u>Compaction of surfaces</u> | | | | |
| 12 | Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 28 | | |
| 13 | Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 20 | | |
| | <u>Prescribed density tests on filling</u> | | | | |
| 14 | Modified AASHTO Density tests | No | 7 | | |
| | <u>SOIL POISONING</u> | | | | |
| | <u>Soil insecticide</u> | | | | |
| 15 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 28 | | |
| 16 | To bottoms and sides of trenches, etc. | m2 | 86 | | |
| Carried to Collection | | | | R | |
| Section No. 8 FD7 - ENVIRO LOO Bill No. 1 EARTHWORKS | | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.8</u> | | | |
| | <u>BILL NO.2</u> | | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to | | | |
| | be used - PW 371" | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 1 | Strip footings | m3 | 3 | |
| 2 | Ditto, but surface bed in pit | m3 | 3 | |
| 3 | Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc. | m | 25 | |
| | <u>REINFORCED CONCRETE, ETC</u> | | | |
| | <u>25Mpa/19mm Concrete</u> | | | |
| 4 | Slabs | m3 | 2 | |
| 5 | Surface beds cast in panels on waterproofing. | m3 | 3 | |
| | <u>TEST CUBES</u> | | | |
| 6 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 7 | |
| | Carried to Collection | | | |
| | Section No. 8 | | | |
| | FD7 - ENVIRO LOO | | | |
| | Bill No. 2 | | | |
| | CONCRETE,FORMWORK AND REINFORCEMENT | | | |

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|--------------------------------------|---|----|----|--|---|
| | <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | | | |
| 7 | Suface beds, slabs, etc. | m2 | 46 | | |
| | <u>FORMWORK</u> | | | | |
| | <u>Rough formwork to sides:</u> | | | | |
| 8 | Edges, risers, ends and reveals not exceeding 300mm high or wide | m | 9 | | |
| | <u>Permanent formwork to soffits:</u> | | | | |
| 9 | Slabs propped up not exceeding 1.5m high | m2 | 20 | | |
| 10 | Leave or form 500mm diameter opening in top of floor slab | No | 8 | | |
| | <u>REINFORCEMENT</u> | | | | |
| | <u>Mesh Reinforcement (measure nett)</u> | | | | |
| 11 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 46 | | |
| Carried to Collection | | | | | R |
| Section No. 8 | | | | | |
| FD7 - ENVIRO LOO | | | | | |
| Bill No. 2 | | | | | |
| CONCRETE, FORMWORK AND REINFORCEMENT | | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <p><u>SECTION NO.8</u></p> <p><u>BILL NO.3</u></p> <p><u>BRICKWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>BRICKWORK</u></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Hollow walls etc</p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p><u>Pointing</u></p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> | | | |
| | <p style="text-align: right;">Carried to Collection</p> | | R | |
| | <p>Section No. 8 FD7 - ENVIRO LOO Bill No. 3 MASONRY</p> | | | |

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|---|--|----|----|---|--|
| <u>SAMPLES</u> | | | | | |
| Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6 | | | | | |
| <u>FOUNDATIONS</u> | | | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | | | |
| 1 | One brick walls | m2 | 8 | | |
| 2 | One brick walls in pit | m2 | 53 | | |
| 3 | Half brick corbelling in pit | m | 50 | | |
| <u>FACE BRICKWORK</u> | | | | | |
| Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints | | | | | |
| 4 | Extra over brickwork for face brickwork in foundation | m2 | 4 | | |
| <u>SUPERSTRUCTURE</u> | | | | | |
| <u>FACE BRICKWORK</u> | | | | | |
| Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints | | | | | |
| 5 | One brickwork for face brick walls pointed both sides | m2 | 76 | | |
| 6 | Half brickwork for face brick walls pointed both sides | m2 | 32 | | |
| 7 | Extra over brickwork for face brickwork in beamfilling | m2 | 4 | | |
| 8 | Fair raking and cutting | m | 6 | | |
| Carried to Collection | | | | R | |
| Section No. 8 FD7 - ENVIRO LOO Bill No. 3 MASONRY | | | | | |

| | | | | | |
|----|--|----|-----|---|--|
| | <u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 4000.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u> | | | | |
| 9 | Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit | m | 8 | | |
| 10 | Extra over brickwork for brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle | m | 7 | | |
| 11 | Fair cutting and fitting around pipe not exceeding 100mm diameter. | No | 8 | | |
| | <u>BRICKWORK SUNDRIES</u> | | | | |
| | <u>Brick reinforcement</u> | | | | |
| 12 | 75mm Wide reinforcement built in horizontally | m | 105 | | |
| 13 | 150mm Wide reinforcement built in horizontally | m | 501 | | |
| | <u>Turning pieces</u> | | | | |
| 14 | 220mm Wide turning piece to lintel etc | m | 7 | | |
| | <u>Galvanised wire ties etc</u> | | | | |
| 15 | 6mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork | No | 20 | | |
| | <u>Prestressed fabricated lintels</u> | | | | |
| 16 | Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m | m | 10 | | |
| | <u>Ventillation bricks</u> | | | | |
| 17 | Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze | No | 11 | | |
| | Carried to Collection | | | R | |
| | Section No. 8 FD7 - ENVIRO LOO Bill No. 3 MASONRY | | | | |

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|---|---------------------------|--|----------------------|--|
| <p>Section No. 8</p> <p>FD7 - ENVIRO LOO</p> <p>Bill No. 3</p> <p>MASONRY</p> <p><u>COLLECTION</u></p> | | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> | | <p>Amount</p> | |
| | <p>201</p> | | | |
| | <p>202</p> | | | |
| | <p>203</p> | | | |
| <p>Carried Forward to Summary of Section No. 8</p> <p>Section No. 8</p> <p>FD7 - ENVIRO LOO</p> <p>Bill No. 3</p> <p>MASONRY</p> | | | <p>R</p> | |

| Item No | Quantity | Rate | Amount |
|--|---|------|--------|
| <u>SECTION NO.8</u> | | | |
| <u>BILL NO.4</u> | | | |
| <u>WATERPROOFING</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>DAMP-PROOFING OF WALLS AND FLOORS</u> | | | |
| <u>One layer 375mm micron embossed damp proof course</u> | | | |
| 1 | In walls m | 31 | |
| <u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u> | | | |
| 2 | Under surface beds m2 | 34 | |
| <u>FLOOR AND WALLS SEALERS</u> | | | |
| <u>"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:</u> | | | |
| 3 | Around steel windows and door frames. m | 29 | |
| Carried Forward to Summary of Section No. 8 | | | R |
| Section No. 8 | | | |
| FD7 - ENVIRO LOO | | | |
| Bill No. 4 | | | |
| WATERPROOFING | | | |

| Item No | | Quantity | Rate | Amount |
|---------|---|----------|------|--------|
| | <u>SECTION NO.8</u> | | | |
| | <u>BILL NO.5</u> | | | |
| | <u>ROOF COVERINGS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>PROFILED METAL SHEETING AND ACCESSORIES</u> | | | |
| | <u>0,58mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u> | | | |
| 1 | Roof covering with pitch not exceeding 25 degrees | m2 | 47 | |
| | <u>ROOF AND WALL INSULATION</u> | | | |
| | <u>Sundries</u> | | | |
| | <u>"Sisalation 410" housing grade glass fibre reinforced aluminium foil bonded insulation</u> | | | |
| 2 | Insulation laid taut over purlins (at approximately 1 000mm centres) and fixed concurrent with roof covering including galvanised steel straining wires | m2 | 47 | |
| | <u>RAINWATER DISPOSAL</u> | | | |
| | <u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u> | | | |
| 3 | 125 x 100mm Seamless eaves gutters with beaded front edge | m | 10 | |
| 4 | Extra over eaves gutter for stopped end | No | 2 | |
| 5 | Extra over eaves gutter for angle | No | 2 | |
| 6 | Extra over eaves gutter for outlet for 100mm diameter pipe | No | 2 | |
| | Carried to Collection | | | |
| | Section No. 8 | | | |
| | FD7 - ENVIRO LOO | | | |
| | Bill No. 5 | | | |
| | ROOF COVERINGS | | | |

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| <p>Section No. 8</p> <p>FD7 - ENVIRO LOO</p> <p>Bill No. 5</p> <p>ROOF COVERINGS</p> <p><u>COLLECTION</u></p> | | | | |
| <p>Total Brought Forward from Page No.</p> | <p>Page No</p> | | <p>Amount</p> | |
| | <p>206</p> | | | |
| | <p>207</p> | | | |
| <p>Carried Forward to Summary of Section No. 8</p> <p>Section No. 8</p> <p>FD7 - ENVIRO LOO</p> <p>Bill No. 5</p> <p>ROOF COVERINGS</p> | | | <p>R</p> | |

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|--|---|----|---|--|---|
| | <u>Wrought meranti doors hung to steel frames</u> | | | | |
| 8 | 44mm Framed batten door 914 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1) | No | 2 | | |
| 9 | 44mm Framed batten door 813 x 2032mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed one side boarding and including weatherboard (D1) | No | 1 | | |
| 10 | 44mm Purpose made Framed batten door 813 x 1882mm high of 44 x 150mm top rail and stiles, 22 x 150mm middle ledge and braces and 22 x 220mm bottom rail filled in with 22mm V-jointed (door raised by 120mm from bottom) (D2) | No | 7 | | |
| Carried to Collection | | | | | R |
| Section No. 8 FD7 - ENVIRO LOO Bill No. 6 CARPENTRY AND JOINERY | | | | | |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.8</u> | | | |
| | <u>BILL NO.7</u> | | | |
| | <u>IRONMONGERY</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CATCHES, CABIN, HOOKS, ETC</u> | | | |
| | <u>Approved</u> | | | |
| 1 | 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged | No | 2 | |
| | <u>LOCKS</u> | | | |
| | <u>Approved</u> | | | |
| 2 | "Code 630" padlock | No | 2 | |
| 3 | Three lever mortice lockset | No | 2 | |
| 4 | Indicator lockset | No | 7 | |
| 5 | Indicator lockset | No | 8 | |
| | <u>DOOR CLOSERS</u> | | | |
| | <u>Approved</u> | | | |
| 6 | DORMA TS90 cam action slide channel door closer | No | 1 | |
| | <u>DOORSTOPS</u> | | | |
| | <u>Approved</u> | | | |
| 7 | 38mm Diameter rubber door stop plugged | No | 9 | |
| | Carried to Collection | | | |
| | Section No. 8 | | | |
| | FD7 - ENVIRO LOO | | | |
| | Bill No. 7 | | | |
| | IRONMONGERY | | | |

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| Item No | Quantity | Rate | Amount |
|---|----------|------|--------|
| <u>SECTION NO.8</u> | | | |
| <u>BILL NO.8</u> | | | |
| <u>METALWORK</u> | | | |
| <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| <u>PRESSED STEEL DOOR FRAMES</u> | | | |
| <u>1,2mm Single rebated frames suitable for half brick walls</u> | | | |
| 1 | No | 7 | |
| Frame for door 813 x 2032mm high | | | |
| <u>1,6mm Double rebated frames suitable for one brickwalls</u> | | | |
| 2 | No | 1 | |
| Frame for door 813 x 2032mm high | | | |
| <u>PRESSED STEEL COMBINATION DOORS AND FRAMES</u> | | | |
| <u>"Nty" doors</u> | | | |
| 3 | No | 1 | |
| "Code 914" door frame size 914 x 2032mm high fitted with three (3) parliament hinges, complete with single security gate size 914 x 2032mm high overall formed of 25 x 25 x 2mm tubular section frame mitred and welded at angles and two 25 x 25 x 2mm tubular section horizontal middle rails, gate filled in with 12 x 12 x 12mm square section vertical rails at 100mm centres and fitted with locking bolt for padlock, frame formed of 25 x 38 x 2mm tubular section stiles and top rail mitred and welded at angles and fitted with three hinges welded to gate and frame, frame factory welded at maximum 250mm centres to door frame | | | |
| <u>STEEL WINDOWS, DOORS, ETC</u> | | | |
| Carried to Collection | | | R |
| Section No. 8 FD7 - ENVIRO LOO Bill No. 8 METALWORK | | | |

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| Section No. 8 FD7 - ENVIRO LOO Bill No. 8 METALWORK <u>COLLECTION</u> | | | |
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| Item No | | Quantity | Rate | Amount |
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| | <u>SECTION NO.8</u> | | | |
| | <u>BILL NO. 9</u> | | | |
| | <u>PLASTERING</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>CEMENT SCREEDS TO CONCRETE</u> | | | |
| | <u>Screeds to steel trowelled, on concrete:</u> | | | |
| 1 | 30mm thick on floors | m2 | 38 | |
| | <u>INTERNAL PLASTER</u> | | | |
| | <u>Cement plaster on brickwork or blockwork</u> | | | |
| 2 | On pits walls | m2 | 60 | |
| | <u>FLOOR AND WALLS SEALERS</u> | | | |
| | <u>Minimum two coats approved epoxy coat:</u> | | | |
| 3 | On screed | m2 | 38 | |
| 4 | On internal textured plaster walls and floors in pit | m2 | 73 | |
| | Carried Forward to Summary of Section No. 8 | | R | |
| | Section No. 8 | | | |
| | FD7 - ENVIRO LOO | | | |
| | Bill No. 9 | | | |
| | IN SITU FINISHES | | | |

| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <p><u>SECTION NO.8</u></p> <p><u>BILL NO. 10</u></p> <p><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>"Polycop" polypropylene pipes:</u></p> <p>Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated</p> <p>Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions</p> <p>All pipe diameters are nominal external</p> <p><u>"Polylink" polypropylene pipes:</u></p> <p>Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints</p> <p>Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured</p> <p>Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers</p> <p>Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers</p> | | | |
| | Carried to Collection | | R | |
| | <p>Section No. 8</p> <p>FD7 - ENVIRO LOO</p> <p>Bill No. 10</p> <p>PLUMBING AND DRAINAGE</p> | | | |

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

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

All pipe diameters are nominal external

Concrete pipes:

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

Vitrified clay pipes:

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

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

uPVC pipes and fittings:

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

uPVC pressure pipes and fittings:

Pipes for water supply shall be of the class stated

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

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

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Section No. 8
FD7 - ENVIRO LOO
Bill No. 10
PLUMBING AND DRAINAGE

Copper pipes:

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

Fixing of pipes

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

Lead pipes and fittings

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

Reducing fittings

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

Wire gratings

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

Septic tanks

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

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PLUMBING AND DRAINAGE

Exposed concrete surfaces

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

Excavations

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

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

Laying, backfilling, bedding, etc. of pipes

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

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

Flush pans

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

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

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

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| <p><u>Waste unions</u></p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p><u>Steel sectional water tanks</u></p> <p>Tanks shall comply with SABS CKS 114</p> <p><u>"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.</u></p> <p>Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described</p> <p>Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc</p> <p><u>SOIL DRAINAGE</u></p> <p><u>uPVC pipes</u></p> | | | | | | | |
| 1 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 6 | | | | |
| <u>Extra over uPVC pipes for fittings</u> | | | | | | | |
| 2 | 110mm Bend | No | 2 | | | | |
| 3 | 110mm Junction | No | 2 | | | | |
| 4 | 110 x 50mm Reducing junction | No | 2 | | | | |
| 5 | 110mm Double junction | No | 2 | | | | |
| <u>Pre-cast concrete gulleys</u> | | | | | | | |
| 6 | 110mm Dished gulley not exceeding 1m deep with 150mm steel grate and standard concrete gulley surround | No | 1 | | | | |
| Carried to Collection | | | | | | R | |
| Section No. 8 FD7 - ENVIRO LOO Bill No. 10 PLUMBING AND DRAINAGE | | | | | | | |

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|----|--|----|------|---|--|
| | <u>Sundries</u> | | | | |
| 7 | Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock | m3 | 4 | | |
| 8 | 100mm Cast iron "ABC" cleaning eye | No | 1 | | |
| 9 | Testing drainage pipe system | | Item | | |
| | <u>SANITARY FITTINGS</u> | | | | |
| | <u>"Vaal"</u> | | | | |
| 10 | 510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with two tapholes supported on and incl. two bolts (code 84467Z0) | No | 1 | | |
| | <u>WASTE UNIONS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 11 | 38mm "Cobra 316" unslotted waste and plug with chain | No | 1 | | |
| | <u>TRAPS ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 12 | "Cobra Ref. 365/40" CP bottle trap | No | 1 | | |
| | <u>TAPS, VALVES, ETC</u> | | | | |
| | <u>"Cobra Watertech"</u> | | | | |
| 13 | 15mm CP connectors | No | 2 | | |
| 14 | 25mm 1001/125RB fullway gate valve | No | 2 | | |
| 15 | Ref. 232-10 Angle regulating valve with connection pipes etc. | No | 2 | | |
| 16 | "Cobra Ref. 232/350" Angle regulating valve | No | 1 | | |
| | Carried to Collection | | | R | |
| | Section No. 8 | | | | |
| | FD7 - ENVIRO LOO | | | | |
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| | PLUMBING AND DRAINAGE | | | | |

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|----|---|----|------|---|--|
| 17 | COB-503-21B/N Elbow action. With 1/4 turn ceramic disc headpart, flanged backnut and blue indice for cold water application. 1/2BSP male iron connection end. | No | 1 | | |
| | <u>SANITARY PLUMBING</u> | | | | |
| | <u>uPVC pipes</u> | | | | |
| 18 | 110mm Pipes laid in and including trenches not exceeding 1m deep | m | 10 | | |
| | <u>Extra over uPVC pipes for fittings</u> | | | | |
| 19 | 110mm Junction | No | 2 | | |
| 20 | 110mm Reducing junction | No | 2 | | |
| 21 | 110mm Double junction | No | 2 | | |
| 22 | 110mm "GI Two-way" vent valve | No | 2 | | |
| | <u>Sundries</u> | | | | |
| 23 | Testing waste pipe system | | Item | | |
| | <u>WATER SUPPLIES</u> | | | | |
| | <u>Class 0 copper pipes</u> | | | | |
| 24 | 15mm Pipes | m | 30 | | |
| | <u>Extra over class 0 copper pipes for capillary fittings</u> | | | | |
| 25 | 15mm Fittings | No | 30 | | |
| | <u>ENVIRO-LOO TOILET SYSTEMS</u> | | | | |
| 26 | Supply and installation of complete Enviroo loo System 1040 industrial STD CER/ABS-1 (CODE FG-1040 STDCA/A) | No | 8 | | |
| 27 | Supply and install pre-cast double concrete wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim" | No | 4 | | |
| | Carried to Collection | | | R | |
| | Section No. 8 | | | | |
| | FD7 - ENVIRO LOO | | | | |
| | Bill No. 10 | | | | |
| | PLUMBING AND DRAINAGE | | | | |

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|---|---|----|------|--|----------|
| <u>SUPERVISION OF INSTALLATION OF "ENVIRO LOO"</u> <u>The following nominated sub - contractor amounts are for work to be carried out by nominated sub-contractors:Supervision of installation of "enviro loo":</u> | | | | | |
| 28 | Two site visits to be made by the "Enviro loo" suppliers to assist/support the contractor in the installation of the "enviro loo" and a final inspection to be ascertain the enviro loo has been installed corretly at which time a Certificate of compliance should be issued between the Department of Public Works Limpopo and Enviro Loo Options Limpopo. (CONTRACTOR SHOULD NOT PRICE FOR THIS ITEM | | Item | | 2 000,00 |
| 29 | Profit and attendance for above | | Item | | |
| <u>TAPS, VALVES, ETC</u> | | | | | |
| 30 | 19mm Chromium plated push-buton taps to wash troughs | No | 4 | | |
| <u>Sundires</u> | | | | | |
| 31 | Stainless-steel SHE-BIN protection cage plugged to walls | No | 8 | | |
| Carried to Collection | | | | | R |
| Section No. 8 FD7 - ENVIRO LOO Bill No. 10 PLUMBING AND DRAINAGE | | | | | |

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PLUMBING AND DRAINAGE

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PLUMBING AND DRAINAGE

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| | <u>SECTION NO.8</u> | | | |
| | <u>BILL NO. 12</u> | | | |
| | <u>PAINTWORK</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>ON FIBRE-CEMENT</u> | | | |
| | <u>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</u> | | | |
| 1 | On fascias and barge boards | m2 | 6 | |
| | <u>ON WOOD</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 2 | On doors (Internal) | m2 | 21 | |
| 3 | On doors (External) | m2 | 7 | |
| | <u>ON METAL</u> | | | |
| | <u>Undercoat and minimum 2 coat gloss enamel</u> | | | |
| 4 | On door frames | m2 | 6 | |
| 5 | On gates (Measured over the full flat area of both sides) | m2 | 7 | |
| | <u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u> | | | |
| 6 | On windows with burglar bars | m2 | 5 | |
| | Carried Forward to Summary of Section No. 8 | | | |
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| | Bill No. 12 | | | |
| | PAINTWORK | | | |

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| | <u>SECTION SUMMARY - FD7 - ENVIRO LOO</u> | | | | | |
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| | 2 | CONCRETE,FORMWORK AND REINFORCEMENT | | | | 200 |
| | 3 | MASONRY | | | | 204 |
| | 4 | WATERPROOFING | | | | 205 |
| | 5 | ROOF COVERINGS | | | | 208 |
| | 6 | CARPENTRY AND JOINERY | | | | 211 |
| | 7 | IRONMONGERY | | | | 214 |
| | 8 | METALWORK | | | | 217 |
| | 9 | IN SITU FINISHES | | | | 218 |
| | 10 | PLUMBING AND DRAINAGE | | | | 227 |
| | 11 | GLAZING | | | | 228 |
| 12 | PAINTWORK | 229 | | | | |
| 13 | CONCRETE APRONS | 230 | | | | |
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|---|--|----|---|--|---|
| | <u>Extra over galvanised medium steel pipes with screwed and socketed joints for steel fittings</u> | | | | |
| 10 | 50mm Fittings | No | 2 | | |
| 11 | 50mm Bush | No | 2 | | |
| 12 | 50mm Elbow | No | 2 | | |
| | <u>Galvanised medium normalized mild steel piping</u> | | | | |
| 13 | 25mm Standpipes | m | 1 | | |
| | <u>Extra over galvanised piping for galvanized mild steel fittings</u> | | | | |
| 14 | 25mm Fittings | No | 2 | | |
| | <u>Valve boxes</u> | | | | |
| 15 | 600 x 600mm Stopcock box complete as per detail drawing "Valve chamber" including 400 x 400 cast iron cover and frame depth not exceeding 750mm internally | No | 1 | | |
| | <u>Cover, etc</u> | | | | |
| 16 | 300 x 300 x 50mm Precast concrete pipeline marker Slab set in Ground | No | 1 | | |
| 17 | Cutting into existing water pipe | No | 1 | | |
| Carried to Collection | | | | | R |
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EXTERNAL WORKS

Bill No. 1

WATER SUPPLIES

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EXTERNAL WORKS

Bill No. 1

WATER SUPPLIES

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| | <u>SECTION NO.9</u> | | | |
| | <u>BILL NO. 2</u> | | | |
| | <u>ELEVATED WATER TANKS</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>EXCAVATIONS</u> | | | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 1 | Holes | m3 | 3 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 2 | Soft rock | m3 | 0,3 | |
| 3 | Hard rock | m3 | 0,1 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 4 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 2 | |
| | <u>Risk of collapse of excavations</u> | | | |
| 5 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 11 | |
| | <u>Keeping excavations free of water.</u> | | | |
| 6 | Keeping excavations free of water other than subterranean water | Item | | |
| | Carried to Collection | | R | |
| | Section No. 9 | | | |
| | EXTERNAL WORKS | | | |
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| | WATER TANKS | | | |

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|----|---|----|----|---|--|
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | | |
| 7 | Backfilling to trenches, holes, etc. <u>15Mpa/19mm Concrete</u> | m3 | 1 | | |
| 8 | Blinding <u>25Mpa/19mm Concrete</u> | m3 | 1 | | |
| 9 | Bases | m3 | 2 | | |
| | <u>TEST CUBES</u> | | | | |
| 10 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. <u>Finishing top surfaces of concrete smooth with a wood float</u> | No | 2 | | |
| 11 | On top of bases <u>"Jojo" or equal approved SANS PVC water tanks</u> | m2 | 6 | | |
| 12 | 10 000 Litre plastic water tank fitted onto and secured to tank platforms <u>Galvanized medium normalized mild steel piping</u> | No | 1 | | |
| 13 | 25mm Pipes | m | 18 | | |
| 14 | 50mm Pipes <u>Extra over galvanised mild steel water supply pipes for fittings</u> | m | 43 | | |
| 15 | 25mm Fittings | No | 4 | | |
| | Carried to Collection | | | R | |
| | Section No. 9 EXTERNAL WORKS Bill No. 2 WATER TANKS | | | | |

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|----|---|----|------|---|--|
| 16 | 50mm Elbows | No | 4 | | |
| 17 | 50mm Union | No | 8 | | |
| 18 | 50mm Reducing bush | No | 1 | | |
| | <u>"Cobra Watertech" or other equal approved</u> | | | | |
| 19 | 15mm "Cobra Ref. 108LK" brass hose biptap. | No | 1 | | |
| 20 | 50mm Fullway gate valve | No | 1 | | |
| | <u>TESTING</u> | | | | |
| | <u>Testing of water tanks</u> | | | | |
| 21 | Testing for tank | | Item | | |
| | <u>The following in structural steel tank stands</u> | | | | |
| | <u>Welded steel columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete</u> | | | | |
| 22 | 40 x 40 x 3mm Hot rolled angle section bracing | kg | 42 | | |
| 23 | 40 x 40 x 6mm Hot rolled angle section horizontal struts | kg | 154 | | |
| 24 | 80 x 80 x 6mm Hot rolled angle section columns, base plates and pipe clamps | kg | 404 | | |
| 25 | 125 x 75 x 10mm Hot rolled angle section floor beams | kg | 182 | | |
| 26 | 125 x 75 x 20 x 2.5mm Cold rolled lipped channel floor joists | kg | 252 | | |
| 27 | 30 x 6mm Cold rolled flat section bracing | kg | 217 | | |
| 28 | High strength friction grip bolts | kg | 22 | | |
| | Carried to Collection | | | R | |
| | Section No. 9 | | | | |
| | EXTERNAL WORKS | | | | |
| | Bill No. 2 | | | | |
| | WATER TANKS | | | | |

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|---|---|----|-----|---|--|
| 29 | 10mm Diameter U-shaped holding down bolt 250mm girth fixed to columns | No | 33 | | |
| 30 | 12mm Diameter L-shaped threaded anchor bolt 350mm girth embedded in top of concrete | No | 11 | | |
| <u>PAINTWORK ETC TO NEW WORK</u> | | | | | |
| <u>ON METAL</u> | | | | | |
| <u>Undercoat and minimum 2 coat gloss enamel</u> | | | | | |
| 31 | Paint to structural steel | m | 210 | | |
| <u>STEEL TANKS, ETC</u> | | | | | |
| <u>"Abeco Tank cc" or equal approved SANS steel water tank</u> | | | | | |
| 32 | Supply and install 4.88m long x 4.88m wide X 2.44m high elevated steel tank on a 12m high stand | No | 1 | | |
| | | | | R | |
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| <div style="display: flex; justify-content: space-between;"> <div> Section No. 9 EXTERNAL WORKS Bill No. 2 WATER TANKS </div> <div> Carried to Collection </div> </div> | | | | | |

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WATER TANKS

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| | <u>Soil insecticide</u> | | | | |
| 8 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 320 | | |
| | <u>Compaction of surfaces</u> | | | | |
| 9 | Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 320 | | |
| | <u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u> | | | | |
| 10 | Under floors, steps, paving, etc | m3 | 48 | | |
| | <u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density</u> | | | | |
| 11 | Imported natural gravel material (minimum G5 material to TRH14) supplied by the contractor and brought onto site from commercial sources in filling under paving, etc compacted in layers not exceeding 150mm thick to 90% modified AASHTO density | m3 | 48 | | |
| 12 | 50mm Thick clean, dry, riversand layer treated with an approved weed killer at the rate of 50 grams per square metre, spread and levelled to receive paving blocks | m3 | 6 | | |
| | <u>PAVING</u> | | | | |
| | <u>Paving of 200 x 100 x 60mm thick precast concrete paving blocks with butt joints on 20mm thick river sand bed with sand swept into joints including preparation of ground or filling</u> | | | | |
| 13 | 60mm Interlocking concrete paving blocks type SA Herring Bone in accordance with SABS Specification 1058 and laid to falls on sand layer(measured elsewhere) with joints filled with sand and vibrated, including all straight cutting | m2 | 320 | | |
| | Carried to Collection | | | R | |
| | Section No. 9 EXTERNAL WORKS Bill No. 3 WALKWAYS | | | | |

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|--|--|--|------------------------------|----------|
| | <p><u>Unmountable kerbs</u></p> <p>14 Unmountable kerbing to SABS 927 in 1m lengths with 10mm wide butt joints filled in with (1:3) cement/sand mortar and pointed with grooved half round joints and 10mm wide open butt joints at 3m centres including 15MPa/19mm mass concrete bedding size 30mm thick x 400mm wide and 20MPa/19mm mass concrete hunching size 112.5mm long x 112.5mm high x 85mm thick at joints and backfilling to back of kerbs, topsoiled and levelled to adjacent surfaces</p> <p>m</p> <p>370</p> | | | |
| | <p>Section No. 9 EXTERNAL WORKS Bill No. 3 WALKWAYS</p> | | <p>Carried to Collection</p> | <p>R</p> |

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.9</u> | | | |
| | <u>BILL NO. 4</u> | | | |
| | <u>SEPTIC TANKS, ETC.</u> | | | |
| | <u>SITE CLEARANCE ETC</u> | | | |
| | <u>Site clearance</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc | m2 | 42 | |
| 2 | Stripping average 100mm thick layer of top soil and stockpiling on site | m2 | 42 | |
| | <u>EXCAVATION, FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 3 | Holes | m3 | 22 | |
| | <u>Excavation in earth exceeding 2m and not exceeding 4m deep</u> | | | |
| 4 | Holes | m3 | 1 | |
| | <u>Extra over all excavations for carting away</u> | | | |
| 5 | Extra over all excavations for carting away surplus material from excavations and/or stockpile on site to a dumping site to be located by the Contractor | m3 | 22 | |
| | <u>Risk of collapse of excavations</u> | | | |
| 6 | Sides of trench and hole excavations not exceeding 1,5m deep | m2 | 22 | |
| 7 | Sides of trench and hole excavations exceeding 1,5m deep not exceeding 3m | m2 | 8 | |
| | Carried to Collection | | | |
| | Section No. 9 | | | |
| | EXTERNAL WORKS | | | |
| | Bill No. 4 | | | |
| | SEPTIC TANK | | | |

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|----|---|----|------|---|--|
| | <u>Keeping excavations free of water</u> | | | | |
| 8 | Keeping excavations free of all water other than subterranean water | | Item | | |
| | <u>REINFORCED CONCRETE</u> | | | | |
| | <u>25MPa/19mm concrete</u> | | | | |
| 9 | Surface beds | m3 | 1 | | |
| 10 | Slab over septic tank | m3 | 1 | | |
| | <u>Permanent formwork to soffits</u> | | | | |
| 11 | Slab over septic tank | m2 | 11 | | |
| | <u>REINFORCEMENT</u> | | | | |
| | <u>High steel reinforcement to structural concrete work</u> | | | | |
| 12 | Type 395 fabric reinforcement in concrete slabs etc | m2 | 11 | | |
| | <u>MASONRY</u> | | | | |
| | <u>Brickwork of NFP bricks in class II mortar</u> | | | | |
| 13 | One brick walls | m2 | 30 | | |
| 14 | Half brick walls | m2 | 2 | | |
| | <u>Brickwork reinforcement</u> | | | | |
| 15 | 150mm Wide reinforcement built in horizontally | m | 117 | | |
| | <u>BRICKWORK SUNDRIES</u> | | | | |
| 16 | Leave or form 450 x 600mm high opening through concrete slab | No | 2 | | |
| 17 | Leave or form opening through one brickwall for pipe exceeding 100mm and not exceeding 200mm diameter | No | 1 | | |
| | Carried to Collection | | | R | |
| | Section No. 9 EXTERNAL WORKS Bill No. 4 SEPTIC TANK | | | | |

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|--|---|----|----|---|--|
| 18 | Leave or form opening through one brickwall for pipe exceeding 50mm and not exceeding 100mm diameter | No | 2 | | |
| 19 | Leave or form opening through half brickwall for pipe exceeding 50mm and not exceeding 100mm diameter | No | 2 | | |
| | <u>PLASTERING</u> | | | | |
| | <u>Watertight cement plaster on brickwork</u> | | | | |
| 20 | On walls | m2 | 31 | | |
| | <u>FLOOR AND WALLS SEALERS</u> | | | | |
| | <u>Minimum two coats approved epoxy coat:</u> | | | | |
| 21 | On internal textured plaster walls and floors in pit | m2 | 41 | | |
| | <u>PLUMBING AND DRAINAGE</u> | | | | |
| | <u>uPVC pipes</u> | | | | |
| 22 | 110mm Pipes | m | 6 | | |
| | <u>Extra over uPVC pipes for fittings</u> | | | | |
| 23 | 110mm Tee | No | 1 | | |
| 24 | 50mm Tee | No | 1 | | |
| | <u>Cover, etc</u> | | | | |
| 25 | 450 x 600mm Type 2A cast iron single seal manhole cover and frame | No | 2 | | |
| 26 | Lifting key for manhole cover | No | 2 | | |
| | <u>FRENCH DRAINS TO GREYWATER SYSTEMS</u> | | | | |
| | <u>The following in one french drain:</u> | | | | |
| | <u>Excavation in earth or compacted platforms exceeding 2m and not exceeding 4m deep</u> | | | | |
| 27 | Holes | m3 | 2 | | |
| Carried to Collection | | | | R | |
| Section No. 9 EXTERNAL WORKS Bill No. 4 SEPTIC TANK | | | | | |

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Section No. 9

EXTERNAL WORKS

Bill No. 4

SEPTIC TANK

COLLECTION

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EXTERNAL WORKS

Bill No. 4

SEPTIC TANK

| Item No | | Quantity | Rate | Amount |
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| | <u>SECTION NO.9</u> | | | |
| | <u>BILL NO. 5</u> | | | |
| | <u>STORMWATER CONTROL</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>Earthworks</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc | m2 | 370 | |
| 2 | Excavate in earth below natural, reduced or made up ground level , not exceeding 2m deep, to reduced levels under aprons, paving, etc | m3 | 111 | |
| 3 | Extra over surplus material from excavations and/stock piles on site to the dumping site to be located by the Contractor | m3 | 56 | |
| 4 | Extra over trench or hole for excavations in soft rock | m3 | 11 | |
| 5 | Extra over trench or hole for excavations in hard rock | m3 | 6 | |
| 6 | Re-compaction of disturbed formation levels, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 370 | |
| 7 | Treat soil under concrete rain water channels, etc. with an approved insecticide solution at the rate not less than 2 litre per 1m2 | m2 | 370 | |
| | Carried to Collection | | R | |
| | Section No. 9 | | | |
| | EXTERNAL WORKS | | | |
| | Bill No. 5 | | | |
| | STORMWATER CONTROL | | | |

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|---|---|---|-----|--|
| | <u>Precast Concrete</u> | | | |
| 8 | D11 Channel Large shallow open-ended channel section. Length: 500mm Mass: 97kg per section Prod. no.: P2-0609 | m | 370 | |
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EXTERNAL WORKS
Bill No. 5
STORMWATER CONTROL

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|--------|
| | <u>SECTION NO.9</u> | | | |
| | <u>BILL NO 6</u> | | | |
| | <u>FENCING</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 155 | |
| | <u>EXCAVATIONS</u> | | | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 2 | Holes | m3 | 5 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 3 | Soft rock | m3 | 1 | |
| 4 | Hard rock | m3 | 0,3 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 5 | Surplus material from excavations and/or stock piles on site to a dumping site to be alocated by the Contractor | m3 | 5 | |
| | <u>Risk of collapse of excavations</u> | | | |
| 6 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 104 | |
| | Carried to Collection | | | |
| | Section No. 9 | | | |
| | EXTERNAL WORKS | | | |
| | Bill No. 6 | | | |
| | FENCING | | | |

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|----|--|----|------|---|--|
| | <u>Keeping excavations free of water.</u> | | | | |
| 7 | Keeping excavations free of water other than subterranean water | | Item | | |
| | <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | | |
| | <u>UNREINFORCED CONCRETE, ETC</u> | | | | |
| | <u>25Mpa/19mm Concrete</u> | | | | |
| 8 | Bases | m3 | 5 | | |
| | <u>FENCING</u> | | | | |
| | <u>Steel palisade as per attached drawings complete,joined to brick columns and brickwalls, the fence painted on both sides (colour to architects)</u> | | | | |
| 9 | Galvanised Steel palisade fence 1800mm high with pales formed of 30 x 30 x 2.0mm angle iron paling 1.8m high with devil fork effect on top and bottom with the dove tail fixed to 2,4m high posts size 76 x 76 x 2mm square tubing with closing pyramid caps on top posts at 3m centres min, with 40 x 40 x 2mm angle iron bearers placed 300mm from top paling and 300mm from bottom paling welded flash with the back of the posts as per manufacturers instructions fixed in position as indicated on the drawings | m | 155 | | |
| | <u>GATES, ETC.</u> | | | | |
| 10 | Sliding galvanised palisade gate of 75 x 75 mm mild steel framing size 5000 x 1800mm high vertically with spear head finish, each leaf with formed with bottom and top horizontal bearers of 60 x 30 x 2-2.5mm lipped and slotted channels fixed in position aligned with the brick plinth with 40 x 40 x 2.5-3mm hot rolled angles used for palisade paling slotted and welded at 100mm centres into the horizontal members with and including a mild steel locking system consisting of mild steel plate and mild steel bolt lock including padlock with keys (LI) | No | 2 | | |
| | Carried to Collection | | | R | |
| | Section No. 9 EXTERNAL WORKS Bill No. 6 FENCING | | | | |

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|--|---|----|-----|--|---|
| 11 | <p>Pedestrain galvanised palisade gate of 60 x 60mm mild steel framing size 1500 x 1800mm high vertically with spear head finish, each leaf with formed with bottom and top horizontal bearers of 60 x 30 x 2-2.5mm C-channel and slotted channels fixed in position welded to 35 x 35mm galvanised steel post and with 40 x 40 x 2.5-3mm hot rolled angles used for palisade palling slotted and welded at 100mm centres into the horizontal members with and including a mild steel locking system consisting of mild steel plate and mild steel bolt lock including padlock with keys and gate handles fixed to rectangular 1mm plate with swivel castors on opening sections and barrel bolts into paving</p> <p><u>PAINTWORK ETC TO NEW WORK</u></p> <p><u>ON METAL</u></p> <p><u>Plascon Super Universal Enamel to exterior new galvanised(NW 620).Surface to be clean and dry. Apply Plascon Galvanised Iron Cleaner (GIC 1) to all bare galvanised areas. Rinse off with tap water using bristle brush or Scotch Brite pads to remove all surface contaminants, until surface is water-free. Prime with one coat of Galvanised Iron Primer (GIP 1) and finish with two coats of Universal Enamel (NY 1/G)</u></p> | No | 2 | | |
| 12 | <p>On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area) (LI)</p> | m2 | 558 | | |
| <p style="text-align: right;">Carried to Collection</p> | | | | | |
| <p>Section No. 9 EXTERNAL WORKS Bill No. 6 FENCING</p> | | | | | R |

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EXTERNAL WORKS

Bill No. 6

FENCING

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EXTERNAL WORKS

Bill No. 6

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| | <u>SECTION NO.9</u> | | | |
| | <u>BILL NO 7</u> | | | |
| | <u>RAINWATER HARVEST TANKS,ETC</u> | | | |
| | <u>SUPPLEMENTARY PREAMBLES</u> | | | |
| | For preambles see "Specifications of materials and methods to be used - PW 371" | | | |
| | <u>EARTHWORKS</u> | | | |
| | <u>SITE CLEARANCE</u> | | | |
| 1 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc. | m2 | 101 | |
| | <u>EXCAVATIONS</u> | | | |
| | <u>EXCAVATION,FILLING, ETC</u> | | | |
| | <u>Excavation in earth not exceeding 2m deep</u> | | | |
| 2 | Trenches | m3 | 12 | |
| | <u>Extra over trench and hole excavations in earth for excavation:</u> | | | |
| 3 | Soft rock | m3 | 0,4 | |
| 4 | Hard rock | m3 | 0,2 | |
| | <u>Extra over all excavations for carting away:</u> | | | |
| 5 | Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor | m3 | 4 | |
| | Carried to Collection | | | |
| | Section No. 9 | | | |
| | EXTERNAL WORKS | | | |
| | Bill No. 7 | | | |
| | RAINWATER HARVEST TANKS | | | |

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|----|--|----|------|---|--|
| | <u>Risk of collapse of excavations</u> | | | | |
| 6 | Sides of trench and hole excavation not exceeding 1,5m deep. | m2 | 35 | | |
| | <u>Keeping excavations free of water.</u> | | | | |
| 7 | Keeping excavations free of water other than subterranean water | | Item | | |
| | <u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u> | | | | |
| 8 | Under floors, steps, pavings, etc. | m3 | 3 | | |
| 9 | Backfilling to trenches, holes, etc. | m3 | 6 | | |
| | <u>Earth filling supplied by the contractor compacted to 93% Mod AASHTO density</u> | | | | |
| 10 | Under floors, steps, paving etc. | m3 | 3 | | |
| | <u>Compaction of surfaces</u> | | | | |
| 11 | Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density | m2 | 11 | | |
| | <u>Prescribed density tests on filling</u> | | | | |
| 12 | Modified AASHTO Density tests | No | 5 | | |
| | <u>SOIL POISONING</u> | | | | |
| | <u>Soil insecticide</u> | | | | |
| 13 | Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming. | m2 | 11 | | |
| 14 | To bottoms and sides of trenches, etc. | m2 | 54 | | |
| | Carried to Collection | | | R | |
| | Section No. 9 EXTERNAL WORKS Bill No. 7 RAINWATER HARVEST TANKS | | | | |

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|--|---|----|----|---|
| <u>CONCRETE, FORMWORK AND REINFORCEMENT</u> | | | | |
| <u>UNREINFORCED CONCRETE, ETC</u> | | | | |
| <u>25Mpa/19mm Concrete</u> | | | | |
| 15 | Strip footings | m3 | 4 | |
| <u>REINFORCED CONCRETE, ETC</u> | | | | |
| <u>25Mpa/19mm Concrete</u> | | | | |
| 16 | Slabs | m3 | 1 | |
| <u>TEST CUBES</u> | | | | |
| 17 | Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith. | No | 5 | |
| <u>Finishing top surfaces of concrete smooth with a steel trowel</u> | | | | |
| 18 | Surface beds, slabs, etc. | m2 | 11 | |
| <u>REINFORCEMENT</u> | | | | |
| <u>Mesh Reinforcement (measure nett)</u> | | | | |
| 19 | Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds | m2 | 11 | |
| <u>WATERPROOFING</u> | | | | |
| <u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u> | | | | |
| 20 | Under surface beds | m2 | 11 | |
| <u>BRICKWORK</u> | | | | |
| Carried to Collection | | | | R |
| Section No. 9 EXTERNAL WORKS Bill No. 7 RAINWATER HARVEST TANKS | | | | |

SUPPLEMENTARY PREAMBLES

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

BRICKWORK

Sizes in descriptions

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

Hollow walls etc

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

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

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

Face bricks

Bricks shall be ordered timeously to obtain uniformity in size and colour

Pointing

Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc

SAMPLES

Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6

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RAINWATER HARVEST TANKS

| | | | | |
|---|--|----|------|---|
| <u>FOUNDATIONS</u> | | | | |
| <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u> | | | | |
| 21 | One brick walls | m2 | 15 | |
| <u>FACE BRICKWORK</u> | | | | |
| <u>Face bricks (purchase price of R 5000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u> | | | | |
| 22 | Extra over brickwork for face brickwork in foundation | m2 | 8 | |
| <u>BRICKWORK SUNDRIES</u> | | | | |
| <u>Brick reinforcement</u> | | | | |
| 23 | 150mm Wide reinforcement built in horizontally | m | 36 | |
| <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> | | | | |
| <u>"Jojo" or equal approved SANS PVC water tanks</u> | | | | |
| 24 | 2 500 Litre plastic water tank fitted onto and secured to tank platforms complete with all necessary plumbing fittings | No | 5 | |
| <u>TESTING</u> | | | | |
| <u>Testing of water tanks</u> | | | | |
| 25 | Testing for tank | | Item | |
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RAINWATER HARVEST TANKS

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| Item No | | Quantity | Rate | Amount |
|---------|--|----------|------|------------|
| | <u>SECTION NO.10</u> | | | |
| | <u>BILL NO.1</u> | | | |
| | <u>PROVISIONAL SUMS</u> | | | |
| | All the provisional sums cover supply of material and equipment and installation where applicable by firms of specialists. | | | |
| | Provisional sums are net and do not include builder's discount, but the Tenderer may allow under "Profit" items any profit he considers necessary. | | | |
| | The Tenderer is referred to Clause 87.1 and 87.2 in the "Preliminaries" section for the definition and adjustment of "General Attendance". | | | |
| | <u>N.B ALL PROVISIONAL WORKS ARE SUBJECT TO RE-MEASUREMENTS. THE PROVISIONAL WORK SHALL BE PAID AS PER THE WORK DONE</u> | | | |
| | <u>Ground Water Treatment Package Plant</u> | | | |
| 1 | Provide the amount of R260 000.00 (Two hundred and sixty thousand rands) for ground water treatment plant by Specialists | Item | | 260 000,00 |
| 2 | Profit | Item | | |
| 3 | Attendance | Item | | |
| | <u>Refurbish & Equipping of Existing Borehole</u> | | | |
| 4 | Provide the amount of R125 000.00 (One hundred and twenty five thousand rands) for equipping existing borehole by Specialists | Item | | 125 000,00 |
| 5 | Profit | Item | | |
| 6 | Attendance | Item | | |
| | Carried to Collection | | R | |
| | Section No. 10 PROVISIONAL SUMS Bill No. 1 Provisional sums | | | |

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|--|--|------|--|------------|--|
| | <u>Rental of Chemical Toilets</u> | | | | |
| 7 | Provide the amount of R50 000.00 (Fifty thousand rands) for rental of chemical toilets by Specialists | Item | | 50 000,00 | |
| 8 | Profit | Item | | | |
| 9 | Attendance | Item | | | |
| | <u>Concrete Palisade Fence</u> | | | | |
| 10 | Provide the amount of R450 000.00 (Four fifty thousand rands) for installation of concrete palisade by Specialists | Item | | 450 000,00 | |
| 11 | Profit | Item | | | |
| 12 | Attendance | Item | | | |
| Carried to Collection | | | | | |
| Section No. 10 PROVISIONAL SUMS Bill No. 1 Provisional sums | | | | R | |
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|--|---------------------------|---------|--------|
| 1 | PRELIMINARIES AND GENERAL | 29 | |
| 2 | DEMOLITIONS | 30 | |
| 3 | SM2 - WATERBORNE | 64 | |
| 4 | SFD3 - WATERBORNE | 101 | |
| 5 | GRD7 - WATERBORNE | 138 | |
| 6 | M8 - ENVIRO LOO | 167 | |
| 7 | F8 - ENVIRO LOO | 194 | |
| 8 | FD7 - ENVIRO LOO | 231 | |
| 9 | EXTERNAL WORKS | 262 | |
| 10 | PROVISIONAL SUMS | 265 | |
| SUB TOTAL (A) | | | R |
| Provide 10% (TEN PERCENT) on Sub-total (A) as contingency to be deducted in whole or in part if not required | | Item | |
| SUB TOTAL (B) | | | R |
| Add VAlue Added Tax @ 15% | | | R |
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