

Item No	Quantity	Rate	Amount
<p><u>SECTION NO. 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>			
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<u>PREAMBLES FOR TRADES</u>			
<p>The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained</p> <p>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</p> <p>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</p>			
<u>GENERAL</u>			
<p>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</p>			
<u>SECTION A - PRINCIPAL BUILDING AGREEMENT</u>			
<u>Definitions (A1)</u>			
1	Definitions and interpretation (clause 1)		
	F:..... V:..... T:.....		
Item			
Carried Forward		R	
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Brought Forward		R
<u>Objective and Preparation (A2 to A14)</u>		
2	Offer acceptance and performance (clause 2) F:..... V:..... T:.....	Item
3	Documents (clause 3) F:..... V:..... T:.....	Item
4	Design responsibility (clause 4) F:..... V:..... T:.....	Item
5	Employer's agents (clause 5) F:..... V:..... T:.....	Item
<p>The principal agent shall:</p> <ul style="list-style-type: none"> - monitor and control progress and scheduling - monitor all contract conditions, and - coordinate the efforts of the employer's agents, the contractor and subcontractors <p>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</p>		
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	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	
6	Site representative (clause 6) F:..... V:..... T:.....	Item
7	Compliance with regulations (clause 7) F:..... V:..... T:.....	Item
8	Works risk (clause 8) F:..... V:..... T:.....	Item
9	Indemnities (clause 9) F:..... V:..... T:.....	Item
10	Works insurances (clause 10) F:..... V:..... T:.....	Item
11	Liability insurances (clause 11) F:..... V:..... T:.....	Item
12	Effecting insurance (clause 12) F:..... V:..... T:.....	Item
Carried Forward		R
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Brought Forward			R
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	
19	Assignment (clause 19) F:..... V:..... T:..... The contractor shall not cede his rights or delegate his obligations in terms of this agreement unless specifically called for by the employer	Item	
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	Brought Forward		R
20	Nominated subcontractors (clause 20) F:..... V:..... T:.....	Item	
21	Selected subcontractors (clause 21) F:..... V:..... T:..... Written proof is required from subcontract tenderers at tendering that they can meet the JBCC Selected Subcontract Agreement or other tender agreements and provide security in terms of the agreement. If the above is not provided the tender may not be accepted All amounts allowed under Provisional Amounts are intended to be awarded to Selected Subcontractors	Item	
22	Employer's Direct Contractors (clause 22) F:..... V:..... T:.....	Item	
23	Contractor's Domestic Sub-Contractors (Clause 23) F:..... V:..... T:.....	Item	
	<u>Completion (A24-A30)</u>		
24	Practical completion (clause 24) F:..... V:..... T:.....	Item	
25	Works completion (clause 25) F:..... V:..... T:.....	Item	
26	Final completion (clause 26) F:..... V:..... T:.....	Item	
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Brought Forward			R
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	
<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:.....	Item	
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	Brought Forward		R	
	Where prices are submitted by the contractor or nominated/selected subcontractors during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing			
33	Recovery of expense and loss (clause 33) F:..... V:..... T:.....	Item		
34	Final account and final payment (clause 34) F:..... V:..... T:.....	Item		
	The employer shall not pay any interest on amounts payable to the contractor for one hundred and forty two (142) days after the date of issue of the certificate of practical completion			
	The employer shall, however, pay interest to the contractor at the rate stipulated in clause 34.11 on any amounts payable to the contractor more than one hundred and forty two (142) days after the date of issue of the certificate of practical completion but only for such period as the settlement of the final account is delayed by the non-performance of the principal agent or the employer or his agents. In evaluating non-performance for purposes of this clause a reasonable time shall be allowed to the employer or his agents to respond to any matter brought to his/their attention and which may affect the settlement of the final account			
35	Payment to other parties (clause 35) F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
	<u>Cancellation (A36-A39)</u>			
36	Cancellation by employer - contractor's default (clause 36) F:..... V:..... T:.....	Item		
37	Cancellation by employer - loss and damage (clause 37) F:..... V:..... T:.....	Item		
38	Cancellation by contractor - employer's default (clause 38) F:..... V:..... T:.....	Item		
39	Cancellation - cessation of the works (clause 39) F:..... V:..... T:.....	Item		
	<u>Dispute (A40)</u>			
40	Dispute Settlement (clause 40) F:..... V:..... T:.....	Item		
	<u>Substitute Provisions (A41)</u>			
41	State clauses (Clause 41) F:..... V:..... T:.....	Item		
	Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder			
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	Brought Forward		R	
	<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>			
42	<p>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: THE MVULA TRUST</p> <p>42.1.2 Principal Agent: AES CONSULTING</p> <p><u>42.2 CONTRACT DETAILS</u></p> <p>42.2.1 Works Description: Construction of sanitation facilities</p> <p>42.2.2 Site Description: as per the information on the tender data</p> <p>42.2.3 Work or installations by direct contractors:</p> <p style="text-align: right;">N/A</p> <p>42.2.4 This agreement is for a government contract where there are specific options that are applicable to a State organ only</p> <p style="text-align: right;">Yes</p>	Item		
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<p style="text-align: center;">Brought Forward</p> <p>42.2.5 Date on which possession of the site is intended to be given:</p> <p style="padding-left: 40px;">As per the information provided in the Tender Data</p> <p>42.2.6 Period for the commencement of the works after the contractor takes possession of site:</p> <p style="text-align: center;">7 DAYS</p> <p>42.2.7 For the works as a whole. Intended date of practical completion and the penalty per calendar day</p> <p style="padding-left: 40px;">Intended Date of Practical Completion: <i>As per the information provided in the Tender Data</i></p> <p style="padding-left: 40px;">Penalty Amount: <i>The penalty per calendar day shall be 7.5 cents per R100 of the Tendered Amount (inclusive of value added tax)</i></p> <p>42.2.8 For the works in sections: Intended date of practical completion and the penalty per calendar day</p> <p style="text-align: center;">N/A</p> <p>42.2.9 The law applicable to this agreement shall be that of</p> <p style="text-align: center;"><i>South Africa (country)</i></p> <p style="text-align: center;">Carried Forward</p> <p>PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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Brought Forward	R
<u>42.3 INSURANCES</u>	
42.3.1 Contract works insurance to be effected by:	
<i>Contractor:</i>	
<i>For the Sum of R Contract Amount + 10.00 %</i>	
<i>With a deductible of - to be determined by the contractor</i>	
42.3.2 Supplementary insurance is required	
<i>No</i>	
42.3.3 Public liability insurance to be effected by:	
<i>Contractor:</i>	
<i>For the Sum of R 5 000 000-00</i>	
<i>With a deductible of - to be determined by the contractor</i>	
<u>42.4 DOCUMENTS</u>	
42.4.1 Waivers of contractors lien or right of continuing possession is required	
<i>Yes</i>	
42.4.2 Number of construction document copies to be supplied to the contractor free of charge:	
<i>3 Number of</i>	
42.4.3 Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with:	
<i>"Standard System of Measuring Builders' Work"</i>	
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	Brought Forward		R	
	<p>42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within</p> <p style="text-align: center;">5 working days</p> <p><i>The priced bills of quantities must be handed in with the tender</i></p>			
	<p>42.4.5 JBCC Engineering General Conditions are to be included in the contract documents:</p> <p style="text-align: right;"><i>No</i></p>			
	<p>42.4.6 The contract value is to be adjusted using escalation adjustment indices</p> <p style="text-align: right;"><i>No</i></p> <p>Where JBCC CPAP is to be used</p> <p style="text-align: right;"><i>Base Month N/A</i></p>			
	<p>42.4.7 Details of changes made to the provision of JBCC standard documentation:</p> <p>Part 1 - Contract Data completed by Employer</p>			
	<u>SECTION B: PRELIMINARIES</u>			
	<u>Definitions and interpretation (B1)</u>			
43	<p>Definition and interpretation (B1.1 - B1.4.6)</p> <p>F:..... V:..... T:.....</p>	Item		
	<u>Documents (B2)</u>			
44	<p>Checking of documents (B2.1)</p> <p>F:..... V:..... T:.....</p>	Item		
	Carried Forward		R	
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Brought Forward			R
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	
<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	
Carried Forward			R
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Brought Forward		R
Existing premises occupied (B3.4)		
F:..... V:..... T:.....		
Specific requirements:		
The contractor shall also comply with the additional requirements with regard to the Coronavirus pandemic in terms of all Covid-19 legislation, regulations and guidelines.		
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	
55 Protection of trees etc (B3.9)		
F:..... V:..... T:.....	Item	
56 Articles of value (B3.10)		
F:..... V:..... T:.....	Item	
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	Brought Forward		R	
	<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		
	<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		
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Brought Forward			R
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	
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	
Carried Forward			R
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	Brought Forward		R	
	<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		
	<u>Prime cost amounts (B8)</u>			
78	Responsibility for prime cost amounts (B8.1) F:..... V:..... T:.....	Item		
	Carried Forward		R	
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	Brought Forward		R	
	<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		
84	Payment certificate cash flow (B10.4) F:..... V:..... T:.....	Item		
	Carried Forward		R	
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Brought Forward			R
<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	
92	Vermin (B11.8) F:..... V:..... T:.....	Item	
Carried Forward			R
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	Brought Forward		R	
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: <div style="text-align: right;">No</div>			
	12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete <div style="text-align: right;">No</div>			
	12.1.3 Interest of agents (B2.4)			
	12.1.4 Defined works area (B3.1)			
	12.1.5 Geotechnical investigation (B3.2) <div style="text-align: right;">N/A</div>			
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<p style="text-align: center;">Brought Forward</p> <p>12.1.6 Existing premises occupied (B3.4)</p> <p>12.1.7 Previous work - dimensional accuracy (B3.4)</p> <p>12.1.8 Previous work - defects (B3.5)</p> <p>12.1.9 Services - known (B3.7)</p> <p>12.1.10 Protection of trees (B3.9)</p> <p style="padding-left: 40px;">All trees should be protected and only on instruction of the Principal Agent may any trees be removed</p> <p>12.1.11 Inspection of adjoining properties (B3.11)</p> <p>12.1.12 Enclosure of the works (B6.2)</p> <p>12.1.13 Offices (B6.4.3)</p> <p style="padding-left: 40px;">Specific requirements:</p> <p style="padding-left: 80px;">The contractor shall provide, maintain and remove, on completion of the works, an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.</p> <p>12.1.14 Main notice board (B6.5)</p> <p style="text-align: right; padding-right: 50px;">YES</p> <p style="text-align: center;">Carried Forward</p> <p>PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za</p>	<p style="text-align: center;">R</p> <hr/> <p style="text-align: center;">R</p>
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Brought Forward		R	
12.1.15 Subcontractors notice board (B6.6) A notice board is required <div style="text-align: right;">Yes</div>			
12.1.16 Water (B7.2) Alternative Selected: A			
12.1.17 Electricity (B7.3) Alternative selected: A			
12.1.18 Telecommunications (B7.4)			
12.1.19 Ablution facilities (B7.5) Alternative selected: A			
12.1.20 Protection of existing/sectionally occupied works (B11.2)			
12.1.21 Special attendance (B9.2) Subcontractor (1) details: N/A			
12.1.22 Protection of the works (B11.1) N/A			
12.1.23 Disturbance (B11.5) N/A			
12.1.24 Environmental Disturbance (B11.6) N/A			
<u>Post tender information (B12.2)</u>			
12.2.1 Payment of preliminaries Alternative selected: B			
12.2.2 Adjustment of preliminaries Alternative selected: A			
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	Brought Forward		R	
	12.2.3 Additional agreed preliminaries items N/A			
	<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
	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:.....	Item		
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	Brought Forward		R	
	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			
102	Contract instructions F:..... V:..... T:.....	Item		
	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			
103	Labour record F:..... V:..... T:.....	Item		
	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			
104	Plant record F:..... V:..... T:.....	Item		
	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			
105	Guarantees F:..... V:..... T:.....	Item		
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	Brought Forward		R	
	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			
106	Overtime F:..... V:..... T:..... 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	Item		
107	Co-operation of contractor for cost management F:..... V:..... T:.....	Item		
	Carried Forward		R	
	PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward		R	
	<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>			
108	<p>Occupational Health and Safety Specification</p> <p>F:..... V:..... T:.....</p> <p>The contractor shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)</p> <p>It is required of the contractor to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document.</p> <p>The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.</p>	Item		
	Carried Forward		R	
	<p>PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za</p>			

	Brought Forward		R	
	<p>Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause, as well as the clauses that follow hereafter and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced under these clauses and no additional claims in this regard shall be entertained.</p> <p>The contractor shall also comply with the additional requirements with regard to the Coronavirus pandemic in terms of all Covid-19 legislation, regulations and guidelines. It is explicitly pointed out that all requirements of the aforementioned are deemed to be priced under this clause and the specific related clauses hereafter and no additional claims in this regard shall be entertained.</p>			
109	Occupational Health and Safety Specification			
	F:..... V:..... T:.....	Item		
	Preparation of contractor's site specific health and safety plan, including compliance with Covid-19 legislation, regulations and guidelines			
110	Occupational Health and Safety Specification			
	F:..... V:..... T:.....	Item		
	Principal contractor's initial obligations in respect of the Health and Safety Act, Construction Regulations and Covid-19 regulations, etc			
111	Occupational Health and Safety Specification			
	F:..... V:..... T:.....	Item		
	Carried Forward		R	
	<p>PRELIMINARIES</p> <p>Ps & Gs</p> <p>AES CONSULTING CC</p> <p>admin@aesconsulting.co.za</p>			

Brought Forward			R
	Principal contractor's time related obligations in respect of the Health and Safety Act, Construction Regulations and Covid-19 regulations, etc		
112	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of reflective vests		
113	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of hard hats		
114	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of protective footwear		
115	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of earplugs		
116	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of dust masks		
Carried Forward			R
PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward		R
117	Provision of personal protective equipment (PPE) F:..... V:..... T:..... Provision of gloves	Item	
118	Provision of personal protective equipment (PPE) F:..... V:..... T:..... Provision of high visibility overalls to SARTSM Chapter 13 Level 3	Item	
119	Provision of personal protective equipment (PPE) F:..... V:..... T:..... Provision of SANS approved ear defenders	Item	
120	Provision of personal protective equipment (PPE) F:..... V:..... T:..... Provision of face masks (Covid -19)	Item	
121	Provision of personal protective equipment (PPE) F:..... V:..... T:..... Provision of face shields (Covid -19)	Item	
122	Provision of personal protective equipment (PPE) F:..... V:..... T:..... Provision of gloves (Covid -19)	Item	
	Carried Forward		R
	PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za		

	Brought Forward		R
123	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of hand sanitiser (min 70% alchohol), foot press stands and paper towels (Covid -19)		
124	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of covered refuse bins and refuse bags and waste (including hazardous) management (Covid -19)		
125	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of digital infrared non-contact body thermometer (Covid -19, minimum of two per site entrance)		
126	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of perspex screens for office staff (Covid -19, minimum size 600 x 500mm)		
127	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of signage, including Covid -19 related signage		
128	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Carried Forward		R
	PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za		

Brought Forward			R
	Provision of full time construction health and safety officer (SACPCMP Registered)		
129	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Medical certificates and medical surveillance including initial (baseline) medical examinations, periodic examinations, and exit examinations		
130	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Medical screenings, examinations, etc in terms of Covid-19 regulations		
131	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Induction training, including Covid-19 training		
132	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Provision of first aid boxes to GSR requirements		
133	Provision of personal protective equipment (PPE) F:..... V:..... T:.....	Item	
	Noise monitoring including establishment of noise zones (plant), audiograms (personnel), etc		
Carried Forward			R
PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward		R	
134	Provision of personal protective equipment (PPE) F:..... V:..... T:..... Submission of health and safety file	Item		
135	HIV/AIDS Awareness F:..... V:..... T:..... It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the bills of quantities / lump sum document. Provision for pricing of HIV/AIDS awareness is made under items C11.1 to C11.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained. The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.	Item		
	<u>SUMMARY OF CATEGORIES</u> Category : Fixed R..... Category : Value R..... Category : Time R.....			
	Carried to Final Summary		R	
	PRELIMINARIES Ps & Gs AES CONSULTING CC admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 2</u>			
	<u>BILL NO.1</u>			
	<u>ALTERATIONS</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>View site</u>			
	Before submitting his tender the contractor shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained.			
	<u>Explosives</u>			
	No explosives whatsoever may be used for demolition.			
	<u>General</u>			
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent.			
	Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.			
	Doors, fanlights, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and easing, oiling, adjusting and repairing			
	Carried Forward		R	
	ALTERATIONS DEMOLITIONS & RENOVATIONS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward				R
<p>ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately.</p> <p>Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc.</p> <p>Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc and making good floor and wall finishes to match existing.</p> <p>With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork.</p> <p>Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary.</p> <p>The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc).</p>				
<u>DEMOLITIONS AND ALTERATIONS</u>				
<u>DEMOLITIONS OF EXISTING TOILET STRUCTURES</u>				
1	Demolish existing pit toilet structures including hacking up and removing foundations and surface beds, doors, windows and door frames, ironmongery and plumbing fittings complete. All pits are to be filled with soil.	No	12	
2	Demolish existing ground slab (max strength and size, 25MPa and 10m2 respectively) with mesh reinforcement for pit toilets that have been abandoned. All pits are to be filled with soil.	No	1	
Carried to Final Summary				R
ALTERATIONS DEMOLITIONS & RENOVATIONS AES CONSULTING CC admin@aesconsulting.co.za				

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	102	
2	Stripping average 100mm thick layer of top soil and stockpiling on site.	m2	102	
	<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	3	
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	5	
	<u>Risk of collapse of excavations</u>			
7	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	25	
	Carried Forward			
	TYPE MD2 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za		R	

Brought Forward			R
	<u>Keeping excavations free of water.</u>		
8	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>		
9	Under floors, steps, pavings, etc.	m3	5
10	Backfilling to trenches, holes, etc.	m3	39
	<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	33
12	Compaction of ground surface to aprons, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	27
	<u>Earth filling supplied by the contractor under parking areas, roadways, etc</u>		
13	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 93% Mod AASHTO density	m3	11
	<u>Prescribed density tests on filling</u>		
14	Modified AASHTO Density tests	No	4
Carried Forward			R
TYPE MD2 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

[illegible]

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	6	
2	Aprons cast in panels	m3	3	
3	Ramp	m3	1	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	25	
5	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	25	
<u>REINFORCED CONCRETE, ETC</u>				
<u>25Mpa/19mm Concrete</u>				
6	Slabs	m3	3	
Carried Forward				R
TYPE MD2 CONCRETE, FORMWORK AND REINFORCEMENT AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
7	Aprons and pavings to falls	m2	25
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
8	Surface beds, slabs, etc.	m2	33
<u>TEST CUBES</u>			
9	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4
<u>FORMWORK</u>			
<u>Rough formwork to sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	28
<u>REINFORCEMENT</u>			
<u>Mesh Reinforcement (measure nett)</u>			
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	33
Carried Forward to Summary of Section No. 3			R
TYPE MD2			
CONCRETE, FORMWORK AND REINFORCEMENT			
AES CONSULTING CC			
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Item No	Quantity	Rate	Amount
<u>SECTION NO. 3</u>			
<u>BILL NO. 3</u>			
<u>BRICKWORK</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>BRICKWORK</u>			
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 "Brixéal" 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			
Carried Forward		R	
TYPE MD2 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Pointing</u> Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc <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	29
<u>FACE BRICKWORK</u> <u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
2	Extra over brickwork for face brickwork in foundation	m2	9
<u>SUPERSTRUCTURE</u> <u>FACE BRICKWORK</u> <u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
3	Half brickwork for face brick walls pointed both sides	m2	23
4	One brickwork for face brick walls pointed both sides	m2	78
5	Half brickwork for face brickwork in beamfilling	m2	6
6	Fair raking and cutting	m	11
Carried Forward			R
TYPE MD2 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>			
7	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	9
8	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	11
9	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	2
<u>BRICKWORK SUNDRIES</u>			
<u>Brick reinforcement</u>			
10	75mm Wide reinforcement built in horizontally	m	78
11	150mm Wide reinforcement built in horizontally	m	284
<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	27
<u>Prestressed fabricated lintels</u>			
14	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10
<u>Ventillation bricks</u>			
15	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	8
Carried Forward to Summary of Section No. 3			R
TYPE MD2 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

[illegible]

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>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u>				
1	Roof covering with pitch not exceeding 25 degrees	m2	37	
	<u>Sundries</u>			
2	12" Thermal resistance sisalation laid on purlins	m2	37	
<u>RAINWATER DISPOSAL</u>				
<u>Aluzink seamless metal gutters:</u>				
3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	9	
4	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	6	
5	Extra over rainwater pipe for eaves offset	No	1	
Carried Forward				R
TYPE MD2 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za				

	Brought Forward	R
6 Extra over for closed ends	No	2
7 Ditto ,for shoe	No	2
Carried Forward to Summary of Section No. 3		R
TYPE MD2 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za		

[illegible]

Brought Forward			R
<u>DOORS, ETC.</u>			
<u>Wrought meranti doors hung to steel frames</u>			
8	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
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 900 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 (door raised by 120mm from bottom) (D2)	No	1
Carried Forward to Summary of Section No. 3			
TYPE MD2 CARPENTRY AND JOINERY AES CONSULTING CC admin@aesconsulting.co.za			R

Item No	Quantity	Rate	Amount
<u>SECTION NO. 3</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	Three lever mortice lock set plugged	No	2
3	Indicator lockset	No	2
<u>HANDLES</u>			
<u>Aluminium Pull Handle</u>			
4	Set of two, 300mm pull handles fixed back to back on doors	No	4
<u>DOORSTOPS</u>			
<u>Approved</u>			
5	38mm Diameter rubber door stop plugged	No	4
<u>DOOR CLOSERS AND FLOOR SPRINGS</u>			
Carried Forward			R
TYPE MD2 IRONMONGERY AES CONSULTING CC admin@aesconsulting.co.za			

[illegible]

Brought Forward			R
<u>LETTERS, NAMEPLATES, ETC.</u>			
<u>"Union" or similar approved</u>			
7	75 x 150mm Natural anodised aluminium plate with male or female symbol	No	2
<u>"Vaal Paragon" or similar approved</u>			
8	32mm Type 9 back grab rail 800mm long plugged	No	1
9	32mm Type 8 side grab rail 900mm girth plugged	No	1
<u>BATHROOM FITTINGS</u>			
<u>"Kimberley-Clark" or Simlilar</u>			
10	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	3
Carried Forward to Summary of Section No. 3			R
TYPE MD2 IRONMONGERY AES CONSULTING CC admin@aesconsulting.co.za			

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
3	Frame for door 900 x 2032mm high	No	1
<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	3
<u>WELDED SCREENS, GATES, ETC</u>			
Carried Forward			R
TYPE MD2 METALWORK AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward		R
<u>Steel gates and frames</u>		
6	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	
	No	2
<p style="text-align: right;">Carried Forward to Summary of Section No. 3</p> <p>TYPE MD2 METALWORK AES CONSULTING CC admin@aesconsulting.co.za</p>		
		R

[illegible]

Item No			Quantity	Rate	Amount
	<u>SECTION NO. 3</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>Soil drainage uPVC pipes:</u>				
1	100mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	15		
2	110mm Pipes laid in and including trenches not exceeding 1m deep	m	34		
	<u>Extra over uPVC pipes for fittings:</u>				
3	110mm Bend	No	4		
4	110mm Junction	No	4		
5	110mm Access junction	No	4		
	<u>Pre-cast concrete gulleys:</u>				
6	150mm Gulley not exceeding 2000mm deep	No	1		
	<u>Gratings, covers, etc</u>				
7	110mm Roding eye	No	1		
8	100mm ABC cast iron cleaning eye cover	No	1		
	<u>Sundries:</u>				
9	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	0,5		
	Carried Forward				R
	TYPE MD2 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za				

TYPE MD2
PLUMBING AND DRAINAGE
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	Brought Forward			R
<u>WATER SUPPLIES</u>				
<u>PCC Wash Trough</u>				
15	Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	1	
<u>WASTE UNIONS, ETC.</u>				
16	32 mm Chromium plated basin waste union	No	1	
<u>TRAPS, ETC.</u>				
17	40 x 50mm Rubber butyl deep seal "P" or "S" trap	No	1	
<u>TAPS, VALVES, ETC.</u>				
<u>"Cobra Watertech" or other equal approved</u>				
18	15mm elbow action tap plugged	No	1	
19	15mm gate valve plugged	No	7	
20	19mm chrome plated push button taps to wash troughs	No	4	
<u>SANITARY PLUMBING</u>				
<u>uPVC Pipes</u>				
21	50mm Pipes	m	11	
22	50mm Pipes laid in and including trenches under floors	m	8	
<u>Extra over uPVC pipes for fittings</u>				
23	50mm Bend	No	2	
24	50mm IE Bend	No	2	
Carried Forward				
TYPE MD2 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za				
				R

Brought Forward			R
25	50mm Vent valve	No	1
26	110mm Access bend	No	1
27	110mm Junction	No	2
28	100mm Access junction	No	1
29	110mm Reducing junction	No	2
30	110mm GI two way vent valve	No	4
31	110mm IE bend	No	4
32	110mm Pan connector	No	4
<u>TESTING:</u>			
33	Testing waste pipe system		Item
<u>WATER SUPPLIES</u>			
<u>HDPE pressure pipes class 12:</u>			
34	25mm Pipes laid in and including trenches not exceeding 1m deep	m	34
35	35mm Pipes laid in and including trenches not exceeding 1m deep	m	8
<u>Extra over HDPE pressure pipes for "plascon" fittings:</u>			
36	25mm Copper elbow adaptor	No	9
37	35mm Copper elbow adaptor	No	9
<u>CLASS O copper pipes:</u>			
38	15mm Pipes	m	15
39	22mm Pipes	m	15
Carried Forward			R
TYPE MD2 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

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Item No		Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>BILL NO. 11</u>				
<u>GLAZING</u>				
<u>SUPPLEMENTARY PREAMBLES</u>				
For preambles see "Specifications of materials and methods to be used - PW 371"				
<u>GLAZING TO STEEL WITH PUTTY</u>				
<u>4mm Obscure safety glass</u>				
1	Panes not exceeding 0,1 m2	m2	3	
<u>Mirrors</u>				
2	Stainless steel or equal approved mirror size 350 x 400m plugged to wall with chrome plated screws.	No	1	
Carried Forward to Summary of Section No. 3				R
TYPE MD2 GLAZING AES CONSULTING CC admin@aesconsulting.co.za				

Item No		Quantity	Rate	Amount
<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	5	
<u>ON WOOD</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
2	On doors (Internal)	m2	7	
3	On doors (External)	m2	7	
<u>ON METAL</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
4	On door frames	m2	13	
5	On gates (Measured over the full flat area of both sides)	m2	11	
6	On gutters and down pipes	m	15	
<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>				
7	On windows with burglar bars	m2	8	
Carried Forward to Summary of Section No. 3				R
TYPE MD2 PAINTWORK AES CONSULTING CC admin@aesconsulting.co.za				

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Item No		Quantity	Rate	Amount
	<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	102	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	102	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	13	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
4	Soft rock	m3	5	
5	Hard rock	m3	2	
	<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	5	
	<u>Risk of collapse of excavations</u>			
7	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	49	
	Carried Forward			
	TYPE MD7 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za		R	

Brought Forward			R
	<u>Keeping excavations free of water.</u>		
8	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>		
9	Under floors, steps, pavings, etc.	m3	5
10	Backfilling to trenches, holes, etc.	m3	39
	<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	38
12	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	27
	<u>Earth filling supplied by the contractor under parking areas, roadways, etc</u>		
13	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 93% Mod AASHTO density	m3	11
	<u>Prescribed density tests on filling</u>		
14	Modified AASHTO Density tests	No	4
Carried Forward			R
TYPE MD7 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<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	38
16	To bottom of concrete aprons	m2	25
17	To bottoms and sides of trenches, etc.	m2	55
Carried Forward to Summary of Section No. 4			R
TYPE MD7 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
	<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	5	
2	Aprons cast in panels	m3	3	
3	Ramp	m3	1	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	25	
5	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	25	
	<u>REINFORCED CONCRETE, ETC</u>			
	<u>25Mpa/19mm Concrete</u>			
6	Slabs	m3	3	
Carried Forward			R	
TYPE MD7 CONCRETE,FORMWORK AND REINFORCEMENT AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
7	Aprons and pavings to falls	m2	25
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
8	Surface beds, slabs, etc.	m2	33
<u>TEST CUBES</u>			
9	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4
<u>FORMWORK</u>			
<u>Rough formwork to sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	28
<u>REINFORCEMENT</u>			
<u>Mesh Reinforcement (measure nett)</u>			
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	33
Carried Forward to Summary of Section No. 4			R
TYPE MD7			
CONCRETE, FORMWORK AND REINFORCEMENT			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<u>SECTION NO. 4</u>			
<u>BILL NO. 3</u>			
<u>BRICKWORK</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>BRICKWORK</u>			
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			
Carried Forward		R	
TYPE MD7 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward			R
	<u>Pointing</u>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<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	24	
	<u>FACE BRICKWORK</u>			
	<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
2	Extra over brickwork for face brickwork in foundation	m2	10	
	<u>SUPERSTRUCTURE</u>			
	<u>FACE BRICKWORK</u>			
	<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
3	Half brickwork for face brick walls pointed both sides	m2	23	
4	One brickwork for face brick walls pointed both sides	m2	75	
5	Half brickwork for face brickwork in beamfilling	m2	6	
6	Fair raking and cutting	m	11	
	Carried Forward			R
	TYPE MD7 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>			
7	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	9
8	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	11
9	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	2
<u>BRICKWORK SUNDRIES</u>			
<u>Brick reinforcement</u>			
10	75mm Wide reinforcement built in horizontally	m	78
11	150mm Wide reinforcement built in horizontally	m	310
<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	27
<u>Prestressed fabricated lintels</u>			
14	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10
<u>Ventillation bricks</u>			
15	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	8
Carried Forward to Summary of Section No. 4			R
TYPE MD7 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<u>SECTION NO. 4</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	m2	6
<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	33
<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	11
Carried Forward to Summary of Section No. 4			R
TYPE MD7 WATERPROOFING AES CONSULTING CC admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<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>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	37
	<u>Sundries</u>		
2	12" Thermal resistance sisalition laid on purlins	m2	37
<u>RAINWATER DISPOSAL</u>			
<u>Aluzink seamless metal gutters:</u>			
3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	9
4	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	6
5	Extra over rainwater pipe for eaves offset	No	2
Carried Forward			R
TYPE MD7 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za			

		Brought Forward		R
6	Extra over for closed ends	No	2	
7	Ditto ,for shoe	No	2	
Carried Forward to Summary of Section No. 4				R
TYPE MD7				
ROOF COVERINGS				
AES CONSULTING CC				
admin@aesconsulting.co.za				

Item No		Quantity	Rate	Amount
	<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	43	
2	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	48	
3	76 x 38mm Wall plates	m	9	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	30	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	18	
6	Hurricane clips	No	24	
	<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	25	
	Carried Forward		R	
	TYPE MD7 CARPENTRY AND JOINERY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>DOORS, ETC.</u>			
<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	7
10	44mm Purpose made Framed batten door 900 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 (door raised by 120mm from bottom) (D2)	No	1
Carried Forward to Summary of Section No. 4			
TYPE MD7 CARPENTRY AND JOINERY AES CONSULTING CC admin@aesconsulting.co.za			R

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Brought Forward			R
<u>LETTERS, NAMEPLATES, ETC.</u>			
<u>"Union" or similar approved</u>			
7	75 x 150mm Natural anodised aluminium plate with male or female symbol	No	2
<u>"Vaal Paragon" or similar approved</u>			
8	32mm Type 9 back grab rail 800mm long plugged	No	1
9	32mm Type 8 side grab rail 900mm girth plugged	No	1
<u>BATHROOM FITTINGS</u>			
<u>"Kimberley-Clark" or Similar</u>			
10	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	8
Carried Forward to Summary of Section No. 4			R
TYPE MD7 IRONMONGERY AES CONSULTING CC admin@aesconsulting.co.za			

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	7	
<u>1,6mm Double rebated frames suitable for one brickwalls</u>				
2	Frame for door 813 x 2032mm high	No	1	
3	Frame for door 900 x 2032mm high	No	1	
<u>STEEL WINDOWS, DOORS, ETC</u>				
4	Window type NE1, 533 x 654mm high including burglar bars	No	11	
5	Window type NE 7,1022 x 654mm high including burglar bars	No	4	
<u>WELDED SCREENS, GATES, ETC</u>				
Carried Forward				R
TYPE MD7 METALWORK AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward		R
<u>Steel gates and frames</u>		
6	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	
	No	2
Carried Forward to Summary of Section No. 4		R
TYPE MD7 METALWORK AES CONSULTING CC admin@aesconsulting.co.za		

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Item No		Quantity	Rate	Amount
	<u>SECTION NO. 4</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>Soil drainage uPVC pipes:</u>			
1	100mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	27	
2	110mm Pipes laid in and including trenches not exceeding 1m deep	m	61	
	<u>Extra over uPVC pipes for fittings:</u>			
3	110mm Bend	No	7	
4	110mm Junction	No	7	
5	110mm Access junction	No	7	
	<u>Pre-cast concrete gulleys:</u>			
6	150mm Gulley not exceeding 2000mm deep	No	3	
	<u>Gratings, covers, etc</u>			
7	110mm Roding eye	No	2	
8	100mm ABC cast iron cleaning eye cover	No	2	
	<u>Sundries:</u>			
9	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	1	
	Carried Forward		R	
	TYPE MD7 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
10	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3	1
<u>FITTINGS</u>			
<u>White glazed fireclay or vitreous china coupling with SABS specification 497 in</u>			
11	Vaal semi close suite with 90 degree washdown pan (code VAA-772402WH) and matching vandal proof 6 litre Hibiscus cistern complete with front flush push button, lid, fitments and heavy duty solid white double flap toilet seat	No	7
12	"Flatback" wall urinal with spreader and waste union including approved urinal flush valve	No	7
13	Vaal "Pearl Paraplegic" semi close couple boxed suite with 90 degree washdown pan (code VAA-730103WH) and matching vandal proof 6 litre purpose made cistern complete with side-flush lever and purpose made urea seat, lid, fitments and heavy duty solid white double flap toilet seat, including F14C cranked rail and F16C cistern rail.	No	1
14	"Vaal hibiscus" wash hand basin bolted to wall including all fittings and necessary pipework	No	1
Carried Forward			R
TYPE MD7 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward			R
	<u>PCC Wash Trough</u>			
15	Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	3	
	<u>WASTE UNIONS, ETC.</u>			
16	32 mm Chromium plated basin waste union	No	1	
	<u>TRAPS, ETC.</u>			
17	40 x 50mm Rubber butyl deep seal "P" or "S" trap	No	1	
	<u>TAPS, VALVES, ETC.</u>			
	<u>"Cobra Watertech" or other equal approved</u>			
18	15mm elbow action tap plugged	No	1	
19	15mm gate valve plugged	No	16	
20	19mm chrome plated push button taps to wash troughs	No	6	
	<u>SANITARY PLUMBING</u>			
	<u>uPVC Pipes</u>			
21	50mm Pipes	m	20	
22	50mm Pipes laid in and including trenches under floors	m	14	
	<u>Extra over uPVC pipes for fittings</u>			
23	50mm Bend	No	3	
24	50mm IE Bend	No	4	
25	50mm Vent valve	No	2	
	Carried Forward			R
	TYPE MD7 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

TYPE MD7
PLUMBING AND DRAINAGE
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Item No		Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>BILL NO. 11</u>				
<u>GLAZING</u>				
<u>SUPPLEMENTARY PREAMBLES</u>				
For preambles see "Specifications of materials and methods to be used - PW 371"				
<u>GLAZING TO STEEL WITH PUTTY</u>				
<u>4mm Obscure safety glass</u>				
1	Panes not exceeding 0,1 m2	m2	8	
<u>Mirrors</u>				
2	Stainless steel or equal approved mirror size 350 x 400m plugged to wall with chrome plated screws.	No	1	
Carried Forward to Summary of Section No. 4				R
TYPE MD7 GLAZING AES CONSULTING CC admin@aesconsulting.co.za				

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	26
3	On doors (External)	m2	7
<u>ON METAL</u>			
<u>Undercoat and minimum 2 coat gloss enamel</u>			
4	On door frames	m2	22
5	On gates (Measured over the full flat area of both sides)	m2	7
6	On gutters and down pipes	m	15
<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>			
7	On windows with burglar bars	m2	16
Carried Forward to Summary of Section No. 4			R
TYPE MD7 PAINTWORK AES CONSULTING CC admin@aesconsulting.co.za			

[illegible]

Item No		Quantity	Rate	Amount
	<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	20	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	20	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	11	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
4	Soft rock	m3	5	
5	Hard rock	m3	2	
	<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	59	
	Carried Forward			
	TYPE FD2 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za		R	

Brought Forward			R
	<u>Keeping excavations free of water.</u>		
8	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>		
9	Under floors, steps, pavings, etc.	m3	2
10	Backfilling to trenches, holes, etc.	m3	5
	<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	18
12	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	17
	<u>Earth filling supplied by the contractor under parking areas, roadways, etc</u>		
13	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 93% Mod AASHTO density	m3	5
	<u>Prescribed density tests on filling</u>		
14	Modified AASHTO Density tests	No	4
Carried Forward			R
TYPE FD2 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

[illegible]

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	4	
2	Aprons cast in panels	m3	3	
3	Ramp	m3	1	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	18	
5	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	20	
	<u>REINFORCED CONCRETE, ETC</u>			
	<u>25Mpa/19mm Concrete</u>			
6	Slabs	m3	2	
	Carried Forward			
	TYPE FD2			
	CONCRETE, FORMWORK AND REINFORCEMENT			
	AES CONSULTING CC			
	admin@aesconsulting.co.za			
			R	

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
7	Aprons and pavings to falls	m2	17
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
8	Surface beds, slabs, etc.	m2	18
<u>TEST CUBES</u>			
9	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4
<u>FORMWORK</u>			
<u>Rough formwork to sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	16
<u>REINFORCEMENT</u>			
<u>Mesh Reinforcement (measure nett)</u>			
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	18
Carried Forward to Summary of Section No. 5			R
TYPE FD2			
CONCRETE, FORMWORK AND REINFORCEMENT			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<u>SECTION NO. 5</u>			
<u>BILL NO. 3</u>			
<u>BRICKWORK</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>BRICKWORK</u>			
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			
Carried Forward		R	
TYPE FD2 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Pointing</u> Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc <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	26
<u>FACE BRICKWORK</u> <u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
2	Extra over brickwork for face brickwork in foundation	m2	8
<u>SUPERSTRUCTURE</u> <u>FACE BRICKWORK</u> <u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
3	Half brickwork for face brick walls pointed both sides	m2	7
4	One brickwork for face brick walls pointed both sides	m2	90
5	Half brickwork for face brickwork in beamfilling	m2	10
6	Fair raking and cutting	m	6
Carried Forward			R
TYPE FD2 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>			
7	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	7
8	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	4
9	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	4
<u>BRICKWORK SUNDRIES</u>			
<u>Brick reinforcement</u>			
10	75mm Wide reinforcement built in horizontally	m	46
11	150mm Wide reinforcement built in horizontally	m	246
<u>Turning pieces</u>			
12	220mm Wide turning piece to lintel etc	m	8
<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	9
<u>Prestressed fabricated lintels</u>			
14	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	7
<u>Ventillation bricks</u>			
15	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	6
Carried Forward to Summary of Section No. 5			R
TYPE FD2 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

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	m2	5	
<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>				
2	Under surface beds	m2	18	
<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	24	
Carried Forward to Summary of Section No. 5				R
TYPE FD2 WATERPROOFING AES CONSULTING CC admin@aesconsulting.co.za				

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>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	25	
	<u>Sundries</u>			
2	12" Thermal resistance sisalation laid on purlins	m2	25	
	<u>RAINWATER DISPOSAL</u>			
	<u>Aluzink seamless metal gutters:</u>			
3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	9	
4	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	6	
5	Extra over rainwater pipe for eaves offset	No	2	
	Carried Forward			
	TYPE FD2 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za		R	

Brought Forward			R
6	Extra over for closed ends	No	2
7	Ditto ,for shoe	No	2
Carried Forward to Summary of Section No. 5			R
TYPE FD2			
ROOF COVERINGS			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
	<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	51	
2	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	15	
3	76 x 38mm Wall plates	m	7	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	25	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	3	
6	Hurricane clips	No	15	
	<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	22	
	Carried Forward		R	
	TYPE FD2 CARPENTRY AND JOINERY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>DOORS, ETC.</u>			
<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
10	44mm Purpose made Framed batten door 900 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 (door raised by 120mm from bottom) (D2)	No	1
Carried Forward to Summary of Section No. 5			
TYPE FD2			
CARPENTRY AND JOINERY			
AES CONSULTING CC			
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Brought Forward				R
	<u>Yale or equal approved</u>			
6	Y202RC or equal approved heavy duty door closer with cover fixed to metal	No	1	
Carried Forward				R

TYPE FD2
IRONMONGERY
AES CONSULTING CC
admin@aesconsulting.co.za

Brought Forward			R
<u>LETTERS, NAMEPLATES, ETC.</u>			
<u>"Union" or similar approved</u>			
7	75 x 150mm Natural anodised aluminium plate with male or female symbol	No	1
<u>"Vaal Paragon" or similar approved</u>			
8	32mm Type 9 back grab rail 800mm long plugged	No	1
9	32mm Type 8 side grab rail 900mm girth plugged	No	1
<u>BATHROOM FITTINGS</u>			
<u>"Kimberley-Clark" or Similar</u>			
10	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	3
Carried Forward to Summary of Section No. 5			R
TYPE FD2			
IRONMONGERY			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<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 2	
<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No 1	
3	Frame for door 900 x 2032mm high	No 1	
<u>STEEL WINDOWS, DOORS, ETC</u>			
4	Window type NE1, 533 x 654mm high including burglar bars	No 2	
5	Window type NE 7,1022 x 654mm high including burglar bars	No 2	
<u>WELDED SCREENS, GATES, ETC</u>			
Carried Forward			R
TYPE FD2 METALWORK AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward		R
<u>Steel gates and frames</u>		
6	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	
	No	2
Carried Forward to Summary of Section No. 5		R
TYPE FD2 METALWORK AES CONSULTING CC admin@aesconsulting.co.za		

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Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</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>Soil drainage uPVC pipes:</u>			
1	100mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	15	
2	110mm Pipes laid in and including trenches not exceeding 1m deep	m	34	
	<u>Extra over uPVC pipes for fittings:</u>			
3	110mm Bend	No	4	
4	110mm Junction	No	4	
5	110mm Access junction	No	4	
	<u>Pre-cast concrete gulleys:</u>			
6	150mm Gulley not exceeding 2000mm deep	No	2	
	<u>Gratings, covers, etc</u>			
7	110mm Roding eye	No	1	
8	100mm ABC cast iron cleaning eye cover	No	1	
	<u>Sundries:</u>			
9	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	0,5	
	Carried Forward			
	TYPE FD2 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za		R	

Brought Forward			R
10	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3	0,3
<u>FITTINGS</u>			
<u>White glazed fireclay or vitreous china coupling with SABS specification 497 in</u>			
11	Vaal semi close suite with 90 degree washdown pan (code VAA-772402WH) and matching vandal proof 6 litre Hibiscus cistern complete with front flush push button, lid, fitments and heavy duty solid white double flap toilet seat	No	2
12	Vaal "Pearl Paraplegic" semi close couple boxed suite with 90 degree washdown pan (code VAA-730103WH) and matching vandal proof 6 litre purpose made cistern complete with side-flush lever and purpose made urea seat, lid, fitments and heavy duty solid white double flap toilet seat, including F14C cranked rail and F16C cistern rail.	No	1
13	"Vaal hibiscus" wash hand basin bolted to wall including all fittings and necessary pipework	No	1
Carried Forward			R
TYPE FD2 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward			R
	<u>PCC Wash Trough</u>			
14	Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	1	
	<u>WASTE UNIONS, ETC.</u>			
15	32 mm Chromium plated basin waste union	No	1	
	<u>TRAPS, ETC.</u>			
16	40 x 50mm Rubber butyl deep seal "P" or "S" trap	No	1	
	<u>TAPS, VALVES, ETC.</u>			
	<u>"Cobra Watertech" or other equal approved</u>			
17	15mm elbow action tap plugged	No	1	
18	15mm gate valve plugged	No	4	
19	19mm chrome plated push button taps to wash troughs	No	2	
	<u>Sundires</u>			
20	Stainless-steel SHE-BIN plugged to walls	No	1	
	<u>SANITARY PLUMBING</u>			
	<u>uPVC Pipes</u>			
21	50mm Pipes	m	11	
22	50mm Pipes laid in and including trenches under floors	m	8	
	<u>Extra over uPVC pipes for fittings</u>			
23	50mm Bend	No	2	
	Carried Forward			R
	TYPE FD2 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
24	50mm IE Bend	No	2
25	50mm Vent valve	No	1
26	110mm Access bend	No	1
27	110mm Junction	No	2
28	100mm Access junction	No	1
29	110mm Reducing junction	No	2
30	110mm GI two way vent valve	No	4
31	110mm IE bend	No	4
32	110mm Pan connector	No	4
<u>TESTING:</u>			
33	Testing waste pipe system		Item
<u>WATER SUPPLIES</u>			
<u>HDPE pressure pipes class 12:</u>			
34	25mm Pipes laid in and including trenches not exceeding 1m deep	m	34
35	35mm Pipes laid in and including trenches not exceeding 1m deep	m	8
<u>Extra over HDPE pressure pipes for "plascon" fittings:</u>			
36	25mm Copper elbow adaptor	No	9
37	35mm Copper elbow adaptor	No	9
<u>CLASS O copper pipes:</u>			
38	15mm Pipes	m	15
Carried Forward			R
TYPE FD2 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
39	22mm Pipes	m	15
<u>Extra over class O copper pipes for capillary fittings:</u>			
40	15mm Fittings	No	8
41	22mm Fittings	No	8
<u>TESTING:</u>			
42	Testing water pipe system		Item
Carried Forward to Summary of Section No. 5			R
TYPE FD2			
PLUMBING AND DRAINAGE			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
<u>SECTION NO. 5</u>				
<u>BILL NO. 11</u>				
<u>GLAZING</u>				
<u>SUPPLEMENTARY PREAMBLES</u>				
For preambles see "Specifications of materials and methods to be used - PW 371"				
<u>GLAZING TO STEEL WITH PUTTY</u>				
<u>4mm Obscure safety glass</u>				
1	Panes not exceeding 0,1 m2	m2	3	
<u>Mirrors</u>				
2	Stainless steel or equal approved mirror size 350 x 400m plugged to wall with chrome plated screws.	No	1	
Carried Forward to Summary of Section No. 5				R
TYPE FD2 GLAZING AES CONSULTING CC admin@aesconsulting.co.za				

Item No		Quantity	Rate	Amount
<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	3	
<u>ON WOOD</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
2	On doors (Internal)	m2	7	
3	On doors (External)	m2	7	
<u>ON METAL</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
4	On door frames	m2	8	
5	On gates (Measured over the full flat area of both sides)	m2	7	
6	On gutters and down pipes	m	15	
<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>				
7	On windows with burglar bars	m2	4	
Carried Forward to Summary of Section No. 5				R
TYPE FD2 PAINTWORK AES CONSULTING CC admin@aesconsulting.co.za				

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Item No		Quantity	Rate	Amount
	<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	40	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	40	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	13	
	<u>Extra over trench and hole excavations in earth for excavation:</u>			
4	Soft rock	m3	5	
5	Hard rock	m3	2	
	<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	10	
	<u>Risk of collapse of excavations</u>			
7	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	49	
	Carried Forward			
	TYPE FD5 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za		R	

Brought Forward			R
	<u>Keeping excavations free of water.</u>		
8	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>		
9	Under floors, steps, pavings, etc.	m3	7
10	Backfilling to trenches, holes, etc.	m3	6
	<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	30
12	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	24
	<u>Earth filling supplied by the contractor under parking areas, roadways, etc</u>		
13	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 93% Mod AASHTO density	m3	9
	<u>Prescribed density tests on filling</u>		
14	Modified AASHTO Density tests	No	4
Carried Forward			R
TYPE FD5 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<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	30
16	To bottom of concrete aprons	m2	24
17	To bottoms and sides of trenches, etc.	m2	55
Carried Forward to Summary of Section No. 6			R
TYPE FD5 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

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	Aprons cast in panels	m3	3	
3	Ramp	m3	1	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	28	
5	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	27	
	<u>REINFORCED CONCRETE, ETC</u>			
	<u>25Mpa/19mm Concrete</u>			
6	Slabs	m3	4	
	Carried Forward		R	
	TYPE FD5 CONCRETE,FORMWORK AND REINFORCEMENT AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
7	Aprons and pavings to falls	m2	24
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>			
8	Surface beds, slabs, etc.	m2	30
<u>TEST CUBES</u>			
9	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4
<u>FORMWORK</u>			
<u>Rough formwork to sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	47
<u>REINFORCEMENT</u>			
<u>Mesh Reinforcement (measure nett)</u>			
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	30
Carried Forward to Summary of Section No. 6			R
TYPE FD5			
CONCRETE, FORMWORK AND REINFORCEMENT			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<u>SECTION NO. 6</u>			
<u>BILL NO. 3</u>			
<u>BRICKWORK</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>BRICKWORK</u>			
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			
Carried Forward		R	
TYPE FD5 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Pointing</u>			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
<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	42
<u>FACE BRICKWORK</u>			
<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
2	Extra over brickwork for face brickwork in foundation	m2	24
<u>SUPERSTRUCTURE</u>			
<u>FACE BRICKWORK</u>			
<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
3	Half brickwork for face brick walls pointed both sides	m2	23
4	One brickwork for face brick walls pointed both sides	m2	89
5	Half brickwork for face brickwork in beamfilling	m2	6
6	Fair raking and cutting	m	11
Carried Forward			R
TYPE FD5 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>			
7	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	9
8	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	11
9	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	2
<u>BRICKWORK SUNDRIES</u>			
<u>Brick reinforcement</u>			
10	75mm Wide reinforcement built in horizontally	m	78
11	150mm Wide reinforcement built in horizontally	m	264
<u>Turning pieces</u>			
12	220mm Wide turning piece to lintel etc	m	8
<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	24
<u>Prestressed fabricated lintels</u>			
14	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	8
<u>Ventillation bricks</u>			
15	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	8
Carried Forward to Summary of Section No. 6			R
TYPE FD5 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<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	m2	6
<u>One layer of 250 micron waterproof sheeting and sealed at overlaps with pressure sensitive tape</u>			
2	Under surface beds	m2	30
<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	17
Carried Forward to Summary of Section No. 6			R
TYPE FD5 WATERPROOFING AES CONSULTING CC admin@aesconsulting.co.za			

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>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	45	
	<u>Sundries</u>			
2	12" Thermal resistance sisalation laid on purlins	m2	45	
	<u>RAINWATER DISPOSAL</u>			
	<u>Aluzink seamless metal gutters:</u>			
3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	9	
4	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	6	
5	Extra over rainwater pipe for eaves offset	No	2	
	Carried Forward			
	TYPE FD5 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za		R	

Brought Forward			R
6	Extra over for closed ends	No	2
7	Ditto ,for shoe	No	2
Carried Forward to Summary of Section No. 6			R
TYPE FD5 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za			

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	35	
2	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	43	
3	76 x 38mm Wall plates	m	9	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	30	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	18	
6	Hurricane clips	No	24	
	<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	
	Carried Forward		R	
	TYPE FD5 CARPENTRY AND JOINERY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>DOORS, ETC.</u>			
<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	5
10	44mm Purpose made Framed batten door 900 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 (door raised by 120mm from bottom) (D2)	No	1
Carried Forward to Summary of Section No. 6			
TYPE FD5			
CARPENTRY AND JOINERY			
AES CONSULTING CC			
admin@aesconsulting.co.za			

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	Three lever mortice lockset	No	2		
3	Indicator lockset	No	5		
	<u>HANDLES</u>				
	<u>Aluminium Pull Handle</u>				
4	Set of two, 300mm pull handles fixed back to back on doors	No	7		
	<u>DOORSTOPS</u>				
	<u>Approved</u>				
5	38mm Diameter rubber door stop plugged	No	7		
	<u>DOOR CLOSERS AND FLOOR SPRINGS</u>				
	Carried Forward				R
	TYPE FD5 IRONMONGERY AES CONSULTING CC admin@aesconsulting.co.za				

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Brought Forward			R
<u>LETTERS, NAMEPLATES, ETC.</u>			
<u>"Union" or similar approved</u>			
7	75 x 150mm Natural anodised aluminium plate with male or female symbol	No	2
<u>"Vaal Paragon" or similar approved</u>			
8	32mm Type 9 back grab rail 800mm long plugged	No	1
9	32mm Type 8 side grab rail 900mm girth plugged	No	1
<u>BATHROOM FITTINGS</u>			
<u>"Kimberley-Clark" or Similar</u>			
10	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	6
Carried Forward to Summary of Section No. 6			R
TYPE FD5			
IRONMONGERY			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
<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	5	
<u>1,6mm Double rebated frames suitable for one brickwalls</u>				
2	Frame for door 813 x 2032mm high	No	1	
3	Frame for door 900 x 2032mm high	No	1	
<u>STEEL WINDOWS, DOORS, ETC</u>				
4	Window type NE1, 533 x 654mm high including burglar bars	No	6	
5	Window type NE 7,1022 x 654mm high including burglar bars	No	3	
<u>WELDED SCREENS, GATES, ETC</u>				
Carried Forward				R
TYPE FD5 METALWORK AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward		R
<u>Steel gates and frames</u>		
6	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	
	No	2
Carried Forward to Summary of Section No. 6		R
TYPE FD5 METALWORK AES CONSULTING CC admin@aesconsulting.co.za		

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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>Soil drainage uPVC pipes:</u>			
1	100mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	18	
2	110mm Pipes laid in and including trenches not exceeding 1m deep	m	41	
	<u>Extra over uPVC pipes for fittings:</u>			
3	110mm Bend	No	5	
4	110mm Junction	No	5	
5	110mm Access junction	No	5	
	<u>Pre-cast concrete gulleys:</u>			
6	150mm Gulley not exceeding 2000mm deep	No	1	
	<u>Gratings, covers, etc</u>			
7	110mm Roding eye	No	1	
8	100mm ABC cast iron cleaning eye cover	No	1	
	<u>Sundries:</u>			
9	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	0,5	
	Carried Forward			
	TYPE FD5 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za		R	

[illegible]

	Brought Forward			R
	<u>PCC Wash Trough</u>			
14	Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	1	
	<u>WASTE UNIONS, ETC.</u>			
15	32 mm Chromium plated basin waste union	No	1	
	<u>TRAPS, ETC.</u>			
16	40 x 50mm Rubber butyl deep seal "P" or "S" trap	No	1	
	<u>TAPS, VALVES, ETC.</u>			
	<u>"Cobra Watertech" or other equal approved</u>			
17	15mm elbow action tap plugged	No	1	
18	15mm gate valve plugged	No	7	
19	19mm chrome plated push button taps to wash troughs	No	4	
	<u>Sundires</u>			
20	Stainless-steel SHE-BIN plugged to walls	No	2	
	<u>SANITARY PLUMBING</u>			
	<u>uPVC Pipes</u>			
21	50mm Pipes	m	13	
22	50mm Pipes laid in and including trenches under floors	m	10	
	<u>Extra over uPVC pipes for fittings</u>			
23	50mm Bend	No	3	
	Carried Forward			R
	TYPE FD5 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
24	50mm IE Bend	No	3
25	50mm Vent valve	No	1
26	110mm Access bend	No	1
27	110mm Junction	No	3
28	100mm Access junction	No	1
29	110mm Reducing junction	No	3
30	110mm GI two way vent valve	No	5
31	110mm IE bend	No	5
32	110mm Pan connector	No	5
<u>TESTING:</u>			
33	Testing waste pipe system		Item
<u>WATER SUPPLIES</u>			
<u>HDPE pressure pipes class 12:</u>			
34	25mm Pipes laid in and including trenches not exceeding 1m deep	m	41
35	35mm Pipes laid in and including trenches not exceeding 1m deep	m	10
<u>Extra over HDPE pressure pipes for "plascon" fittings:</u>			
36	25mm Copper elbow adaptor	No	11
37	35mm Copper elbow adaptor	No	11
<u>CLASS O copper pipes:</u>			
38	15mm Pipes	m	18
Carried Forward			R
TYPE FD5 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
39	22mm Pipes	m	18
<u>Extra over class O copper pipes for capillary fittings:</u>			
40	15mm Fittings	No	10
41	22mm Fittings	No	10
<u>TESTING:</u>			
42	Testing water pipe system		Item
Carried Forward to Summary of Section No. 6			R
TYPE FD5 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Item No	Quantity	Rate	Amount
<u>SECTION NO. 6</u>			
<u>BILL NO. 11</u>			
<u>GLAZING</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
For preambles see "Specifications of materials and methods to be used - PW 371"			
<u>GLAZING TO STEEL WITH PUTTY</u>			
<u>4mm Obscure safety glass</u>			
1	Panes not exceeding 0,1 m2	m2	6
<u>Mirrors</u>			
2	Stainless steel or equal approved mirror size 350 x 400m plugged to wall with chrome plated screws.	No	1
Carried Forward to Summary of Section No. 6			R
TYPE FD5 GLAZING AES CONSULTING CC admin@aesconsulting.co.za			

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	5	
<u>ON WOOD</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
2	On doors (Internal)	m2	18	
3	On doors (External)	m2	7	
<u>ON METAL</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
4	On door frames	m2	14	
5	On gates (Measured over the full flat area of both sides)	m2	7	
6	On gutters and down pipes	m	15	
<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>				
7	On windows with burglar bars	m2	12	
Carried Forward to Summary of Section No. 6				R
TYPE FD5 PAINTWORK AES CONSULTING CC admin@aesconsulting.co.za				

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Item No		Quantity	Rate	Amount
	<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	102	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	102	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
3	Trenches	m3	17	
	<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	5	
	<u>Risk of collapse of excavations</u>			
7	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	25	
	Carried Forward		R	
	TYPE FD10 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
	<u>Keeping excavations free of water.</u>		
8	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>		
9	Under floors, steps, pavings, etc.	m3	5
10	Backfilling to trenches, holes, etc.	m3	10
	<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	33
12	Compaction of ground surface to aprons etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	27
	<u>Earth filling supplied by the contractor under parking areas, roadways, etc</u>		
13	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 93% Mod AASHTO density	m3	11
	<u>Prescribed density tests on filling</u>		
14	Modified AASHTO Density tests	No	4
Carried Forward			R
TYPE FD10 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<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	33
16	To bottom of concrete aprons	m2	25
17	To bottoms and sides of trenches, etc.	m2	55
Carried Forward to Summary of Section No. 7			R
TYPE FD10 EARTHWORKS AES CONSULTING CC admin@aesconsulting.co.za			

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	10	
2	2Aprons cast in panels	m3	3	
3	Ramp	m3	1	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	25	
5	Thickening down the edge of apron 150mm deep, 200mm top and tapering to 100mm at bottom including all excavations, formwork, backfilling, etc	m	25	
	<u>REINFORCED CONCRETE, ETC</u>			
	<u>25Mpa/19mm Concrete</u>			
6	Slabs	m3	3	
	Carried Forward		R	
	TYPE FD10 CONCRETE,FORMWORK AND REINFORCEMENT AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surfaces of concrete smooth with a wood float</u>		
7	Aprons and paving to falls	m2	25
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>		
8	Surface beds, slabs, etc.	m2	33
<u>TEST CUBES</u>			
9	Allow for preparing a set of three test cubes each size 150 x 150 x 150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No	4
<u>FORMWORK</u>			
	<u>Rough formwork to sides:</u>		
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	28
<u>REINFORCEMENT</u>			
	<u>Mesh Reinforcement (measure nett)</u>		
11	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2	33
Carried Forward to Summary of Section No. 7			R
TYPE FD10			
CONCRETE, FORMWORK AND REINFORCEMENT			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 7</u>			
	<u>BILL NO. 3</u>			
	<u>BRICKWORK</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>BRICKWORK</u>			
	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			
	Carried Forward		R	
	TYPE FD10 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward			R
	<u>Pointing</u>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc			
	<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	59	
	<u>FACE BRICKWORK</u>			
	<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
2	Extra over brickwork for face brickwork in foundation	m2	24	
	<u>SUPERSTRUCTURE</u>			
	<u>FACE BRICKWORK</u>			
	<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
3	Half brickwork for face brick walls pointed both sides	m2	23	
4	One brickwork for face brick walls pointed both sides	m2	110	
5	Half brickwork for face brickwork in beamfilling	m2	6	
6	Fair raking and cutting	m	11	
	Carried Forward			R
	TYPE FD10 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>			
7	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	9
8	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	11
9	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	2
<u>BRICKWORK SUNDRIES</u>			
<u>Brick reinforcement</u>			
10	75mm Wide reinforcement built in horizontally	m	78
11	150mm Wide reinforcement built in horizontally	m	286
<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	27
<u>Prestressed fabricated lintels</u>			
14	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	10
<u>Ventillation bricks</u>			
15	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No	8
Carried Forward to Summary of Section No. 7			R
TYPE FD10 MASONRY AES CONSULTING CC admin@aesconsulting.co.za			

[illegible]

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"			
	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>0,6mm "Kliplok" roof sheeting in chromadek finish fixed to timber purlins (elsewhere)</u>			
1	Roof covering with pitch not exceeding 25 degrees	m2	37	
	<u>Sundries</u>			
2	12" Thermal resistance sisalation laid on purlins	m2	37	
	<u>RAINWATER DISPOSAL</u>			
	<u>Aluzink seamless metal gutters:</u>			
3	100 x 100 x 0.6mm Standard rainwater gutters fixed with gutters brackets	m	9	
4	75 x 100 x 0.6mm Thick galvanised rainwater downpipes fixed to wall	m	6	
5	Extra over rainwater pipe for eaves offset	No	1	
	Carried Forward			
	TYPE FD10 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za		R	

	Brought Forward		R	
6	Extra over for closed ends	No	1	
7	Ditto ,for shoe	No	1	
Carried Forward to Summary of Section No. 7			R	
TYPE FD10 ROOF COVERINGS AES CONSULTING CC admin@aesconsulting.co.za				

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	43	
2	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	48	
3	76 x 38mm Wall plates	m	9	
	<u>Sundries</u>			
4	Two coats creosote on sawn timbers	m2	30	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	18	
6	Hurricane clips	No	24	
	<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	25	
	Carried Forward		R	
	TYPE FD10 CARPENTRY AND JOINERY AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>DOORS, ETC.</u>			
<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	10
10	44mm Purpose made Framed batten door 900 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 (door raised by 120mm from bottom) (D2)	No	1
Carried Forward to Summary of Section No. 7			
TYPE FD10 CARPENTRY AND JOINERY AES CONSULTING CC admin@aesconsulting.co.za			R

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	2		
	<u>LOCKS</u>				
	<u>Approved</u>				
2	Three lever mortice lockset	No	2		
3	Indicator lockset	No	10		
	<u>HANDLES</u>				
	<u>Aluminium Pull Handle</u>				
4	Set of two, 300mm pull handles fixed back to back on doors	No	12		
	<u>DOORSTOPS</u>				
	<u>Approved</u>				
5	38mm Diameter rubber door stop plugged	No	12		
	Carried Forward				R
	TYPE FD10 IRONMONGERY AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward				R
<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	2	
<u>BATHROOM FITTINGS</u>				
<u>"Kimberley-Clark" or Similar</u>				
7	"Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder	No	11	
Carried Forward to Summary of Section No. 7				R
TYPE FD10 IRONMONGERY AES CONSULTING CC admin@aesconsulting.co.za				

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 10	
<u>1,6mm Double rebated frames suitable for one brickwalls</u>			
2	Frame for door 813 x 2032mm high	No 1	
3	Frame for door 900 x 2032mm high	No 1	
<u>STEEL WINDOWS, DOORS, ETC</u>			
4	Window type NE1, 533 x 654mm high including burglar bars	No 10	
5	Window type NE 7,1022 x 654mm high including burglar bars	No 4	
<u>WELDED SCREENS, GATES, ETC</u>			
Carried Forward			R
TYPE FD10 METALWORK AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward		R
<u>Steel gates and frames</u>		
6	Single gate and frame 813 x 2032mm high of 25 x 25x 2mm hollow section frame and 25 x 25x 2mm hollow section horizontal middle rail filled in with 12 x 12mm square section vertical rails at 75mm centres and fitted with a pair of suitable hinges welded to frame and with locking mechanism for padlock all in and including outer frame of 25 x 25 x 2mm hollow section welded frame bolted to brickwork.	
	No	2
Carried Forward to Summary of Section No. 7		R
TYPE FD10 METALWORK AES CONSULTING CC admin@aesconsulting.co.za		

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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>Soil drainage uPVC pipes:</u>			
1	100mm Pipes vertically or ramped to cleaning eyes etc (no excavation)	m	25	
2	110mm Pipes laid in and including trenches not exceeding 1m deep	m	56	
	<u>Extra over uPVC pipes for fittings:</u>			
3	110mm Bend	No	6	
4	110mm Junction	No	6	
5	110mm Access junction	No	6	
	<u>Pre-cast concrete gulleys:</u>			
6	150mm Gulley not exceeding 2000mm deep	No	2	
	<u>Gratings, covers, etc</u>			
7	110mm Roding eye	No	2	
8	100mm ABC cast iron cleaning eye cover	No	2	
	<u>Sundries:</u>			
9	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m3	1	
	Carried Forward		R	
	TYPE FD10 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
10	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m3	1
<u>FITTINGS</u>			
<u>White glazed fireclay or vitreous china coupling with SABS specification 497 in</u>			
11	Vaal semi close suite with 90 degree washdown pan (code VAA-772402WH) and matching vandal proof 6 litre Hibiscus cistern complete with front flush push button, lid, fitments and heavy duty solid white double flap toilet seat	No	10
12	Vaal "Pearl Paraplegic" semi close couple boxed suite with 90 degree washdown pan (code VAA-730103WH) and matching vandal proof 6 litre purpose made cistern complete with side-flush lever and purpose made urea seat, lid, fitments and heavy duty solid white double flap toilet seat, including F14C cranked rail and F16C cistern rail.	No	1
13	"Vaal hibiscus" wash hand basin bolted to wall including all fittings and necessary pipework	No	1
Carried Forward			R
TYPE FD10 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward			R
	<u>PCC Wash Trough</u>			
14	Supply and install pre-cast concrete double wash-trough, complete with all necessary pipework including soakaway size 1000 x 1000 x 1000mm covered with "bidim"	No	3	
	<u>WASTE UNIONS, ETC.</u>			
15	32 mm Chromium plated basin waste union	No	1	
	<u>TRAPS, ETC.</u>			
16	40 x 50mm Rubber butyl deep seal "P" or "S" trap	No	1	
	<u>TAPS, VALVES, ETC.</u>			
	<u>"Cobra Watertech" or other equal approved</u>			
17	15mm elbow action tap plugged	No	1	
18	15mm gate valve plugged	No	12	
19	19mm chrome plated push button taps to wash troughs	No	6	
	<u>Sundires</u>			
20	Stainless-steel SHE-BIN plugged to walls	No	3	
	<u>SANITARY PLUMBING</u>			
	<u>uPVC Pipes</u>			
21	50mm Pipes	m	19	
22	50mm Pipes laid in and including trenches under floors	m	13	
	<u>Extra over uPVC pipes for fittings</u>			
23	50mm Bend	No	3	
	Carried Forward			R
	TYPE FD10 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward			R
24	50mm IE Bend	No	4	
25	50mm Vent valve	No	2	
26	110mm Access bend	No	2	
27	110mm Junction	No	3	
28	100mm Access junction	No	2	
29	110mm Reducing junction	No	3	
30	110mm GI two way vent valve	No	6	
31	110mm IE bend	No	6	
32	110mm Pan connector	No	6	
	<u>TESTING:</u>			
33	Testing waste pipe system		Item	
	<u>WATER SUPPLIES</u>			
	<u>HDPE pressure pipes class 12:</u>			
34	25mm Pipes laid in and including trenches not exceeding 1m deep	m	56	
35	35mm Pipes laid in and including trenches not exceeding 1m deep	m	13	
	<u>Extra over HDPE pressure pipes for "plascon" fittings:</u>			
36	25mm Copper elbow adaptor	No	15	
37	35mm Copper elbow adaptor	No	15	
	<u>CLASS O copper pipes:</u>			
38	15mm Pipes	m	25	
	Carried Forward			R
	TYPE FD10 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
39	22mm Pipes	m	25
<u>Extra over class O copper pipes for capillary fittings:</u>			
40	15mm Fittings	No	13
41	22mm Fittings	No	13
<u>TESTING:</u>			
42	Testing water pipe system		Item
Carried Forward to Summary of Section No. 7			R
TYPE FD10 PLUMBING AND DRAINAGE AES CONSULTING CC admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
<u>SECTION NO. 7</u>				
<u>BILL NO. 11</u>				
<u>GLAZING</u>				
<u>SUPPLEMENTARY PREAMBLES</u>				
For preambles see "Specifications of materials and methods to be used - PW 371"				
<u>GLAZING TO STEEL WITH PUTTY</u>				
<u>4mm Obscure safety glass</u>				
1	Panes not exceeding 0,1 m2	m2	9	
<u>Mirrors</u>				
2	Stainless steel or equal approved mirror size 350 x 400m plugged to wall with chrome plated screws.	No	1	
Carried Forward to Summary of Section No. 7				R
TYPE FD10 GLAZING AES CONSULTING CC admin@aesconsulting.co.za				

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	5	
<u>ON WOOD</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
2	On doors (Internal)	m2	37	
3	On doors (External)	m2	7	
<u>ON METAL</u>				
<u>Undercoat and minimum 2 coat gloss enamel</u>				
4	On door frames	m2	24	
5	On gates (Measured over the full flat area of both sides)	m2	7	
6	On gutters and down pipes	m	15	
<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>				
7	On windows with burglar bars	m2	18	
Carried Forward to Summary of Section No. 7				R
TYPE FD10 PAINTWORK AES CONSULTING CC admin@aesconsulting.co.za				

[illegible]

Item No		Quantity	Rate	Amount
	<u>WATER SUPPLIES</u>			
	<u>SECTION NO. 8</u>			
	<u>BILL NO. 1</u>			
	<u>Class 10 HDPe type IV pipes</u>			
1	40mm Pipes laid in and including trenches not exceeding 1m deep	m	30	
2	50mm Pipes laid in and including trenches not exceeding 1m deep	m	175	
	<u>Extra over Class 10 HDPE type IV pipes for fittings</u>			
3	40mm Fittings	No	20	
4	40mm Reducer	No	6	
5	40mm Bend	No	12	
6	50mm Reducer	No	6	
7	50mm Bend	No	12	
8	50mm Threaded adaptor	No	5	
	<u>Galvanised medium steel pipes with screwed and socketed joints</u>			
9	50mm Pipes	m	24	
	<u>Extra over galvanised medium steel pipes with screwed and socketed joints for steel fittings</u>			
10	50mm Fittings	No	4	
11	50mm Bush	No	4	
12	50mm Elbow	No	4	
	Carried Forward		R	
	EXTERNAL WORKS WATER SUPPLY AES CONSULTING CC admin@aesconsulting.co.za			

[illegible]

Item No	Quantity	Rate	Amount
<u>SECTION NO. 8</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>Excavation in earth not exceeding 2m deep</u>			
1	Holes	m3	8
<u>Extra over trench and hole excavations in earth for excavation in</u>			
2	Soft rock	m3	4
3	Hard rock	m3	2
<u>Extra over all excavations for carting away</u>			
4	Surplus material from excavations and/stock piles on site to the dumping site to be located by the Contractor.	m3	6
<u>Risk of collapse of excavations</u>			
5	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	16
<u>Keeping excavations free of water.</u>			
6	Keeping excavations free of water.	Item	
<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.	m3	2
Carried Forward			R
EXTERNAL WORKS WATER TANKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward				R
	<u>Soil insecticide</u>			
8	To bottoms and sides of trenches, etc.	m2	24	
	<u>One layer of 250 micron green medium density waterproof sheeting sealed at laps with pressure sensitive tape in accordance with the manufacturer's instructions.</u>			
9	Under surface beds	m2	24	
	<u>15Mpa/19mm Concrete</u>			
10	Blinding	m3	1	
	<u>25Mpa/19mm Concrete</u>			
11	Bases	m3	6	
12	Platform surface beds cast in panels	m3	5	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
13	Platform surface beds	m2	24	
	<u>Finishing top surfaces of concrete smooth with a wood float</u>			
14	On top of bases	m2	5	
	<u>"Jojo" or equal approved SANS PVC water tanks</u>			
15	5 000 Litre plastic water tank fitted onto and secured to tank platforms	No	1	
16	10 000 Litre plastic water tank fitted onto and secured to tank platforms	No	3	
	<u>Galvanized medium normalized mild steel piping</u>			
17	25mm Pipes	m	60	
18	50mm Pipes	m	102	
Carried Forward				R
EXTERNAL WORKS WATER TANKS AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward				R
<u>Extra over galvanised mild steel water supply pipes for fittings:</u>				
19	25mm Fittings.	No	10	
20	50mm Elbows.	No	10	
21	50mm Union.	No	10	
22	50mm Reducing bush.	No	4	
<u>"Cobra Watertech" or other equal approved</u>				
23	15mm "Cobra Ref. 108LK" brass hose biptap.	No	4	
24	50mm Fullway gate valve	No	4	
<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>				
25	80 x 80mm x 6mm angle columns	t	1,49	
<u>Steel members and girth, bolted to steel</u>				
26	30 x 30mm x 6mm Flat-bar	t	0,19	
27	40 x 40mm x 5mm angle	t	0,19	
28	125 x 75mm x 8mm unequal angle	t	0,22	
29	125 x 50mm x 20 x 2mm Lipped channel	t	0,47	
<u>BOLTS,FASTENERS,ETC (LI)</u>				
30	High tensile bolts	t	0,50	
31	12mm Diameter L-shaped threaded anchor bolt 350mm girth embedded in top of concrete	No	16	
<u>ON METAL</u>				
Carried Forward				R
EXTERNAL WORKS WATER TANKS AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward			R
	<u>Undercoat and minimum 2 coat gloss enamel</u>		
32	Paint to structural steel	m	125
	<u>TESTING</u>		
	<u>Testing of water tanks</u>		
33	Testing for tank		Item
Carried Forward to Summary of Section No. 8			R
EXTERNAL WORKS			
WATER TANKS			
AES CONSULTING CC			
admin@aesconsulting.co.za			

Item No		Quantity	Rate	Amount
<u>SECTION NO. 8</u>				
<u>BILL NO. 3</u>				
<u>WATER FOUNTAINS</u>				
<u>Earthworks</u>				
<u>Excavation in compacted building platform not exceeding 2m deep</u>				
1	Trenches	m3	2	
<u>Extra over all excavations for carting away</u>				
2	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor "Labour Intensive"	m3	2	
<u>Compaction of surfaces</u>				
3	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	2	
<u>FILLING</u>				
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93 % Mod AASHTO density</u>				
4	Backfilling to trenches, holes, etc	m3	1	
<u>Concrete, etc</u>				
<u>25Mpa/19mm reinforced concrete</u>				
5	Wall	m3	1	
6	Slabs	m3	1	
Carried Forward				R
EXTERNAL WORKS STAND PIPES AES CONSULTING CC admin@aesconsulting.co.za				

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Item No		Quantity	Rate	Amount
	<u>SECTION NO.8</u>			
	<u>BILL NO. 4</u>			
	<u>SEPTIC TANKS, ETC.</u>			
	For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades			
	<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	40	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth exceeding 2m and not exceeding 4m deep</u>			
2	Holes	m3	88	
	<u>Extra over all excavations for carting away</u>			
3	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	32	
	<u>Risk of collapse of excavations</u>			
4	Sides of trench and hole excavations exceeding 1,5m deep and not exceeding not exceeding 3m deep	m2	58	
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>			
5	Backfilling to trenches, holes, etc	m3	7	
	Carried Forward		R	
	EXTERNAL WORKS SEPTIC TANK AND FRENCH DRAINS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
	<u>Keeping excavations free of water</u>		
6	Keeping excavations free of all water other than subterranean water	Item	
<u>REINFORCED CONCRETE</u>			
	<u>15MPa/19mm concrete</u>		
7	15Mpa in blinding	m3	1
	<u>25MPa/19mm concrete</u>		
8	25Mpa in base	m3	7
9	25Mpa in slab over septic tank	m3	4
10	Concrete haunch formed below pipes	m3	0,04
<u>CONCRETE SUNDRIES</u>			
	<u>Finishing top surfaces of concrete smooth with a steel trowel</u>		
11	Surface beds, slabs, etc to falls	m2	22
	<u>Permanent formwork to soffits</u>		
12	Slab over septic tank	m2	22
	<u>Smooth formwork to form</u>		
13	Opening not exceeding 1m girth through 170mm slab	No	2
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>			
	<u>Smooth formwork to sides</u>		
14	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	20
Carried Forward			R
EXTERNAL WORKS SEPTIC TANK AND FRENCH DRAINS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>REINFORCEMENT</u>			
<u>Fabric reinforcement</u>			
15	Type 888 fabric reinforcement in concrete surface beds, slabs, etc	m2	44
<u>MASONRY</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
16	One brick walls	m2	69
<u>Brickwork reinforcement</u>			
17	150mm Wide reinforcement built in horizontally	m	228
<u>Face bricks (purchase price of R5 000.00/1000 delivered to site excluding VAT) pointed with flush horizontal and vertical joints</u>			
18	Extra over brickwork for face brickwork in foundation	m2	16
<u>BRICKWORK SUNDRIES</u>			
19	Leave of form 450 x 150mm high opening through a one brick wall	No	2
20	Leave or form opening through one brickwall for pipe 110mm dia	No	3
<u>PLASTERING</u>			
<u>Watertight cement plaster on brickwork</u>			
21	On walls	m2	58
<u>Screed</u>			
22	On floors	m2	22
<u>Two coats approved epoxy coats</u>			
23	On walls and floors	m2	80
Carried Forward			R
EXTERNAL WORKS SEPTIC TANK AND FRENCH DRAINS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward				R
<u>PLUMBING AND DRAINAGE</u>				
	<u>uPVC pipes</u>			
24	110mm Pipes	m	45	
	<u>Extra over uPVC pipes for fittings</u>			
25	110mm Tee	No	2	
	<u>Cover, etc</u>			
26	600 x 600mm Type 2A cast iron single seal manhole cover and frame	No	4	
27	Lifting key for manhole cover	No	1	
<u>FRENCH DRAINS</u>				
<u>SITE CLEARANCE ETC</u>				
	<u>Site clearance</u>			
28	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	20	
<u>EXCAVATION, FILLING, ETC</u>				
	<u>Excavation in earth not exceeding 2m deep</u>			
29	Holes	m3	15	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
30	Soft rock	m3	1	
31	Hard rock	m3	1	
Carried Forward				R
EXTERNAL WORKS SEPTIC TANK AND FRENCH DRAINS AES CONSULTING CC admin@aesconsulting.co.za				

Brought Forward			R
	<u>Extra over all excavations for carting away</u>		
32	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	8
	<u>Risk of collapse of excavations</u>		
33	Sides of trench and hole excavations not exceeding 1,5m deep	m2	4
	<u>Keeping excavations free of water</u>		
34	Keeping excavations free of all water other than subterranean water		Item
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site (not compacted)</u>		
35	On top of french drain as soil cover	m3	7
	<u>FILTER FABRIC</u>		
	<u>"Kaytech Engineered Fabric" or similar approved laid in strict accordance to the manufacturer's instructions</u>		
36	"Kaymat U14" or equal approved around stone filling in sub-soil drain trenches	m2	20
	<u>20mm Graded stone filling or similar approved</u>		
37	In holes	m3	5
	<u>200 - 300mm Diameter clean washed stone filling or similar approved by engineer</u>		
38	In holes	m3	15
	<u>WATERPROOFING</u>		
Carried Forward			R
EXTERNAL WORKS SEPTIC TANK AND FRENCH DRAINS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
	<u>One layer of 250 micron "Tarkon USB Green" or equal approved waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>		
39	On top of pipes as protection of joints	m2	15
	<u>ROOF SHEETING</u>		
	<u>Roof sheeting</u>		
40	On top of french drain	m2	15
	<u>uPVC pipes</u>		
41	110mm pipes laid in and including trenches	m	15
42	160mm pipes laid in and including trenches	m	10
	<u>Extra over uPVC pipes for fittings</u>		
43	110mm End cap	No	4
44	110mm Bend	No	2
Carried Forward to Summary of Section No. 8			R
EXTERNAL WORKS			
SEPTIC TANK AND FRENCH DRAINS			
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Item No		Quantity	Rate	Amount
	<u>SECTION NO. 8</u>			
	<u>BILL NO. 5</u>			
	<u>WATER TANKS</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	62	
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
2	Trenches	m3	20	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
3	Soft rock	m3	5	
4	Hard rock	m3	2	
	<u>Extra over all excavations for carting away</u>			
5	Surplus material from excavations on site to a dumping site to be located by the contractor	m3	10	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavations not exceeding 1,5m deep	m2	23	
	<u>Keeping excavations free of water</u>			
7	Keeping excavations free of all water other than subterranean water	Item		
	Carried Forward		R	
	EXTERNAL WORKS WATER HARVESTING TANKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
	<u>Earth filling obtained from the excavations and /or prescribed stock piles on site including compacted to 93% Mod AASHTO density</u>		
8	Backfilling to trenches, holes, etc	m3	7
	<u>SOIL POISONING</u>		
	<u>Soil poisoning mixed in accordance to supplier's specifications</u>		
9	To bottoms and sides of trenches, etc.	m2	13
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>		
	<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>		
	<u>25MPa/19mm concrete</u>		
10	Strip footings	m3	9
11	Platform surface beds cast in panels	m3	3
	<u>FINISHING TOP SURFACE OF CONCRETE</u>		
	<u>Finishing top surfaces of concrete smooth with a wood float/steel trowel</u>		
12	Surface beds, slabs, etc (rainwater tanks)	m2	31
	<u>REINFORCEMENT</u>		
	<u>Fabric reinforcement</u>		
13	Type 295 fabric reinforcement in concrete surface beds, slabs, etc	m2	31
	Carried Forward		R
EXTERNAL WORKS WATER HARVESTING TANKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>TEST CUBES</u>			
14	Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	3
<u>BRICKWORK</u>			
<u>Brickwork of NFP bricks in class II mortar</u>			
15	One brick walls	m2	17
<u>BRICKWORK SUNDRIES</u>			
<u>Brickwork reinforcement</u>			
16	150mm Wide reinforcement built in horizontally	m	50
<u>FACE BRICKWORK</u>			
<u>Face bricks (Purchase price of R5 000.00/1000 VAT excl. delivered to site) pointed with recessed horizontal and vertical joints</u>			
17	Extra over brickwork for face brickwork	m2	23
<u>Brick-on-edge header course copings, sills, etc of face bricks (Purchase price R3 500.00/1000 VAT excl. delivered to site) pointed with recessed joints on all exposed faces</u>			
18	Coping on top of one brick wall	m	50
<u>WATERPROOFING</u>			
<u>One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
19	Under surface beds	m2	31
Carried Forward			R
EXTERNAL WORKS WATER HARVESTING TANKS AES CONSULTING CC admin@aesconsulting.co.za			

Brought Forward			R
<u>WATER SUPPLIES</u>			
<u>"Jojo" approved SANS PVC water tanks</u>			
20	2 500 Litre plastic water tank fitted onto and secured to tank platforms	No	5
<u>Galvanized medium normalized mild steel piping</u>			
21	25mm Pipes	m	10
<u>Extra over galvanised mild steel water supply pipes for fittings:</u>			
22	25mm Fittings.	No	10
23	15mm "Cobra Ref. 108LK" brass hose biptap.	No	5
Carried Forward to Summary of Section No. 8			R
EXTERNAL WORKS			
WATER HARVESTING TANKS			
AES CONSULTING CC			
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Item No		Quantity	Rate	Amount
	<u>SECTION NO. 8</u>			
	<u>BILL NO. 6</u>			
	<u>PAVED WALKWAYS</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	410	
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	410	
	<u>Open face excavation in earth over sloping site</u>			
3	Excavation in earth not exceeding 2m open face excavation to form platforms under parking areas etc and depositing excavated material over site, including haulage not exceeding 10m from perimeter of excavations exceeding 2m deep	m3	150	
	<u>Extra over all excavations for carting away</u>			
4	Surplus material from excavations and/stock piles on site to the dumping site to be located by the Contractor.	m3	150	
	<u>Earth filling supplied by the contractor under parking areas, roadways, etc</u>			
5	Sub-base course of G5 material in accordance with SABS 1200 DM, compacted to 93% Mod AASHTO density	m3	150	
	Carried Forward		R	
	EXTERNAL WORKS PAVED WALKWAYS AES CONSULTING CC admin@aesconsulting.co.za			

	Brought Forward			R
	<u>Compaction of surfaces</u>			
6	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	410	
	<u>Soil poisoning</u>			
7	Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasien 248,6 g/l and atrisien 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m ² on cleared ground	m2	410	
	<u>60mm Thick precast concrete DZZ interlocking heavy duty block paving of grey paving blocks in accordance with SANS 1058, laid to falls on and including 25mm thick sand layer with joints filled in with sand, compacted with a vibration compactor:</u>			
8	Paving to toilet areas etc to falls	m2	410	
9	Fig. 12 kerbs to sides of paving	m	615	
10	15Mpa/19mm unreinforced concrete in haunching	m3	1	
Carried Forward to Summary of Section No. 8				R
EXTERNAL WORKS				
PAVED WALKWAYS				
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Brought Forward			R
<u>Reinforced Concrete</u>			
8	25Mpa/19mm Mass concrete in V-shaped channel 2000mm wide x 75mm thick with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, with and including one layer of ref.193 mesh reinforcement, laid to falls in panels not exceeding 2,0m long with 12mm bitumen impregnated softboard movement joints with exposed edges raked out for a depth of 10mm and filled with bituminous compound including all necessary excavations and formwork	m	230
9	Extra for fair open end	No	25
10	Extra for fair stopped end	No	25
11	Extra for angle intersection	No	30
Carried Forward to Summary of Section No. 8			R
EXTERNAL WORKS			
STORMWATER CONTROL			
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Item No		Quantity	Rate	Amount
	<u>SECTION NO. 8</u>			
	<u>BILL NO. 8</u>			
	<u>FENCING</u>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	For preambles see "Specifications of materials and methods to be used - PW 371"			
	<u>Welded mesh fence</u>			
1	1800mm High welded mesh fencing formed of 2.5 x 50mm galvanized welded mesh in long lengths, with three strands of 1.6mm galvanized steel wire at 150mm centres to and including four strings of 2.5mm galvanized steel binding wire stringed through holes and secured to straining bolts or posts ,10mm Diameter galvanized straining eye bolt 300mm long with nut and washer sawn off and bent after straining, 3150mm high, 50mm diameter x 2.8mm round mild steel intermediates posts with cover cap,Corner post formed of 100mm diameter x 3mm thick x 3150mm overall length steel post and 50mm Diameter x 2.6mm steel stays.	m	60	
2	1800mm High and 900mm wide swing gate from 32mm diameter framework, all tube hot dipped galvanised after fabrication, with 50 x 50 x 2.5mm hot dipped galvanised welded mesh infill, fixed with heavy duty hinges to 100mm diameter x 3.5mm HDG corner posts, 2400mm long with standard type cap, 150 x 150 x 3mm base plate and casting into and including 500 x 500 x 600mm deep 20MPa concrete in ground, each corner post with off 32mm diameter x 2.5mm HDG stays at 45 degree angle, 50 x 50 x 2mm baseplate and casting into and including 300 x 300 x 300mm deep 20MPa concrete complete with all earthworks, trimmings and fixing	No	1	
	Carried Forward to Summary of Section No. 8		R	
	EXTERNAL WORKS			
	FENCING AROUND TANK STANDS			
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