

MAPITLULA PRIMARY SCHOOL

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION 1</u></p> <p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The JBCC Series 2000 Edition 4.1 Code 2101 March 2005 2005 edition prepared by the Joint Building Contracts Committee, shall be the agreement, amended as hereinafter described</p> <p>The Preliminaries for use with the JBCC Series 2000 Principal Building Agreement (May 2005 edition) prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated in these bills of quantities</p> <p>Contractors are referred to the above-mentioned documents for the full intent and meaning of each clause thereof</p> <p>These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the above-mentioned documents</p> <p>Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"</p> <p>Notwithstanding anything to the contrary contained in any of the contract documents including the Principal Building Agreement and the Preliminaries, the provision of the "Preliminaries" as hereinafter set forth shall prevail and shall take precedence</p> <p style="text-align: right;">Carried Forward</p>				
	<p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>PREAMBLES FOR TRADES</u></p> <p>The Model Preambles for Trades (1999 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claim arising from brevity of description of items fully described in the said Model Preambles for Trades will be entertained</p> <p>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> <p><u>GENERAL</u></p> <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> <p>The following legend can be used to identify quantity splits for measured items for the locations as defined below</p> <p>CLUSTER 05</p> <p>Driehoek Primary School</p> <p style="text-align: right;">Carried Forward</p>				
	<p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>				R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought Forward				
	<u>SECTION A - PRINCIPAL BUILDING AGREEMENT</u>				
	<u>Definitions (A1)</u>				
1	Definitions and interpretation (clause 1) F:..... V:..... T:.....	Item			
	<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			
	Carried Forward				R
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	Brought Forward				R
	<p>The principal agent shall:</p> <ul style="list-style-type: none"> to monitor and control progress and scheduling to monitor all contract conditions, and to coordinate the efforts of the employer's agents, to 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> <p>The principal agent reserves the right to attend and participate in all contractor/subcontractor's meetings, to invite other employer's agents to attend such meetings at his discretion and to converse and chair any such meetings if the contractor is derelict in his duty in arranging such meetings to the degree of frequency and comprehensiveness dictated in the opinion of the project manager by the circumstances and exigencies of the construction process</p>				
6	<p>Site representative (clause 6)</p> <p>F:..... V:..... T:.....</p>	Item			
7	<p>Compliance with regulations (clause 7)</p> <p>F:..... V:..... T:.....</p>	Item			
	Carried Forward				R
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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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		0	
13	NO CLAUSE	N/A		0	
14	Security (clause 14) F:..... V:..... T:.....	Item		0	
	Execution (A15-A23)	H3		0	
15	Preparation for and execution of the works (clause 15) F:..... V:..... T:.....	Item		1	
	Carried Forward				R
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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16	Access to the works (clause 16) F:..... V:..... T:.....	Item			
18	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			
20	Nominated subcontractors (clause 20) F:..... V:..... T:.....	Item			
21	Selected subcontractors (clause 21) F:..... V:..... T:.....	Item			
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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	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				
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>	H3			
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		0	
27	Latent defects liability period (clause 27) F:..... V:..... T:.....	Item		0	
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought Forward				R
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			
	Payment (A31 - A35)	H3			
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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	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:..... 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	Item			
35	Payment to other parties (clause 35) F:..... V:..... T:.....	Item			
	Carried Forward				R
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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	<u>Cancellation (A36-A39)</u>	H3			
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>	H3			
40	Dispute Settlement (clause 40) F:..... V:..... T:.....	Item			
	<u>Substitute Provisions (A41)</u>	H3			
41	State clauses (Clause 41) F:..... V:..... T:..... Information necessary for the completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder	Item			
	Carried Forward				R
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	<u>THE SCHEDULE</u>	H3			
	Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder				
42	Pre-tender information (clause 42)	Item			
	F:..... V:..... T:.....				
	<u>42.1 CONTRACTING AND OTHER PARTIES</u>	H3			
	42.1.1				
	Employer: As per information on the tender data				
	42.1.2 ☒				
	Principal Agent: As per the information on the Tender data				
	42.1.3 ☒				
	Architect: As per information on the tender data				
	42.1.4				
	Quantity Surveyor: As per information on the tender data				
	Structural : As per information on the tender data				
	42.1.5 Civil: As per information on the tender data			0	
	42.1.6			0	
	Electrical Engineer: As per information on the tender data				
	Carried Forward				R
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42.1.6	Mechanical Engineer: As per information on the tender data				
	<u>42.2 CONTRACT DETAILS</u>	H3			
42.2.1	Works Description: Construction of sanitation facilities				
42.2.2	Site Description: as per the information on the tender data				
42.2.3	Work or installations by direct contractors:				
	N/A				
42.2.4	This agreement is for a government contract where there are specific options that are applicable to a State organ only	Yes			
42.2.5	Date on which possession of the site is intended to be given:	UNKNOWN			
42.2.6	Period for the commencement of the works after the contractor takes possession				
	Carried Forward				R
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	<p>42.2.7 For the works as a whole. Intended date of practical completion and the penalty per calendar day</p> <p>3 months after contractual commencement date Date</p> <p style="text-align: right;">Penalty Amount</p> <p>The penalty per calendar day shall be 0.1% of the tenderd amount (inclusive of value added tax)</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: right;">Section 1</p> <p style="text-align: right;">.N/A..... Date</p> <p style="text-align: right;">R.N/A..... Penalty Amount</p> <p>42.2.9 The law applicable to this agreement shall be that of</p> <p>South Africa (country)</p> <p><u>42.3 INSURANCES</u></p> <p>42.3.1 Contract works insurance to be effected by:</p> <p style="text-align: right;">Contractor:</p> <p>For the Sum of R Contract Amount + 20.00 %</p> <p>With a deductible of - to be determined by the contractor</p> <p>42.3.2 Supplementary insurance is required</p> <p style="text-align: right;">No</p> <p style="text-align: right;">Carried Forward</p>				R
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	<p>42.3.3 Public liability insurance to be effected by:</p> <p style="text-align: right;">Contractor:</p> <p style="text-align: right;">For the Sum of R 2 500 000-00</p> <p style="text-align: center;">With a deductible of - to be determined by the contractor</p>				
	<u>42.4 DOCUMENTS</u>				
	<p>42.4.1 Waivers of contractors lien or right of continuing possession is required</p> <p style="text-align: right;">Yes</p>				
	<p>42.4.2 Number of construction document copies to be supplied to the contractor free of charge:</p> <p style="text-align: right;">3 Number of</p>				
	<p>42.4.3 Bills of Quantities/Lump sum document schedule of rates drawn up in accordance with:</p> <p>Standard System of Measuring Builders Work</p> <p>42.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within working days</p> <p>The priced bills of quantities must be handed in with the tender</p>				
	<p>42.4.5 BCC Engineering General Conditions are to be included in the contract documents:</p> <p style="text-align: right;">No</p>				
	Carried Forward				R
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	42.4.6 The contract value is to be adjusted using escalation adjustment indices				
	Yes				
	Where JBCC CPAP is to be used				
	Base Month September 2017				
	42.4.7 Details of changes made to the provision of JBCC standard documentation:				
	<u>SECTION B: PRELIMINARIES</u>				
	<u>Definitions and interpretation (B1)</u>				
43	Definition and interpretation (B1.1 - B1.4.6)	Item			
	F:..... V:..... T:.....				
	<u>Documents (B2)</u>				
44	Checking of documents (B2.1)	Item			
	F:..... V:..... T:.....				
45	Provisional bills of quantities (B2.2)	N/A			
	F:..... V:..... T:.....				
46	Availability of construction documentation (B2.3)	Item			
	F:..... V:..... T:.....				
47	Interests of agents (B2.4)	Item			
	F:..... V:..... T:.....				
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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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>	H3			
51	Geotechnical investigation (B3.2) F:..... V:..... T:.....	Item			
52	Inspection of the site (B3.3) F:..... V:..... T:.....	Item			
	Existing premises occupied (B3.4) F:..... V:..... T:.....				
	Previous work - dimensional accuracy (B3.5) F:..... V:..... T:.....				
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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	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			
	Management of contract (B4)	H3			
57	Inspection of adjoining properties etc (B3.11) F:..... V:..... T:.....	Item			
58	Management of the works (B4.1) F:..... V:..... T:.....	Item			R 443 037,21
	Carried Forward				R 443 037,21
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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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		0	
64	Workmanship samples (B5.2) F:..... V:..... T:.....	Item		0	
65	Shop drawings (B5.3) F:..... V:..... T:.....	Item		0	
66	Compliance with Manufacturer's Instructions (B5.4) F:..... V:..... T:.....	Item		0	
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought Forward				R
	<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			
	<u>Temporary services (B7)</u>	H3			
73	Location (B7.1) F:..... V:..... T:.....	Item			
	Carried Forward				R
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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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			
	<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			
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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81	Commissioning - Fuel, water and power (B9.3) F:..... V:..... T:..... Financial aspects (B10) 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:..... General (B11)	Item			
85	Protection of works (B11.1) F:..... V:..... T:.....	Item			
86	Protection/isolation of existing/sectionally occupied works (B11.2) F:..... V:..... T:.....	Item			
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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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			
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			
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12.1.9	Services - known (B3.7)				
12.1.10	Protection of trees (B3.9)				
	All trees should be protected and only on instruction of the Principal Agent may any trees be removed				
12.1.12	Enclosure of the works (B6.2)				
12.1.11	Inspection of adjoining properties (B3.11)				
12.1.13	Offices (B6.4.3)				
	An office for the clerk of works should be provided				
12.1.14	Main notice board (B6.5)				
	YES				
12.1.15	Subcontractors notice board (B6.6)				
	A notice board is required				
	No				
12.1.16	Water (B7.2)				
	Alternative Selected: A				
12.1.17	Electricity (B7.3)				
	Alternative selected: A				
12.1.18	Telecommunications (B7.4)				
12.1.19	Abblution facilities (B7.5)				
	Alternative selected: A				
	Carried Forward				R
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	12.1.20 Protection of existing/sectionally occupied works (B11.2)				
	12.1.21 Special attendance (B9.2)				
	Subcontractor (1) details:				
	N/A				
	12.1.22 Protection of the works (B11.1)				
	N/A				
	12.1.23 Disturbance (B11.5)				
	N/A				
	12.1.24 Environmental Disturbance (B11.6)				
	N/A				
	Post tender information (B12.2)				
	12.2.1 Payment of preliminaries				
	Alternative selected: B				
	12.2.2 Adjustment of preliminaries				
	Alternative selected: A				
	12.2.3 Additional agreed preliminaries items				
	N/A				
	Carried Forward				R
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
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	<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			
	Carried Forward				R
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought Forward				R
102	<p>The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instructions after consultation with the manufacturer's authorised representative</p> <p>Contract instructions</p> <p>F:..... V:..... T:.....</p> <p>Contract instructions issued on site are to be recorded in triplicate in a contract instruction book which is to be supplied and maintained on site by the contractor</p>	Item			
103	<p>Labour record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and descriptions of tradesmen and labourers employed by him and all subcontractors on the works each day of that week</p>	Item			
104	<p>Plant record</p> <p>F:..... V:..... T:.....</p> <p>At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools used on the works each day of that week</p>	Item			
105	<p>Guarantees</p> <p>F:..... V:..... T:.....</p>	Item			
	Carried Forward				R
	<p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought Forward				R
	<p>Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specified period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor. The principal agent shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement</p>				
106	Overtime	Item			
	F:..... V:..... T:.....				
	<p>Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised, in writing, prior to execution thereof, that costs for such overtime are to be borne by the employer</p>				
107	Co-operation of contractor for cost management	Item			
	F:..... V:..... T:.....				
	Carried Forward				R
	<p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	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	Occupational Health and Safety Specification	Item			
	F:..... V:..... T:.....				
	<p>Any Principal Contractor entering into a contract with The Developer must achieve an acceptable level of Occupational Health and Safety performance. Refer to "Project Specification" and "Safety, Health and Environmental Evaluation Questionnaire" The contractor to comply with all provisions of the above and to be enforced on all selected and or other sub-contractors, as no claim afterwards will be entertained</p>				
	<u>SUMMARY OF CATEGORIES</u>	H2			
	Category : Fixed R.....			0	
	Category : Value R.....				
	Category : Time R.....				
	Carried To Final Summary				R
	<p>Section No. 1 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>BILL NO. 2</u></p> <p><u>REFURBISHMENTS</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>View site</u></p> <p>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</p> <p><u>Explosives</u></p> <p>No explosives whatsoever may be used for demolition purposes unless otherwise stated</p> <p><u>General</u></p> <p>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</p> <p style="text-align: right;">Carried Forward</p>				
	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>				R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Brought Forward				R
	<p>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</p> <p>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 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>				
	Carried Forward				
	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	MD1				
	Bill No. 1				
	Cluster 05				
	Nemorango Consulting Engineers				
	<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	15		
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	15		
	<u>EXCAVATION,FILLING, ETC</u>				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	8		
4	For aprons thickening	m3	9		
	<u>Extra over trench and hole excavations in earth for excavation:</u>				
5	Soft rock	m3	12		
6	Hard rock	m3	6		
	<u>Extra over all excavations for carting away:</u>				
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	3		
	Carried Forward				

Brought Forward				
<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	8	
<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water	Item	1	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	8	
11	Backfilling to trenches, holes, etc.	m3	8	
<u>Compaction of surfaces</u>				
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	8	
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	14	
14	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	14	
Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Prescribed density tests on filling</u></p> <p>15 Modified AASHTO Density tests</p> <p><u>SOIL POISONING</u></p> <p><u>Soil insecticide</u></p> <p>16 Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.</p> <p>17 To bottom of concrete aprons</p> <p>18 To bottoms and sides of trenches, etc.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<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>					
25Mpa/19mm Concrete					
1	Strip footings	m3		3	
2	Ditto, but surface bed in pit	m3		3	
3	2Aprons cast in panels	m3		3	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m		3	
5	Thickening down apron on edge 110mm deep x 200mm wide	m		8	
<u>REINFORCED CONCRETE, ETC</u>					
<u>25Mpa/19mm Concrete</u>					
6	Slabs	m3		8	
<u>CONCRETE SUNDRIES</u>					
<u>Finishing top surfaces of concrete smooth with a wood float</u>					
7	Aprons and pavings to falls	m2		8	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>TEST CUBES</u>					
8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No		3	
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
9	Surface beds, slabs, etc.	m2		15	
<u>FORMWORK</u>					
<u>Rough formwork to sides:</u>					
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m		6	
<u>Permanent formwork to soffits:</u>					
11	Slabs propped up not exceeding 1.5m high	m2		6	
12	Leave or form 500mm diameter opening in top of floor slab	No		3	
<u>REINFORCEMENT</u>					
Mesh Reinforcement (measure nett)					
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2		15	
Carried Forward To Summary of Section No. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers <u>BILL NO.3</u> <u>MASONRY</u> <u>SUPPLEMENTARY PREAMBLES</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><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 Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p>SAMPLES Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><u>FOUNDATIONS</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></p> <p>1 One brick walls m2 45</p> <p>2 One brick walls in pit m2 30</p> <p>3 Half brick walls m2 12</p> <p><u>FACE BRICKWORK</u> <u>Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints</u></p> <p>4 Extra over brickwork for face brickwork in foundation m2 45</p> <p style="text-align: right;">Carried Forward</p>				
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
SUPERSTRUCTURE					
FACE BRICKWORK					
Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints					
5	Half brickwork for face brick walls pointed both sides	m2	45		
6	One brickwork for face brick walls pointed both sides	m2	43		
7	Extra over brickwork for face brickwork in beamfilling	m2	15		
8	Fair raking and cutting	m	12		
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>					
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	12		
10	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	12		
11	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	3		
<u>BRICKWORK SUNDRIES</u>					
<u>Brick reinforcement</u>					
12	75mm Wide reinforcement built in horizontally	m	63		
13	150mm Wide reinforcement built in horizontally	m	63		
<u>Turning pieces</u>					
14	220mm Wide turning piece to lintel etc	m	10		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Galvanised wire ties etc</u>					
15	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No		12	
<u>Prestressed fabricated lintels</u>					
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m		10	
<u>Ventillation bricks</u>					
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No		6	
Carried Forward To Summary of Section No. 2					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<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		40	
2	114 x 38mm Wall plates	m		35	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m		40	
<u>Sundries</u>					
4	Two coats creosote on sawn timbers	m2		30	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No		12	
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		15	
Carried Forward					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>DOORS, ETC.</u></p> <p><u>Wrought meranti doors hung to steel frames</u></p> <p>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)</p> <p><u>Solid flush doors with 3,2mm standard hardboard covering on both sides and with wrought hardwood concealed vertical edge strips hung to steel frames</u></p> <p>9 40mm Door 914 x 2032mm high</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.7</u></p> <p><u>IRONMONGERY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CATCHES, CABIN, HOOKS, ETC</u></p> <p><u>Approved</u></p> <p>1 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged</p> <p><u>LOCKS</u></p> <p><u>Approved</u></p> <p>2 Three lever mortice lockset</p> <p>3 Indicator lockset</p> <p><u>DOORSTOPS</u></p> <p><u>Approved</u></p> <p>4 38mm Diameter rubber door stop plugged</p> <p><u>LETTERS, NAMEPLATES, ETC.</u></p> <p><u>"Union" or similar approved</u></p> <p>5 75 x 150mm Natural anodised aluminium plate with male or female or disabled symbol</p>				
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Hot-dipped double spelter galvanised mild steel grab rails formed of 32mm outside diameter x 1,6mm round section rails and 75mm diameter x 3mm flat section fixing flanges each three times holed and bolted to walls with M8 x 50mm expansion bolts</u></p> <p>6 32mm Grab rail 700mm long with two 206mm return ends bolted</p> <p>7 32mm Cranked grab rail 300 x 300 x 300mm with two 80mm return ends bolted</p> <p><u>BATHROOM FITTINGS</u></p> <p>"Kimberley-Clark" or Similar</p> <p>8 "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder</p> <p><u>Stainless steel</u></p> <p>9 Stainless steel mirror size 350 x 400mm plugged to wall with chrome plated screws.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.8</u></p> <p><u>METALWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Single rebated frames suitable for half brick walls</u></p> <p>1 Frame for door 813 x 2032mm high</p> <p><u>1,6mm Double rebated frames suitable for one brickwalls</u></p> <p>2 Frame for door 900 x 2032mm high</p> <p><u>STEEL WINDOWS, DOORS, ETC</u></p> <p>3 Window type NE1, 533 x 654mm high including burglar bars</p> <p>4 Window type NE 7,1022 x 654mm high including burglar bars</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Steel gates and frames</u></p> <p>5 Purpose made square hallow section mild steel security gate, size 813 x 2032mm High</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>2</p> <p>1</p> <p>2</p> <p>1</p> <p>1</p>		
	<p style="text-align: right;">Carried Forward</p>				

Section No. 2
PRELIMINARIES AND GENERAL
Bill No. 2
Cluster 05
Nemorango Consulting Engineers

Brought Forward

BUDGETARY ALLOWANCES

The items described hereunder cover work which is not fully defined at tender stage and is intended to be executed by the contractor at rates to be agreed with the contractor in accordance with clause B1.9 of the Preliminaries at the time the work is defined. The amounts shown shall be used as directed by the Representative/Agent and shall be deducted in whole or in part if not required.

7 Protective Steel Cage to female SHE-Bins

No

1

Carried Forward To Summary Of Section No. 2

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO. 09</u></p> <p><u>IN SITU FINISHES</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CEMENT SCREEDS TO CONCRETE</u></p> <p><u>Screeds to steel trowelled, on concrete:</u></p> <p>1 30mm thick on floors</p> <p><u>FLOOR AND WALLS SEALERS</u></p> <p><u>Minimum two coats approved epoxy coat:</u></p> <p>3 On screed</p> <p>4 On internal textured plaster walls and floors in pit</p> <p><u>EPOXY</u></p> <p>5 Epoxy finish to floors</p>				
	<p>Carried Forward To Summary Of Section No. 2</p>				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>SUPPLEMENTARY PREAMBLES</u>				
<u>FITTINGS</u>				
1	19mm chrome plated push button taps to wash troughs	No	2	
<u>"Vaal"</u>				
2	510 x 405mm "Daisy" 7061 or hibiscus 7050 white vitreous chain rounded lavatory basin with two tap holes supported on and oncl two bolts	No	2	
3	610 x 385mm white vitreous chain wall mounted lavatera urinal 704001 with top inlet complete with 38mm c.p domical grating 8787 cp spreader 8543 and two hager brackets 8127	No	1	
4	"Hibiscus" 772602 or white vitreous chain semi-close-coupled 90 degrees outlet open rim washdown pan 774000 and matching 9 litre cistern 710034 complete with lid, fitments and flush pipe elbow and conversion bend 710044 and deluxe toilet seat	No	1	
5	vitreous chain protea paraplegic 90 degrees outlet pan 7502 and matching 9 litre cistern 710536 complete with lid, fitments tc and and deluxe double flap toilet seat and purpose made c.p side flush lever mounted on wall adjacent to cistern	No	1	
<u>Traps etc</u>				
<u>Marley</u>				
6	40mm flexi butyl rubber trap with reseal P trap	No	2	
7	40 x 50mm deep seal combination P or S trap	No	2	
<u>"Cobra Watertech"</u>				
8	Cobra ref 206-20 bib trap	No	2	
9	cobra ref 111-15 pillar tap	No	2	
10	cobra ref 365/40 CP bottle trap	No	2	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
11	32mm 303 CP basin waste union and 309CP anti-theft plug	No	2		
12	15mm 126-15CP stopcock	No	2		
13	cobra ref 232/350 angle regulating valve	No	2		
14	Cobra ref FJ6.000 Fluushmaster junior exposed top entry urinal flushvalve complete with cobra ref FJT5.4 Connector and spray rose	No	1		
<u>New Items</u>					
<u>SANITARY PLUMBING</u>					
<u>uPVC soil and vent pipes</u>					
15	50mm Pipes	No	5		
16	110mm Pipes	No	14		
17	110mm Pipes laid in and including trenches not exceeding 1m deep	No	7		
<u>Extra over uPVC soil and vent pipes for fittings</u>					
18	50mm Bend	No	2		
19	110mm Bend	No	2		
20	50mm Junction	No	2		
21	110mm Junction	No	2		
22	110 x 50mm reducing junction	No	2		
23	110mm double junction	No	2		
24	50mm Access bend	No	2		
25	110mm Access bend	No	2		
26	110mm Pan connector	No	2		
27	110mm GI Two way vent valve	No	2		
<u>Pre-cast concrete gulleys</u>					
28	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	2		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
29	110mm Air vent valve	No		2	
30	250mm "Whirly Bird) Air Vent	No		2	
<u>Sundries</u>					
31	Extra over excavation for pipe trenches chambers etc for excavation in soft rock	m3		1	
32	Extra over excavation for pipe trenches chambers etc for excavation in hard rock	m3		1	
33	110mm cast iron ABC cleaning eye	No		2	
34	Testing drainage pipe system	item			
<u>WATER SUPPLIES</u>					
<u>Class 6 HDPE type IV pipes:</u>					
35	32mm Pipes laid in and including trenches not exceeding 1m deep	m		10	
<u>Extra over Class 10 HDPE type IV pipes for "Plasson" fittings:</u>					
36	32mm Reducer	No		2	
37	50mm pipes	m		20	
38	50mm fittings	No.		8	
39	32mm Bend	No		2	
40	32mm Threaded adaptor	No		2	
41	32mm Tee	No		2	
<u>Galvanised steel pipes</u>					
42	25mm Pipes chased into brick walls	m		12	
43	15mm Pipes chased into wall	m		12	
<u>Extra over galvanised steel pipes for steel fittings</u>					
44	25mm Fittings	No		2	
45	15mm fittings	No		8	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Class "O" copper pipes</u>					
46	15mm Pipes	m		5	
47	15mm Fittings	No		2	
<u>RAINWATER DISPOSAL</u>					
<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>					
48	125 x 100mm Seamless eaves gutters with beaded front edge	m		6	
49	Extra over eaves gutter for stopped end	No		6	
50	Extra over eaves gutter for angle	No		6	
51	Extra over eaves gutter for outlet for 100mm diameter pipe	No		6	
52	100mm Diameter rainwater pipes	m		6	
53	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No		6	
54	Extra over rainwater pipe for shoe	No		6	
TESTING					
55	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect	Item		1	
Carried Forward To Summary Of Section No. 2					

Section No. 2
PRELIMINARIES AND GENERAL
Bill No. 2
Cluster 05
Nemorango Consulting Engineers

BILL NO. 11

GLAZING

SUPPLEMENTARY PREAMBLES

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

GLAZING TO STEEL WITH PUTTY

4mm rough class glass

1 Panes not exceeding 0,1 m2

m2

6

Carried Forward To Summary Of Section No. 2

<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p>			
<p><u>BILL NO. 13</u></p>			
<p><u>PAINTWORK</u></p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p>For preambles see "Specifications of materials and methods to be used - PW 371"</p>			
<p><u>ON FIBRE-CEMENT</u></p>			
<p>Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint</p>			
1	On fascias and barge boards	m2	8
<p><u>ON WOOD</u></p>			
<p>Undercoat and minimum 2 coat gloss enamel</p>			
2	On doors (Internal)	m2	4
3	On doors (External)	m2	4
<p><u>ON METAL</u></p>			
<p>Undercoat and minimum 2 coat gloss enamel</p>			
4	On door frames	m2	2
5	On gates (Measured over the full flat area of both sides)	m2	2
6	On gutters and down pipes	m	10
<p><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></p>			
7	On windows with burglar bars	m2	1
<p>Carried Forward To Summary Of Section No. 2</p>			

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
Section No. 2 BUILDING WORKS <u>SECTION SUMMARY-BUILDING WORKS</u>				
1 EARTHWORKS			R	-
2 CONCRETE,FORMWORK AND REINFORCEMENT			R	-
3 MASONRY			R	-
4 WATERPROOFING			R	-
5 ROOF COVERINGS			R	-
6 CARPENTRY AND JOINERY			R	-
7 IRONMONGERY			R	-
8 METALWORK			R	-
9 IN SITU FINISHES			R	-
10 PLUMBING AND DRAINAGE			R	-
11 GLAZING			R	-
12 PAINTWORK			R	-
Carried Forward To Summary Of Section No. 2				R -

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	FD2				
	Bill No. 1 Cluster 05 Nemorango Consulting Engineers				
	<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	15		
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	15		
	<u>EXCAVATION,FILLING, ETC</u>				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	8		
4	For aprons thickening	m3	9		
	<u>Extra over trench and hole excavations in earth for excavation:</u>				
5	Soft rock	m3	12		
6	Hard rock	m3	6		
	<u>Extra over all excavations for carting away:</u>				
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	3		
	Carried Forward				

Brought Forward				
<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	8	
<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water	Item	1	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	8	
11	Backfilling to trenches, holes, etc.	m3	8	
<u>Compaction of surfaces</u>				
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	8	
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	14	
14	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	14	
Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Prescribed density tests on filling</u></p> <p>15 Modified AASHTO Density tests</p> <p><u>SOIL POISONING</u></p> <p><u>Soil insecticide</u></p> <p>16 Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.</p> <p>17 To bottom of concrete aprons</p> <p>18 To bottoms and sides of trenches, etc.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<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>					
25Mpa/19mm Concrete					
1	Strip footings	m3		3	
2	Ditto, but surface bed in pit	m3		3	
3	2Aprons cast in panels	m3		3	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m		3	
5	Thickening down apron on edge 110mm deep x 200mm wide	m		8	
<u>REINFORCED CONCRETE, ETC</u>					
<u>25Mpa/19mm Concrete</u>					
6	Slabs	m3		8	
<u>CONCRETE SUNDRIES</u>					
<u>Finishing top surfaces of concrete smooth with a wood float</u>					
7	Aprons and pavings to falls	m2		8	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>TEST CUBES</u>					
8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No		3	
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
9	Surface beds, slabs, etc.	m2		15	
<u>FORMWORK</u>					
<u>Rough formwork to sides:</u>					
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m		6	
<u>Permanent formwork to soffits:</u>					
11	Slabs propped up not exceeding 1.5m high	m2		6	
12	Leave or form 500mm diameter opening in top of floor slab	No		3	
<u>REINFORCEMENT</u>					
Mesh Reinforcement (measure nett)					
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2		15	
Carried Forward To Summary of Section No. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers <u>BILL NO.3</u> <u>MASONRY</u> <u>SUPPLEMENTARY PREAMBLES</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><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 Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p>SAMPLES Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><u>FOUNDATIONS</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></p> <p>1 One brick walls m2 45</p> <p>2 One brick walls in pit m2 30</p> <p>3 Half brick walls m2 12</p> <p><u>FACE BRICKWORK</u> <u>Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints</u></p> <p>4 Extra over brickwork for face brickwork in foundation m2 45</p> <p style="text-align: right;">Carried Forward</p>				
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
	Brought Forward			
SUPERSTRUCTURE				
FACE BRICKWORK				
Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints				
5 Half brickwork for face brick walls pointed both sides	m2	45		
6 One brickwork for face brick walls pointed both sides	m2	43		
7 Extra over brickwork for face brickwork in beamfilling	m2	15		
8 Fair raking and cutting	m	12		
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
9 Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	12		
10 Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	12		
11 Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	3		
<u>BRICKWORK SUNDRIES</u>				
<u>Brick reinforcement</u>				
12 75mm Wide reinforcement built in horizontally	m	63		
13 150mm Wide reinforcement built in horizontally	m	63		
<u>Turning pieces</u>				
14 220mm Wide turning piece to lintel etc	m	10		
	Carried Forward			

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Galvanised wire ties etc</u>					
15	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No		12	
<u>Prestressed fabricated lintels</u>					
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m		10	
<u>Ventillation bricks</u>					
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No		6	
Carried Forward To Summary of Section No. 2					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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	40	
2	114 x 38mm Wall plates	m	35	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	40	
<u>Sundries</u>				
4	Two coats creosote on sawn timbers	m2	30	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	12	
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	15	
Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>DOORS, ETC.</u></p> <p><u>Wrought meranti doors hung to steel frames</u></p> <p>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)</p> <p><u>Solid flush doors with 3,2mm standard hardboard covering on both sides and with wrought hardwood concealed vertical edge strips hung to steel frames</u></p> <p>9 40mm Door 914 x 2032mm high</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.7</u></p> <p><u>IRONMONGERY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CATCHES, CABIN, HOOKS, ETC</u></p> <p><u>Approved</u></p> <p>1 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged</p> <p><u>LOCKS</u></p> <p><u>Approved</u></p> <p>2 Three lever mortice lockset</p> <p>3 Indicator lockset</p> <p><u>DOORSTOPS</u></p> <p><u>Approved</u></p> <p>4 38mm Diameter rubber door stop plugged</p> <p><u>LETTERS, NAMEPLATES, ETC.</u></p> <p><u>"Union" or similar approved</u></p> <p>5 75 x 150mm Natural anodised aluminium plate with male or female or disabled symbol</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>3</p> <p>4</p> <p>3</p> <p>1</p> <p>5</p>		
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Hot-dipped double spelter galvanised mild steel grab rails formed of 32mm outside diameter x 1,6mm round section rails and 75mm diameter x 3mm flat section fixing flanges each three times holed and bolted to walls with M8 x 50mm expansion bolts</u></p> <p>6 32mm Grab rail 700mm long with two 206mm return ends bolted</p> <p>7 32mm Cranked grab rail 300 x 300 x 300mm with two 80mm return ends bolted</p> <p><u>BATHROOM FITTINGS</u></p> <p>"Kimberley-Clark" or Similar</p> <p>8 "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder</p> <p><u>Stainless steel</u></p> <p>9 Stainless steel mirror size 350 x 400mm plugged to wall with chrome plated screws.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.8</u></p> <p><u>METALWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Single rebated frames suitable for half brick walls</u></p> <p>1 Frame for door 813 x 2032mm high</p> <p><u>1,6mm Double rebated frames suitable for one brickwalls</u></p> <p>2 Frame for door 900 x 2032mm high</p> <p><u>STEEL WINDOWS, DOORS, ETC</u></p> <p>3 Window type NE1, 533 x 654mm high including burglar bars</p> <p>4 Window type NE 7,1022 x 654mm high including burglar bars</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Steel gates and frames</u></p> <p>5 Purpose made square hallow section mild steel security gate, size 813 x 2032mm High</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>3</p> <p>1</p> <p>3</p> <p>1</p> <p>1</p>		
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>BUDGETARY ALLOWANCES</u></p> <p><u>The items described hereunder cover work which is not fully defined at tender stage and is intended to be executed by the contractor at rates to be agreed with the contractor in accordance with clause B1.9 of the Preliminaries at the time the work is defined. The amounts shown shall be used as directed by the Representative/Agent and shall be deducted in whole or in part if not required.</u></p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
7	Protective Steel Cage to female SHE-Bins	No	3		
	Carried Forward To Summary Of Section No. 2				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO. 09</u></p> <p><u>IN SITU FINISHES</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CEMENT SCREEDS TO CONCRETE</u></p> <p><u>Screeds to steel trowelled, on concrete:</u></p> <p>1 30mm thick on floors</p> <p><u>FLOOR AND WALLS SEALERS</u></p> <p><u>Minimum two coats approved epoxy coat:</u></p> <p>3 On screed</p> <p>4 On internal textured plaster walls and floors in pit</p> <p><u>EPOXY</u></p> <p>5 Epoxy finish to floors</p>				
	<p>Carried Forward To Summary Of Section No. 2</p>				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>SUPPLEMENTARY PREAMBLES</u>				
<u>FITTINGS</u>				
1	19mm chrome plated push button taps to wash troughs	No	2	
<u>"Vaal"</u>				
2	510 x 405mm "Daisy" 7061 or hibiscus 7050 white vitreous chain rounded lavatory basin with two tap holes supported on and oncl two bolts	No	2	
3	610 x 385mm white vitreous chain wall mounted lavatera urinal 704001 with top inlet complete with 38mm c.p domical grating 8787 cp spreader 8543 and two hager brackets 8127	No	0	
4	"Hibiscus" 772602 or white vitreous chain semi-close-coupled 90 degrees outlet open rim washdown pan 774000 and matching 9 litre cistern 710034 complete with lid, fitments and flush pipe elbow and conversion bend 710044 and deluxe toilet seat	No	2	
5	vitreous chain protea paraplegic 90 degrees outlet pan 7502 and matching 9 litre cistern 710536 complete with lid, fitments tc and and deluxe double flap toilet seat and purpose made c.p side flush lever mounted on wall adjacent to cistern	No	1	
<u>Traps etc</u>				
<u>Marley</u>				
6	40mm flexi butyl rubber trap with reseal P trap	No	3	
7	40 x 50mm deep seal combination P or S trap	No	3	
<u>"Cobra Watertech"</u>				
8	Cobra ref 206-20 bib trap	No	3	
9	cobra ref 111-15 pillar tap	No	3	
10	cobra ref 365/40 CP bottle trap	No	3	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
11	32mm 303 CP basin waste union and 309CP anti-theft plug	No	3		
12	15mm 126-15CP stopcock	No	3		
13	cobra ref 232/350 angle regulating valve	No	3		
14	Cobra ref FJ6.000 Fluushmaster junior exposed top entry urinal flushvalve complete with cobra ref FJT5.4 Connector and spray rose	No	0		
<u>New Items</u>					
<u>SANITARY PLUMBING</u>					
<u>uPVC soil and vent pipes</u>					
15	50mm Pipes	No	10		
16	110mm Pipes	No	25		
17	110mm Pipes laid in and including trenches not exceeding 1m deep	No	14		
<u>Extra over uPVC soil and vent pipes for fittings</u>					
18	50mm Bend	No	3		
19	110mm Bend	No	3		
20	50mm Junction	No	3		
21	110mm Junction	No	3		
22	110 x 50mm reducing junction	No	3		
23	110mm double junction	No	3		
24	50mm Access bend	No	3		
25	110mm Access bend	No	3		
26	110mm Pan connector	No	3		
27	110mm GI Two way vent valve	No	3		
<u>Pre-cast concrete gulleys</u>					
28	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	3		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
29	110mm Air vent valve	No		3	
30	250mm "Whirly Bird) Air Vent	No		2	
<u>Sundries</u>					
31	Extra over excavation for pipe trenches chambers etc for excavation in soft rock	m3		2	
32	Extra over excavation for pipe trenches chambers etc for excavation in hard rock	m3		2	
33	110mm cast iron ABC cleaning eye	No		3	
34	Testing drainage pipe system	item			
<u>WATER SUPPLIES</u>					
<u>Class 6 HDPE type IV pipes:</u>					
35	32mm Pipes laid in and including trenches not exceeding 1m deep	m		12	
<u>Extra over Class 10 HDPE type IV pipes for "Plasson" fittings:</u>					
36	32mm Reducer	No		3	
37	50mm pipes	m		32	
38	50mm fittings	No.		14	
39	32mm Bend	No		3	
40	32mm Threaded adaptor	No		3	
41	32mm Tee	No		3	
<u>Galvanised steel pipes</u>					
42	25mm Pipes chased into brick walls	m		22	
43	15mm Pipes chased into wall	m		22	
<u>Extra over galvanised steel pipes for steel fittings</u>					
44	25mm Fittings	No		3	
45	15mm fittings	No		12	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Class "O" copper pipes</u>					
46	15mm Pipes	m		7	
47	15mm Fittings	No		3	
<u>RAINWATER DISPOSAL</u>					
<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>					
48	125 x 100mm Seamless eaves gutters with beaded front edge	m		8	
49	Extra over eaves gutter for stopped end	No		8	
50	Extra over eaves gutter for angle	No		8	
51	Extra over eaves gutter for outlet for 100mm diameter pipe	No		8	
52	100mm Diameter rainwater pipes	m		8	
53	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No		8	
54	Extra over rainwater pipe for shoe	No		8	
TESTING					
55	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect	Item		1	
Carried Forward To Summary Of Section No. 2					

Section No. 2
PRELIMINARIES AND GENERAL
Bill No. 2
Cluster 05
Nemorango Consulting Engineers

BILL NO. 11

GLAZING

SUPPLEMENTARY PREAMBLES

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

GLAZING TO STEEL WITH PUTTY

4mm rough class glass

1 Panes not exceeding 0,1 m2

m2

11

Carried Forward To Summary Of Section No. 2

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<u>BILL NO. 13</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>					
Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint					
1	On fascias and barge boards	m2	14		
<u>ON WOOD</u>					
Undercoat and minimum 2 coat gloss enamel					
2	On doors (Internal)	m2	8		
3	On doors (External)	m2	8		
<u>ON METAL</u>					
Undercoat and minimum 2 coat gloss enamel					
4	On door frames	m2	5		
5	On gates (Measured over the full flat area of both sides)	m2	5		
6	On gutters and down pipes	m	17		
<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. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p>Section No. 2 BUILDING WORKS</p> <p><u>SECTION SUMMARY-BUILDING WORKS</u></p>				
1	EARTHWORKS			R	-
2	CONCRETE,FORMWORK AND REINFORCEMENT			R	-
3	MASONRY			R	-
4	WATERPROOFING			R	-
5	ROOF COVERINGS			R	-
6	CARPENTRY AND JOINERY			R	-
7	IRONMONGERY			R	-
8	METALWORK			R	-
9	IN SITU FINISHES			R	-
10	PLUMBING AND DRAINAGE			R	-
11	GLAZING			R	-
12	PAINTWORK			R	-
	Carried Forward To Summary Of Section No. 2			R	-

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	GRMD1				
	Bill No. 1 Cluster 05 Nemorango Consulting Engineers				
	<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	15		
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	15		
	<u>EXCAVATION,FILLING, ETC</u>				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	8		
4	For aprons thickening	m3	9		
	<u>Extra over trench and hole excavations in earth for excavation:</u>				
5	Soft rock	m3	12		
6	Hard rock	m3	6		
	<u>Extra over all excavations for carting away:</u>				
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	3		
	Carried Forward				

Brought Forward				
<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	8	
<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water	Item	1	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	8	
11	Backfilling to trenches, holes, etc.	m3	8	
<u>Compaction of surfaces</u>				
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	8	
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	14	
14	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	14	
Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Prescribed density tests on filling</u></p> <p>15 Modified AASHTO Density tests</p> <p><u>SOIL POISONING</u></p> <p><u>Soil insecticide</u></p> <p>16 Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.</p> <p>17 To bottom of concrete aprons</p> <p>18 To bottoms and sides of trenches, etc.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<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>					
25Mpa/19mm Concrete					
1	Strip footings	m3		3	
2	Ditto, but surface bed in pit	m3		3	
3	2Aprons cast in panels	m3		3	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m		3	
5	Thickening down apron on edge 110mm deep x 200mm wide	m		8	
<u>REINFORCED CONCRETE, ETC</u>					
<u>25Mpa/19mm Concrete</u>					
6	Slabs	m3		8	
<u>CONCRETE SUNDRIES</u>					
<u>Finishing top surfaces of concrete smooth with a wood float</u>					
7	Aprons and pavings to falls	m2		8	
Carried Forward					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>TEST CUBES</u></p> <p>8 Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.</p> <p><u>Finishing top surfaces of concrete smooth with a steel trowel</u></p> <p>9 Surface beds, slabs, etc.</p> <p><u>FORMWORK</u></p> <p><u>Rough formwork to sides:</u></p> <p>10 Edges, risers, ends and reveals not exceeding 300mm high or wide</p> <p><u>Permanent formwork to soffits:</u></p> <p>11 Slabs propped up not exceeding 1.5m high</p> <p>12 Leave or form 500mm diameter opening in top of floor slab</p> <p><u>REINFORCEMENT</u></p> <p>Mesh Reinforcement (measure nett)</p> <p>13 Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers <u>BILL NO.3</u> <u>MASONRY</u> <u>SUPPLEMENTARY PREAMBLES</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><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 Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p>SAMPLES Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><u>FOUNDATIONS</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></p> <p>1 One brick walls m2 45</p> <p>2 One brick walls in pit m2 30</p> <p>3 Half brick walls m2 12</p> <p><u>FACE BRICKWORK</u> <u>Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints</u></p> <p>4 Extra over brickwork for face brickwork in foundation m2 45</p> <p style="text-align: right;">Carried Forward</p>				
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
Brought Forward				
SUPERSTRUCTURE				
FACE BRICKWORK				
Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints				
5 Half brickwork for face brick walls pointed both sides	m2	45		
6 One brickwork for face brick walls pointed both sides	m2	43		
7 Extra over brickwork for face brickwork in beamfilling	m2	15		
8 Fair raking and cutting	m	12		
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
9 Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	12		
10 Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	12		
11 Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	3		
<u>BRICKWORK SUNDRIES</u>				
<u>Brick reinforcement</u>				
12 75mm Wide reinforcement built in horizontally	m	63		
13 150mm Wide reinforcement built in horizontally	m	63		
<u>Turning pieces</u>				
14 220mm Wide turning piece to lintel etc	m	10		
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Galvanised wire ties etc</u>					
15	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No		12	
<u>Prestressed fabricated lintels</u>					
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m		10	
<u>Ventillation bricks</u>					
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No		6	
Carried Forward To Summary of Section No. 2					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<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		40	
2	114 x 38mm Wall plates	m		35	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m		40	
<u>Sundries</u>					
4	Two coats creosote on sawn timbers	m2		30	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No		12	
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		15	
Carried Forward					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>DOORS, ETC.</u></p> <p><u>Wrought meranti doors hung to steel frames</u></p> <p>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)</p> <p><u>Solid flush doors with 3,2mm standard hardboard covering on both sides and with wrought hardwood concealed vertical edge strips hung to steel frames</u></p> <p>9 40mm Door 914 x 2032mm high</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.7</u></p> <p><u>IRONMONGERY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CATCHES, CABIN, HOOKS, ETC</u></p> <p><u>Approved</u></p> <p>1 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged</p> <p><u>LOCKS</u></p> <p><u>Approved</u></p> <p>2 Three lever mortice lockset</p> <p>3 Indicator lockset</p> <p><u>DOORSTOPS</u></p> <p><u>Approved</u></p> <p>4 38mm Diameter rubber door stop plugged</p> <p><u>LETTERS, NAMEPLATES, ETC.</u></p> <p><u>"Union" or similar approved</u></p> <p>5 75 x 150mm Natural anodised aluminium plate with male or female or disabled symbol</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>2</p> <p>3</p> <p>2</p> <p>1</p> <p>5</p>		
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Hot-dipped double spelter galvanised mild steel grab rails formed of 32mm outside diameter x 1,6mm round section rails and 75mm diameter x 3mm flat section fixing flanges each three times holed and bolted to walls with M8 x 50mm expansion bolts</u></p> <p>6 32mm Grab rail 700mm long with two 206mm return ends bolted</p> <p>7 32mm Cranked grab rail 300 x 300 x 300mm with two 80mm return ends bolted</p> <p><u>BATHROOM FITTINGS</u></p> <p>"Kimberley-Clark" or Similar</p> <p>8 "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder</p> <p><u>Stainless steel</u></p> <p>9 Stainless steel mirror size 350 x 400mm plugged to wall with chrome plated screws.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.8</u></p> <p><u>METALWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Single rebated frames suitable for half brick walls</u></p> <p>1 Frame for door 813 x 2032mm high</p> <p><u>1,6mm Double rebated frames suitable for one brickwalls</u></p> <p>2 Frame for door 900 x 2032mm high</p> <p><u>STEEL WINDOWS, DOORS, ETC</u></p> <p>3 Window type NE1, 533 x 654mm high including burglar bars</p> <p>4 Window type NE 7,1022 x 654mm high including burglar bars</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Steel gates and frames</u></p> <p>5 Purpose made square hallow section mild steel security gate, size 813 x 2032mm High</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>2</p> <p>1</p> <p>2</p> <p>1</p> <p>1</p>		
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>BUDGETARY ALLOWANCES</u></p> <p><u>The items described hereunder cover work which is not fully defined at tender stage and is intended to be executed by the contractor at rates to be agreed with the contractor in accordance with clause B1.9 of the Preliminaries at the time the work is defined. The amounts shown shall be used as directed by the Representative/Agent and shall be deducted in whole or in part if not required.</u></p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
7	Protective Steel Cage to female SHE-Bins	No		1	
	Carried Forward To Summary Of Section No. 2				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO. 09</u></p> <p><u>IN SITU FINISHES</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CEMENT SCREEDS TO CONCRETE</u></p> <p><u>Screeds to steel trowelled, on concrete:</u></p> <p>1 30mm thick on floors</p> <p><u>FLOOR AND WALLS SEALERS</u></p> <p><u>Minimum two coats approved epoxy coat:</u></p> <p>3 On screed</p> <p>4 On internal textured plaster walls and floors in pit</p> <p><u>EPOXY</u></p> <p>5 Epoxy finish to floors</p>				
	<p>Carried Forward To Summary Of Section No. 2</p>				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>SUPPLEMENTARY PREAMBLES</u>				
<u>FITTINGS</u>				
1	19mm chrome plated push button taps to wash troughs	No	2	
<u>"Vaal"</u>				
2	510 x 405mm "Daisy" 7061 or hibiscus 7050 white vitreous chain rounded lavatory basin with two tap holes supported on and oncl two bolts	No	2	
3	610 x 385mm white vitreous chain wall mounted lavatera urinal 704001 with top inlet complete with 38mm c.p domical grating 8787 cp spreader 8543 and two hager brackets 8127	No	1	
4	"Hibiscus" 772602 or white vitreous chain semi-close-coupled 90 degrees outlet open rim washdown pan 774000 and matching 9 litre cistern 710034 complete with lid, fitments and flush pipe elbow and conversion bend 710044 and deluxe toilet seat	No	1	
5	vitreous chain protea paraplegic 90 degrees outlet pan 7502 and matching 9 litre cistern 710536 complete with lid, fitments tc and and deluxe double flap toilet seat and purpose made c.p side flush lever mounted on wall adjacent to cistern	No	1	
<u>Traps etc</u>				
<u>Marley</u>				
6	40mm flexi butyl rubber trap with reseal P trap	No	2	
7	40 x 50mm deep seal combination P or S trap	No	2	
<u>"Cobra Watertech"</u>				
8	Cobra ref 206-20 bib trap	No	2	
9	cobra ref 111-15 pillar tap	No	2	
10	cobra ref 365/40 CP bottle trap	No	2	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
11	32mm 303 CP basin waste union and 309CP anti-theft plug	No	2		
12	15mm 126-15CP stopcock	No	2		
13	cobra ref 232/350 angle regulating valve	No	2		
14	Cobra ref FJ6.000 Fluushmaster junior exposed top entry urinal flushvalve complete with cobra ref FJT5.4 Connector and spray rose	No	1		
<u>New Items</u>					
<u>SANITARY PLUMBING</u>					
<u>uPVC soil and vent pipes</u>					
15	50mm Pipes	No	5		
16	110mm Pipes	No	14		
17	110mm Pipes laid in and including trenches not exceeding 1m deep	No	7		
<u>Extra over uPVC soil and vent pipes for fittings</u>					
18	50mm Bend	No	2		
19	110mm Bend	No	2		
20	50mm Junction	No	2		
21	110mm Junction	No	2		
22	110 x 50mm reducing junction	No	2		
23	110mm double junction	No	2		
24	50mm Access bend	No	2		
25	110mm Access bend	No	2		
26	110mm Pan connector	No	2		
27	110mm GI Two way vent valve	No	2		
<u>Pre-cast concrete gulleys</u>					
28	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	2		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
29	110mm Air vent valve	No		2	
30	250mm "Whirly Bird) Air Vent	No		2	
<u>Sundries</u>					
31	Extra over excavation for pipe trenches chambers etc for excavation in soft rock	m3		1	
32	Extra over excavation for pipe trenches chambers etc for excavation in hard rock	m3		1	
33	110mm cast iron ABC cleaning eye	No		2	
34	Testing drainage pipe system	item			
<u>WATER SUPPLIES</u>					
<u>Class 6 HDPE type IV pipes:</u>					
35	32mm Pipes laid in and including trenches not exceeding 1m deep	m		10	
<u>Extra over Class 10 HDPE type IV pipes for "Plasson" fittings:</u>					
36	32mm Reducer	No		2	
37	50mm pipes	m		20	
38	50mm fittings	No.		8	
39	32mm Bend	No		2	
40	32mm Threaded adaptor	No		2	
41	32mm Tee	No		2	
<u>Galvanised steel pipes</u>					
42	25mm Pipes chased into brick walls	m		12	
43	15mm Pipes chased into wall	m		12	
<u>Extra over galvanised steel pipes for steel fittings</u>					
44	25mm Fittings	No		2	
45	15mm fittings	No		8	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Class "O" copper pipes</u>					
46	15mm Pipes	m		5	
47	15mm Fittings	No		2	
<u>RAINWATER DISPOSAL</u>					
<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>					
48	125 x 100mm Seamless eaves gutters with beaded front edge	m		6	
49	Extra over eaves gutter for stopped end	No		6	
50	Extra over eaves gutter for angle	No		6	
51	Extra over eaves gutter for outlet for 100mm diameter pipe	No		6	
52	100mm Diameter rainwater pipes	m		6	
53	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No		6	
54	Extra over rainwater pipe for shoe	No		6	
TESTING					
55	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect	Item		1	
Carried Forward To Summary Of Section No. 2					

Section No. 2
PRELIMINARIES AND GENERAL
Bill No. 2
Cluster 05
Nemorango Consulting Engineers

BILL NO. 11

GLAZING

SUPPLEMENTARY PREAMBLES

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

GLAZING TO STEEL WITH PUTTY

4mm rough class glass

1 Panes not exceeding 0,1 m2

m2

6

Carried Forward To Summary Of Section No. 2

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<u>BILL NO. 13</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>					
Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint					
1	On fascias and barge boards	m2	8		
<u>ON WOOD</u>					
Undercoat and minimum 2 coat gloss enamel					
2	On doors (Internal)	m2	4		
3	On doors (External)	m2	4		
<u>ON METAL</u>					
Undercoat and minimum 2 coat gloss enamel					
4	On door frames	m2	2		
5	On gates (Measured over the full flat area of both sides)	m2	2		
6	On gutters and down pipes	m	10		
<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	1		
Carried Forward To Summary Of Section No. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p>Section No. 2 BUILDING WORKS</p> <p><u>SECTION SUMMARY-BUILDING WORKS</u></p>				
1	EARTHWORKS			R	-
2	CONCRETE,FORMWORK AND REINFORCEMENT			R	-
3	MASONRY			R	-
4	WATERPROOFING			R	-
5	ROOF COVERINGS			R	-
6	CARPENTRY AND JOINERY			R	-
7	IRONMONGERY			R	-
8	METALWORK			R	-
9	IN SITU FINISHES			R	-
10	PLUMBING AND DRAINAGE			R	-
11	GLAZING			R	-
12	PAINTWORK			R	-
	Carried Forward To Summary Of Section No. 2			R	-

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	GRFD2				
	Bill No. 1 Cluster 05 Nemorango Consulting Engineers				
	<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	15		
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	15		
	<u>EXCAVATION,FILLING, ETC</u>				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	8		
4	For aprons thickening	m3	9		
	<u>Extra over trench and hole excavations in earth for excavation:</u>				
5	Soft rock	m3	12		
6	Hard rock	m3	6		
	<u>Extra over all excavations for carting away:</u>				
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	3		
	Carried Forward				

Brought Forward				
<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	8	
<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water	Item	1	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	8	
11	Backfilling to trenches, holes, etc.	m3	8	
<u>Compaction of surfaces</u>				
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	8	
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	14	
14	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	14	
Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Prescribed density tests on filling</u></p> <p>15 Modified AASHTO Density tests</p> <p><u>SOIL POISONING</u></p> <p><u>Soil insecticide</u></p> <p>16 Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming.</p> <p>17 To bottom of concrete aprons</p> <p>18 To bottoms and sides of trenches, etc.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<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>					
25Mpa/19mm Concrete					
1	Strip footings	m3		3	
2	Ditto, but surface bed in pit	m3		3	
3	2Aprons cast in panels	m3		3	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m		3	
5	Thickening down apron on edge 110mm deep x 200mm wide	m		8	
<u>REINFORCED CONCRETE, ETC</u>					
<u>25Mpa/19mm Concrete</u>					
6	Slabs	m3		8	
<u>CONCRETE SUNDRIES</u>					
<u>Finishing top surfaces of concrete smooth with a wood float</u>					
7	Aprons and pavings to falls	m2		8	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>TEST CUBES</u>					
8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No		3	
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
9	Surface beds, slabs, etc.	m2		15	
<u>FORMWORK</u>					
<u>Rough formwork to sides:</u>					
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m		6	
<u>Permanent formwork to soffits:</u>					
11	Slabs propped up not exceeding 1.5m high	m2		6	
12	Leave or form 500mm diameter opening in top of floor slab	No		3	
<u>REINFORCEMENT</u>					
Mesh Reinforcement (measure nett)					
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2		15	
Carried Forward To Summary of Section No. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers <u>BILL NO.3</u> <u>MASONRY</u> <u>SUPPLEMENTARY PREAMBLES</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><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 Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p>SAMPLES Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><u>FOUNDATIONS</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></p> <p>1 One brick walls m2 45</p> <p>2 One brick walls in pit m2 30</p> <p>3 Half brick walls m2 12</p> <p><u>FACE BRICKWORK</u> <u>Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints</u></p> <p>4 Extra over brickwork for face brickwork in foundation m2 45</p> <p style="text-align: right;">Carried Forward</p>				
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
	Brought Forward			
SUPERSTRUCTURE				
FACE BRICKWORK				
Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints				
5 Half brickwork for face brick walls pointed both sides	m2	45		
6 One brickwork for face brick walls pointed both sides	m2	43		
7 Extra over brickwork for face brickwork in beamfilling	m2	15		
8 Fair raking and cutting	m	12		
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>				
9 Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	12		
10 Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	12		
11 Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	3		
<u>BRICKWORK SUNDRIES</u>				
<u>Brick reinforcement</u>				
12 75mm Wide reinforcement built in horizontally	m	63		
13 150mm Wide reinforcement built in horizontally	m	63		
<u>Turning pieces</u>				
14 220mm Wide turning piece to lintel etc	m	10		
	Carried Forward			

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Galvanised wire ties etc</u>					
15	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No		12	
<u>Prestressed fabricated lintels</u>					
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m		10	
<u>Ventillation bricks</u>					
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No		6	
Carried Forward To Summary of Section No. 2					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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	40	
2	114 x 38mm Wall plates	m	35	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	40	
<u>Sundries</u>				
4	Two coats creosote on sawn timbers	m2	30	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	12	
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	15	
Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>DOORS, ETC.</u></p> <p><u>Wrought meranti doors hung to steel frames</u></p> <p>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)</p> <p><u>Solid flush doors with 3,2mm standard hardboard covering on both sides and with wrought hardwood concealed vertical edge strips hung to steel frames</u></p> <p>9 40mm Door 914 x 2032mm high</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
		No		3	
		No		1	

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.7</u></p> <p><u>IRONMONGERY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CATCHES, CABIN, HOOKS, ETC</u></p> <p><u>Approved</u></p> <p>1 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged</p> <p><u>LOCKS</u></p> <p><u>Approved</u></p> <p>2 Three lever mortice lockset</p> <p>3 Indicator lockset</p> <p><u>DOORSTOPS</u></p> <p><u>Approved</u></p> <p>4 38mm Diameter rubber door stop plugged</p> <p><u>LETTERS, NAMEPLATES, ETC.</u></p> <p><u>"Union" or similar approved</u></p> <p>5 75 x 150mm Natural anodised aluminium plate with male or female or disabled symbol</p>				
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Hot-dipped double spelter galvanised mild steel grab rails formed of 32mm outside diameter x 1,6mm round section rails and 75mm diameter x 3mm flat section fixing flanges each three times holed and bolted to walls with M8 x 50mm expansion bolts</u></p> <p>6 32mm Grab rail 700mm long with two 206mm return ends bolted</p> <p>7 32mm Cranked grab rail 300 x 300 x 300mm with two 80mm return ends bolted</p> <p><u>BATHROOM FITTINGS</u></p> <p>"Kimberley-Clark" or Similar</p> <p>8 "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder</p> <p><u>Stainless steel</u></p> <p>9 Stainless steel mirror size 350 x 400mm plugged to wall with chrome plated screws.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.8</u></p> <p><u>METALWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Single rebated frames suitable for half brick walls</u></p> <p>1 Frame for door 813 x 2032mm high</p> <p><u>1,6mm Double rebated frames suitable for one brickwalls</u></p> <p>2 Frame for door 900 x 2032mm high</p> <p><u>STEEL WINDOWS, DOORS, ETC</u></p> <p>3 Window type NE1, 533 x 654mm high including burglar bars</p> <p>4 Window type NE 7,1022 x 654mm high including burglar bars</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Steel gates and frames</u></p> <p>5 Purpose made square hallow section mild steel security gate, size 813 x 2032mm High</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>3</p> <p>1</p> <p>3</p> <p>1</p> <p>1</p>		
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>BUDGETARY ALLOWANCES</u></p> <p><u>The items described hereunder cover work which is not fully defined at tender stage and is intended to be executed by the contractor at rates to be agreed with the contractor in accordance with clause B1.9 of the Preliminaries at the time the work is defined. The amounts shown shall be used as directed by the Representative/Agent and shall be deducted in whole or in part if not required.</u></p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
7	Protective Steel Cage to female SHE-Bins	No	3		
	Carried Forward To Summary Of Section No. 2				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO. 09</u></p> <p><u>IN SITU FINISHES</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CEMENT SCREEDS TO CONCRETE</u></p> <p><u>Screeds to steel trowelled, on concrete:</u></p> <p>1 30mm thick on floors</p> <p><u>FLOOR AND WALLS SEALERS</u></p> <p><u>Minimum two coats approved epoxy coat:</u></p> <p>3 On screed</p> <p>4 On internal textured plaster walls and floors in pit</p> <p><u>EPOXY</u></p> <p>5 Epoxy finish to floors</p>				
	<p>Carried Forward To Summary Of Section No. 2</p>				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>SUPPLEMENTARY PREAMBLES</u>				
<u>FITTINGS</u>				
1	19mm chrome plated push button taps to wash troughs	No	2	
<u>"Vaal"</u>				
2	510 x 405mm "Daisy" 7061 or hibiscus 7050 white vitreous chain rounded lavatory basin with two tap holes supported on and oncl two bolts	No	2	
3	610 x 385mm white vitreous chain wall mounted lavatera urinal 704001 with top inlet complete with 38mm c.p domical grating 8787 cp spreader 8543 and two hager brackets 8127	No	0	
4	"Hibiscus" 772602 or white vitreous chain semi-close-coupled 90 degrees outlet open rim washdown pan 774000 and matching 9 litre cistern 710034 complete with lid, fitments and flush pipe elbow and conversion bend 710044 and deluxe toilet seat	No	2	
5	vitreous chain protea paraplegic 90 degrees outlet pan 7502 and matching 9 litre cistern 710536 complete with lid, fitments tc and and deluxe double flap toilet seat and purpose made c.p side flush lever mounted on wall adjacent to cistern	No	1	
<u>Traps etc</u>				
<u>Marley</u>				
6	40mm flexi butyl rubber trap with reseal P trap	No	3	
7	40 x 50mm deep seal combination P or S trap	No	3	
<u>"Cobra Watertech"</u>				
8	Cobra ref 206-20 bib trap	No	3	
9	cobra ref 111-15 pillar tap	No	3	
10	cobra ref 365/40 CP bottle trap	No	3	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
11	32mm 303 CP basin waste union and 309CP anti-theft plug	No	3		
12	15mm 126-15CP stopcock	No	3		
13	cobra ref 232/350 angle regulating valve	No	3		
14	Cobra ref FJ6.000 Fluushmaster junior exposed top entry urinal flushvalve complete with cobra ref FJT5.4 Connector and spray rose	No	0		
<u>New Items</u>					
<u>SANITARY PLUMBING</u>					
<u>uPVC soil and vent pipes</u>					
15	50mm Pipes	No	10		
16	110mm Pipes	No	25		
17	110mm Pipes laid in and including trenches not exceeding 1m deep	No	14		
<u>Extra over uPVC soil and vent pipes for fittings</u>					
18	50mm Bend	No	3		
19	110mm Bend	No	3		
20	50mm Junction	No	3		
21	110mm Junction	No	3		
22	110 x 50mm reducing junction	No	3		
23	110mm double junction	No	3		
24	50mm Access bend	No	3		
25	110mm Access bend	No	3		
26	110mm Pan connector	No	3		
27	110mm GI Two way vent valve	No	3		
<u>Pre-cast concrete gulleys</u>					
28	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	3		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
29	110mm Air vent valve	No		3	
30	250mm "Whirly Bird) Air Vent	No		2	
<u>Sundries</u>					
31	Extra over excavation for pipe trenches chambers etc for excavation in soft rock	m3		2	
32	Extra over excavation for pipe trenches chambers etc for excavation in hard rock	m3		2	
33	110mm cast iron ABC cleaning eye	No		3	
34	Testing drainage pipe system	item			
<u>WATER SUPPLIES</u>					
<u>Class 6 HDPE type IV pipes:</u>					
35	32mm Pipes laid in and including trenches not exceeding 1m deep	m		12	
<u>Extra over Class 10 HDPE type IV pipes for "Plasson" fittings:</u>					
36	32mm Reducer	No		3	
37	50mm pipes	m		32	
38	50mm fittings	No.		14	
39	32mm Bend	No		3	
40	32mm Threaded adaptor	No		3	
41	32mm Tee	No		3	
<u>Galvanised steel pipes</u>					
42	25mm Pipes chased into brick walls	m		22	
43	15mm Pipes chased into wall	m		22	
<u>Extra over galvanised steel pipes for steel fittings</u>					
44	25mm Fittings	No		3	
45	15mm fittings	No		12	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Class "O" copper pipes</u>					
46	15mm Pipes	m		7	
47	15mm Fittings	No		3	
<u>RAINWATER DISPOSAL</u>					
<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>					
48	125 x 100mm Seamless eaves gutters with beaded front edge	m		8	
49	Extra over eaves gutter for stopped end	No		8	
50	Extra over eaves gutter for angle	No		8	
51	Extra over eaves gutter for outlet for 100mm diameter pipe	No		8	
52	100mm Diameter rainwater pipes	m		8	
53	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No		8	
54	Extra over rainwater pipe for shoe	No		8	
TESTING					
55	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect	Item		1	
Carried Forward To Summary Of Section No. 2					

Section No. 2
PRELIMINARIES AND GENERAL
Bill No. 2
Cluster 05
Nemorango Consulting Engineers

BILL NO. 11

GLAZING

SUPPLEMENTARY PREAMBLES

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

GLAZING TO STEEL WITH PUTTY

4mm rough class glass

1 Panes not exceeding 0,1 m2

m2

11

Carried Forward To Summary Of Section No. 2

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<u>BILL NO. 13</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>				
Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint				
1	On fascias and barge boards	m2	14	
<u>ON WOOD</u>				
Undercoat and minimum 2 coat gloss enamel				
2	On doors (Internal)	m2	8	
3	On doors (External)	m2	8	
<u>ON METAL</u>				
Undercoat and minimum 2 coat gloss enamel				
4	On door frames	m2	5	
5	On gates (Measured over the full flat area of both sides)	m2	5	
6	On gutters and down pipes	m	17	
<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. 2				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
Section No. 2 BUILDING WORKS <u>SECTION SUMMARY-BUILDING WORKS</u>				
1 EARTHWORKS			R	-
2 CONCRETE,FORMWORK AND REINFORCEMENT			R	-
3 MASONRY			R	-
4 WATERPROOFING			R	-
5 ROOF COVERINGS			R	-
6 CARPENTRY AND JOINERY			R	-
7 IRONMONGERY			R	-
8 METALWORK			R	-
9 IN SITU FINISHES			R	-
10 PLUMBING AND DRAINAGE			R	-
11 GLAZING			R	-
12 PAINTWORK			R	-
Carried Forward To Summary Of Section No. 2				R -

Brought Forward				
<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	16	
<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water	Item	1	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	16	
11	Backfilling to trenches, holes, etc.	m3	16	
<u>Compaction of surfaces</u>				
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	16	
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	28	
14	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	28	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>				
25Mpa/19mm Concrete				
1	Strip footings	m3	6	
2	Ditto, but surface bed in pit	m3	6	
3	2Aprons cast in panels	m3	6	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	6	
5	Thickening down apron on edge 110mm deep x 200mm wide	m	16	
<u>REINFORCED CONCRETE, ETC</u>				
<u>25Mpa/19mm Concrete</u>				
6	Slabs	m3	16	
<u>CONCRETE SUNDRIES</u>				
<u>Finishing top surfaces of concrete smooth with a wood float</u>				
7	Aprons and pavings to falls	m2	16	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>TEST CUBES</u>					
8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No		3	
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
9	Surface beds, slabs, etc.	m2		30	
<u>FORMWORK</u>					
<u>Rough formwork to sides:</u>					
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m		12	
<u>Permanent formwork to soffits:</u>					
11	Slabs propped up not exceeding 1.5m high	m2		12	
12	Leave or form 500mm diameter opening in top of floor slab	No		6	
<u>REINFORCEMENT</u>					
Mesh Reinforcement (measure nett)					
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2		30	
Carried Forward To Summary of Section No. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers <u>BILL NO.3</u> <u>MASONRY</u> <u>SUPPLEMENTARY PREAMBLES</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><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 Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p>SAMPLES Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><u>FOUNDATIONS</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></p> <p>1 One brick walls m2 90</p> <p>2 One brick walls in pit m2 60</p> <p>3 Half brick walls m2 24</p> <p><u>FACE BRICKWORK</u> <u>Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints</u></p> <p>4 Extra over brickwork for face brickwork in foundation m2 90</p> <p style="text-align: right;">Carried Forward</p>				
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
SUPERSTRUCTURE					
FACE BRICKWORK					
Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints					
5	Half brickwork for face brick walls pointed both sides	m2	90		
6	One brickwork for face brick walls pointed both sides	m2	86		
7	Extra over brickwork for face brickwork in beamfilling	m2	30		
8	Fair raking and cutting	m	24		
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>					
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	24		
10	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	24		
11	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	6		
<u>BRICKWORK SUNDRIES</u>					
<u>Brick reinforcement</u>					
12	75mm Wide reinforcement built in horizontally	m	126		
13	150mm Wide reinforcement built in horizontally	m	126		
<u>Turning pieces</u>					
14	220mm Wide turning piece to lintel etc	m	20		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Galvanised wire ties etc</u>					
15	4mm 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>					
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m		20	
<u>Ventillation bricks</u>					
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No		6	
Carried Forward To Summary of Section No. 2					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<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		80	
2	114 x 38mm Wall plates	m		70	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m		80	
<u>Sundries</u>					
4	Two coats creosote on sawn timbers	m2		60	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No		24	
6	Hurricane clips	No		30	
<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		30	
Carried Forward					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>DOORS, ETC.</u></p> <p><u>Wrought meranti doors hung to steel frames</u></p> <p>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)</p> <p><u>Solid flush doors with 3,2mm standard hardboard covering on both sides and with wrought hardwood concealed vertical edge strips hung to steel frames</u></p> <p>9 40mm Door 914 x 2032mm high</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.7</u></p> <p><u>IRONMONGERY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CATCHES, CABIN, HOOKS, ETC</u></p> <p><u>Approved</u></p> <p>1 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged</p> <p><u>LOCKS</u></p> <p><u>Approved</u></p> <p>2 Three lever mortice lockset</p> <p>3 Indicator lockset</p> <p><u>DOORSTOPS</u></p> <p><u>Approved</u></p> <p>4 38mm Diameter rubber door stop plugged</p> <p><u>LETTERS, NAMEPLATES, ETC.</u></p> <p><u>"Union" or similar approved</u></p> <p>5 75 x 150mm Natural anodised aluminium plate with male or female or disabled symbol</p>				
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Hot-dipped double spelter galvanised mild steel grab rails formed of 32mm outside diameter x 1,6mm round section rails and 75mm diameter x 3mm flat section fixing flanges each three times holed and bolted to walls with M8 x 50mm expansion bolts</u></p> <p>6 32mm Grab rail 700mm long with two 206mm return ends bolted</p> <p>7 32mm Cranked grab rail 300 x 300 x 300mm with two 80mm return ends bolted</p> <p><u>BATHROOM FITTINGS</u></p> <p>"Kimberley-Clark" or Similar</p> <p>8 "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder</p> <p><u>Stainless steel</u></p> <p>9 Stainless steel mirror size 350 x 400mm plugged to wall with chrome plated screws.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.8</u></p> <p><u>METALWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Single rebated frames suitable for half brick walls</u></p> <p>1 Frame for door 813 x 2032mm high</p> <p><u>1,6mm Double rebated frames suitable for one brickwalls</u></p> <p>2 Frame for door 900 x 2032mm high</p> <p><u>STEEL WINDOWS, DOORS, ETC</u></p> <p>3 Window type NE1, 533 x 654mm high including burglar bars</p> <p>4 Window type NE 7,1022 x 654mm high including burglar bars</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Steel gates and frames</u></p> <p>5 Purpose made square hallow section mild steel security gate, size 813 x 2032mm High</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>4</p> <p>1</p> <p>4</p> <p>1</p> <p>1</p>		
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>BUDGETARY ALLOWANCES</u></p> <p><u>The items described hereunder cover work which is not fully defined at tender stage and is intended to be executed by the contractor at rates to be agreed with the contractor in accordance with clause B1.9 of the Preliminaries at the time the work is defined. The amounts shown shall be used as directed by the Representative/Agent and shall be deducted in whole or in part if not required.</u></p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
7	Protective Steel Cage to female SHE-Bins	No	2		
	Carried Forward To Summary Of Section No. 2				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>SUPPLEMENTARY PREAMBLES</u>				
<u>FITTINGS</u>				
1	19mm chrome plated push button taps to wash troughs	No	3	
<u>"Vaal"</u>				
2	510 x 405mm "Daisy" 7061 or hibiscus 7050 white vitreous chain rounded lavatory basin with two tap holes supported on and oncl two bolts	No	3	
3	610 x 385mm white vitreous chain wall mounted lavatera urinal 704001 with top inlet complete with 38mm c.p domical grating 8787 cp spreader 8543 and two hager brackets 8127	No	8	
4	"Hibiscus" 772602 or white vitreous chain semi-close-coupled 90 degrees outlet open rim washdown pan 774000 and matching 9 litre cistern 710034 complete with lid, fitments and flush pipe elbow and conversion bend 710044 and deluxe toilet seat	No	3	
5	vitreous chain protea paraplegic 90 degrees outlet pan 7502 and matching 9 litre cistern 710536 complete with lid, fitments tc and and deluxe double flap toilet seat and purpose made c.p side flush lever mounted on wall adjacent to cistern	No	1	
<u>Traps etc</u>				
<u>Marley</u>				
6	40mm flexi butyl rubber trap with reseal P trap	No	4	
7	40 x 50mm deep seal combination P or S trap	No	4	
<u>"Cobra Watertech"</u>				
8	Cobra ref 206-20 bib trap	No	4	
9	cobra ref 111-15 pillar tap	No	4	
10	cobra ref 365/40 CP bottle trap	No	4	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
11	32mm 303 CP basin waste union and 309CP anti-theft plug	No	4		
12	15mm 126-15CP stopcock	No	4		
13	cobra ref 232/350 angle regulating valve	No	4		
14	Cobra ref FJ6.000 Fluushmaster junior exposed top entry urinal flushvalve complete with cobra ref FJT5.4 Connector and spray rose	No	8		
<u>New Items</u>					
<u>SANITARY PLUMBING</u>					
<u>uPVC soil and vent pipes</u>					
15	50mm Pipes	No	10		
16	110mm Pipes	No	28		
17	110mm Pipes laid in and including trenches not exceeding 1m deep	No	14		
<u>Extra over uPVC soil and vent pipes for fittings</u>					
18	50mm Bend	No	4		
19	110mm Bend	No	4		
20	50mm Junction	No	4		
21	110mm Junction	No	4		
22	110 x 50mm reducing junction	No	4		
23	110mm double junction	No	4		
24	50mm Access bend	No	4		
25	110mm Access bend	No	4		
26	110mm Pan connector	No	4		
27	110mm GI Two way vent valve	No	4		
<u>Pre-cast concrete gulleys</u>					
28	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	4		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
29	110mm Air vent valve	No		4	
30	250mm "Whirly Bird) Air Vent	No		3	
<u>Sundries</u>					
31	Extra over excavation for pipe trenches chambers etc for excavation in soft rock	m3		2	
32	Extra over excavation for pipe trenches chambers etc for excavation in hard rock	m3		2	
33	110mm cast iron ABC cleaning eye	No		4	
34	Testing drainage pipe system	item			
<u>WATER SUPPLIES</u>					
<u>Class 6 HDPE type IV pipes:</u>					
35	32mm Pipes laid in and including trenches not exceeding 1m deep	m		20	
<u>Extra over Class 10 HDPE type IV pipes for "Plasson" fittings:</u>					
36	32mm Reducer	No		4	
37	50mm pipes	m		40	
38	50mm fittings	No.		16	
39	32mm Bend	No		4	
40	32mm Threaded adaptor	No		4	
41	32mm Tee	No		4	
<u>Galvanised steel pipes</u>					
42	25mm Pipes chased into brick walls	m		24	
43	15mm Pipes chased into wall	m		24	
<u>Extra over galvanised steel pipes for steel fittings</u>					
44	25mm Fittings	No		4	
45	15mm fittings	No		16	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Class "O" copper pipes</u>					
46	15mm Pipes	m	10		
47	15mm Fittings	No	4		
<u>RAINWATER DISPOSAL</u>					
<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>					
48	125 x 100mm Seamless eaves gutters with beaded front edge	m	12		
49	Extra over eaves gutter for stopped end	No	12		
50	Extra over eaves gutter for angle	No	12		
51	Extra over eaves gutter for outlet for 100mm diameter pipe	No	12		
52	100mm Diameter rainwater pipes	m	12		
53	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	12		
54	Extra over rainwater pipe for shoe	No	12		
TESTING					
55	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect	Item	1		
Carried Forward To Summary Of Section No. 2					

Section No. 2
PRELIMINARIES AND GENERAL
Bill No. 2
Cluster 05
Nemorango Consulting Engineers

BILL NO. 11

GLAZING

SUPPLEMENTARY PREAMBLES

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

GLAZING TO STEEL WITH PUTTY

4mm rough class glass

1 Panes not exceeding 0,1 m2

m2

12

Carried Forward To Summary Of Section No. 2

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
<u>BILL NO. 13</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>					
Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint					
1	On fascias and barge boards	m2	16		
<u>ON WOOD</u>					
Undercoat and minimum 2 coat gloss enamel					
2	On doors (Internal)	m2	8		
3	On doors (External)	m2	8		
<u>ON METAL</u>					
Undercoat and minimum 2 coat gloss enamel					
4	On door frames	m2	4		
5	On gates (Measured over the full flat area of both sides)	m2	4		
6	On gutters and down pipes	m	20		
<u>Spot priming defects in prime surface with zinc chromate primer and apply one universal undercoat and two coats EPWP, golden brown gloss enamel paint on steel</u>					
7	On windows with burglar bars	m2	2		
Carried Forward To Summary Of Section No. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p>Section No. 2 BUILDING WORKS</p> <p><u>SECTION SUMMARY-BUILDING WORKS</u></p>				
1	EARTHWORKS			R	-
2	CONCRETE,FORMWORK AND REINFORCEMENT			R	-
3	MASONRY			R	-
4	WATERPROOFING			R	-
5	ROOF COVERINGS			R	-
6	CARPENTRY AND JOINERY			R	-
7	IRONMONGERY			R	-
8	METALWORK			R	-
9	IN SITU FINISHES			R	-
10	PLUMBING AND DRAINAGE			R	-
11	GLAZING			R	-
12	PAINTWORK			R	-
Carried Forward To Summary Of Section No. 2					R -

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	FD6				
	Bill No. 1 Cluster 05 Nemorango Consulting Engineers				
	<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	23		
2	Stripping average 100mm thick layer of top soil and stockpiling on site	m2	23		
	<u>EXCAVATION,FILLING, ETC</u>				
	Excavation in earth not exceeding 2m deep				
3	Trenches	m3	12		
4	For aprons thickening	m3	14		
	<u>Extra over trench and hole excavations in earth for excavation:</u>				
5	Soft rock	m3	18		
6	Hard rock	m3	9		
	<u>Extra over all excavations for carting away:</u>				
7	Surplus material from excavations and/or stock piles on site to a dumping site to be allocated by the Contractor	m3	5		
	Carried Forward				

Brought Forward				
<u>Risk of collapse of excavations</u>				
8	Sides of trench and hole excavation not exceeding 1,5m deep.	m2	12	
<u>Keeping excavations free of water.</u>				
9	Keeping excavations free of water other than subterranean water	Item	1	
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u>				
10	Under floors, steps, pavings, etc.	m3	12	
11	Backfilling to trenches, holes, etc.	m3	12	
<u>Compaction of surfaces</u>				
12	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	12	
13	Compaction of ground surface to pits etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	21	
14	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	21	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>				
25Mpa/19mm Concrete				
1	Strip footings	m3	5	
2	Ditto, but surface bed in pit	m3	5	
3	2Aprons cast in panels	m3	5	
4	Extra over concrete in surface beds for thickening 85mm deep the bottom including all excavation, backfilling etc.	m	5	
5	Thickening down apron on edge 110mm deep x 200mm wide	m	12	
<u>REINFORCED CONCRETE, ETC</u>				
<u>25Mpa/19mm Concrete</u>				
6	Slabs	m3	12	
<u>CONCRETE SUNDRIES</u>				
<u>Finishing top surfaces of concrete smooth with a wood float</u>				
7	Aprons and pavings to falls	m2	12	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>TEST CUBES</u>					
8	Allow for preparing a set of three test cubes each size 150x150x150mm, sending them to an approved testing laboratory for testing and paying all charges in connection therewith.	No		3	
<u>Finishing top surfaces of concrete smooth with a steel trowel</u>					
9	Surface beds, slabs, etc.	m2		23	
<u>FORMWORK</u>					
<u>Rough formwork to sides:</u>					
10	Edges, risers, ends and reveals not exceeding 300mm high or wide	m		9	
<u>Permanent formwork to soffits:</u>					
11	Slabs propped up not exceeding 1.5m high	m2		9	
12	Leave or form 500mm diameter opening in top of floor slab	No		5	
<u>REINFORCEMENT</u>					
Mesh Reinforcement (measure nett)					
13	Mesh ref. No. 395 fabric reinforcement fixed horizontal in surface beds	m2		23	
Carried Forward To Summary of Section No. 2					

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers <u>BILL NO.3</u> <u>MASONRY</u> <u>SUPPLEMENTARY PREAMBLES</u> For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><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 Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole. Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixeal" bitumen emulsion waterproofing coating.</p> <p>User note: The above preamble generally applies for works in hot and humid coastal areas</p> <p>Face bricks Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc</p> <p>SAMPLES Samples of all masonry building units, except those for walls units. Samples of building units to be used in walls described as "load bearing" shall consist of 30 units from every 30 000 units delivered to site described as "load bearing", shall consist of a minimum of 6</p> <p><u>FOUNDATIONS</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar</u></p> <p>1 One brick walls m2 68</p> <p>2 One brick walls in pit m2 45</p> <p>3 Half brick walls m2 18</p> <p><u>FACE BRICKWORK</u> <u>Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints</u></p> <p>4 Extra over brickwork for face brickwork in foundation m2 68</p> <p style="text-align: right;">Carried Forward</p>				
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
SUPERSTRUCTURE					
FACE BRICKWORK					
Face bricks (to match existing bricks) pointed with flush horizontal and vertical joints					
5	Half brickwork for face brick walls pointed both sides	m2	68		
6	One brickwork for face brick walls pointed both sides	m2	65		
7	Extra over brickwork for face brickwork in beamfilling	m2	23		
8	Fair raking and cutting	m	18		
<u>Brick-on-edge header course coping, sills, etc. of face bricks (purchase price of R 3 500.00/1000 delivered to site excluding VAT) pointed with recessed joints on all exposed faces</u>					
9	Extra over brickwork for brick-on-edge header course lintels pointed on two sides and 110mm soffit	m	18		
10	Face brick-on-edge window sill 220mm wide pointed on two side and on top and set at a angle	m	18		
11	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	5		
<u>BRICKWORK SUNDRIES</u>					
<u>Brick reinforcement</u>					
12	75mm Wide reinforcement built in horizontally	m	95		
13	150mm Wide reinforcement built in horizontally	m	95		
<u>Turning pieces</u>					
14	220mm Wide turning piece to lintel etc	m	15		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Galvanised wire ties etc</u>					
15	4mm Diameter roof tie 2m girth bent double with one end fixed to timber and other built into brickwork	No		18	
<u>Prestressed fabricated lintels</u>					
16	Pair of 110 x 75mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m		15	
<u>Ventillation bricks</u>					
17	Set of two 22 x 155mm high terra cotta clay vermin proof air bricks including making good reveals and gauze	No		6	
Carried Forward To Summary of Section No. 2					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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	60	
2	114 x 38mm Wall plates	m	53	
3	50 x 76mm Purlins in lengths exceeding 3,9m and not exceeding 6,6m	m	60	
<u>Sundries</u>				
4	Two coats creosote on sawn timbers	m2	45	
5	6mm Diameter galvanised wire tie 3000mm girth wrapped around rafter and purlin with ends tied together	No	18	
6	Hurricane clips	No	23	
<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	23	
Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>DOORS, ETC.</u></p> <p><u>Wrought meranti doors hung to steel frames</u></p> <p>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)</p> <p><u>Solid flush doors with 3,2mm standard hardboard covering on both sides and with wrought hardwood concealed vertical edge strips hung to steel frames</u></p> <p>9 40mm Door 914 x 2032mm high</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
		No		7	
		No		1	

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.7</u></p> <p><u>IRONMONGERY</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>CATCHES, CABIN, HOOKS, ETC</u></p> <p><u>Approved</u></p> <p>1 150mm Cabin hook and eye including 70 x 70 x 20mm chamfered hardwood block twice oiled and plugged</p> <p><u>LOCKS</u></p> <p><u>Approved</u></p> <p>2 Three lever mortice lockset</p> <p>3 Indicator lockset</p> <p><u>DOORSTOPS</u></p> <p><u>Approved</u></p> <p>4 38mm Diameter rubber door stop plugged</p> <p><u>LETTERS, NAMEPLATES, ETC.</u></p> <p><u>"Union" or similar approved</u></p> <p>5 75 x 150mm Natural anodised aluminium plate with male or female or disabled symbol</p>				
	Carried Forward				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Hot-dipped double spelter galvanised mild steel grab rails formed of 32mm outside diameter x 1,6mm round section rails and 75mm diameter x 3mm flat section fixing flanges each three times holed and bolted to walls with M8 x 50mm expansion bolts</u></p> <p>6 32mm Grab rail 700mm long with two 206mm return ends bolted</p> <p>7 32mm Cranked grab rail 300 x 300 x 300mm with two 80mm return ends bolted</p> <p><u>BATHROOM FITTINGS</u></p> <p>"Kimberley-Clark" or Similar</p> <p>8 "Kimberly Clark" SQ2 code 405607B white lockable toilet roll holder</p> <p><u>Stainless steel</u></p> <p>9 Stainless steel mirror size 350 x 400mm plugged to wall with chrome plated screws.</p> <p style="text-align: right;">Carried Forward To Summary of Section No. 2</p>				<div style="background-color: yellow; height: 15px; width: 100%;"></div>
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	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO.8</u></p> <p><u>METALWORK</u></p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>For preambles see "Specifications of materials and methods to be used - PW 371"</p> <p><u>PRESSED STEEL DOOR FRAMES</u></p> <p><u>1,2mm Single rebated frames suitable for half brick walls</u></p> <p>1 Frame for door 813 x 2032mm high</p> <p><u>1,6mm Double rebated frames suitable for one brickwalls</u></p> <p>2 Frame for door 900 x 2032mm high</p> <p><u>STEEL WINDOWS, DOORS, ETC</u></p> <p>3 Window type NE1, 533 x 654mm high including burglar bars</p> <p>4 Window type NE 7,1022 x 654mm high including burglar bars</p> <p><u>WELDED SCREENS, GATES, ETC</u></p> <p><u>Steel gates and frames</u></p> <p>5 Purpose made square hallow section mild steel security gate, size 813 x 2032mm High</p>	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>	<p>7</p> <p>1</p> <p>7</p> <p>1</p> <p>1</p>		
	<p style="text-align: right;">Carried Forward</p>				

Section No. 2
PRELIMINARIES AND GENERAL
Bill No. 2
Cluster 05
Nemorango Consulting Engineers

Brought Forward

BUDGETARY ALLOWANCES

The items described hereunder cover work which is not fully defined at tender stage and is intended to be executed by the contractor at rates to be agreed with the contractor in accordance with clause B1.9 of the Preliminaries at the time the work is defined. The amounts shown shall be used as directed by the Representative/Agent and shall be deducted in whole or in part if not required.

7 Protective Steel Cage to female SHE-Bins

No

7

Carried Forward To Summary Of Section No. 2

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<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>SUPPLEMENTARY PREAMBLES</u>				
<u>FITTINGS</u>				
1	19mm chrome plated push button taps to wash troughs	No	3	
<u>"Vaal"</u>				
2	510 x 405mm "Daisy" 7061 or hibiscus 7050 white vitreous chain rounded lavatory basin with two tap holes supported on and oncl two bolts	No	3	
3	610 x 385mm white vitreous chain wall mounted lavatera urinal 704001 with top inlet complete with 38mm c.p domical grating 8787 cp spreader 8543 and two hager brackets 8127	No	0	
4	"Hibiscus" 772602 or white vitreous chain semi-close-coupled 90 degrees outlet open rim washdown pan 774000 and matching 9 litre cistern 710034 complete with lid, fitments and flush pipe elbow and conversion bend 710044 and deluxe toilet seat	No	6	
5	vitreous chain protea paraplegic 90 degrees outlet pan 7502 and matching 9 litre cistern 710536 complete with lid, fitments tc and and deluxe double flap toilet seat and purpose made c.p side flush lever mounted on wall adjacent to cistern	No	1	
<u>Traps etc</u>				
<u>Marley</u>				
6	40mm flexi butyl rubber trap with reseal P trap	No	7	
7	40 x 50mm deep seal combination P or S trap	No	7	
<u>"Cobra Watertech"</u>				
8	Cobra ref 206-20 bib trap	No	7	
9	cobra ref 111-15 pillar tap	No	7	
10	cobra ref 365/40 CP bottle trap	No	7	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
11	32mm 303 CP basin waste union and 309CP anti-theft plug	No	7		
12	15mm 126-15CP stopcock	No	7		
13	cobra ref 232/350 angle regulating valve	No	7		
14	Cobra ref FJ6.000 Fluushmaster junior exposed top entry urinal flushvalve complete with cobra ref FJT5.4 Connector and spray rose	No	0		
<u>New Items</u>					
<u>SANITARY PLUMBING</u>					
<u>uPVC soil and vent pipes</u>					
15	50mm Pipes	No	20		
16	110mm Pipes	No	50		
17	110mm Pipes laid in and including trenches not exceeding 1m deep	No	28		
<u>Extra over uPVC soil and vent pipes for fittings</u>					
18	50mm Bend	No	7		
19	110mm Bend	No	7		
20	50mm Junction	No	7		
21	110mm Junction	No	7		
22	110 x 50mm reducing junction	No	7		
23	110mm double junction	No	7		
24	50mm Access bend	No	7		
25	110mm Access bend	No	7		
26	110mm Pan connector	No	7		
27	110mm GI Two way vent valve	No	7		
<u>Pre-cast concrete gulleys</u>					
28	110mm Dished gully not exceeding 1m deep with 150mm steel grate and standard concrete gully surround	No	7		
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
Brought Forward				
29	110mm Air vent valve	No	6	
30	250mm "Whirly Bird) Air Vent	No	3	
<u>Sundries</u>				
31	Extra over excavation for pipe trenches chambers etc for excavation in soft rock	m3	3	
32	Extra over excavation for pipe trenches chambers etc for excavation in hard rock	m3	3	
33	110mm cast iron ABC cleaning eye	No	6	
34	Testing drainage pipe system	item		
<u>WATER SUPPLIES</u>				
<u>Class 6 HDPE type IV pipes:</u>				
35	32mm Pipes laid in and including trenches not exceeding 1m deep	m	18	
<u>Extra over Class 10 HDPE type IV pipes for "Plasson" fittings:</u>				
36	32mm Reducer	No	7	
37	50mm pipes	m	48	
38	50mm fittings	No.	21	
39	32mm Bend	No	7	
40	32mm Threaded adaptor	No	7	
41	32mm Tee	No	7	
<u>Galvanised steel pipes</u>				
42	25mm Pipes chased into brick walls	m	33	
43	15mm Pipes chased into wall	m	33	
<u>Extra over galvanised steel pipes for steel fittings</u>				
44	25mm Fittings	No	7	
45	15mm fittings	No	21	
Carried Forward				

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>Class "O" copper pipes</u>					
46	15mm Pipes	m	11		
47	15mm Fittings	No	7		
<u>RAINWATER DISPOSAL</u>					
<u>0,8mm Galvanised sheet iron with "Chromadek" finish on one side</u>					
48	125 x 100mm Seamless eaves gutters with beaded front edge	m	12		
49	Extra over eaves gutter for stopped end	No	12		
50	Extra over eaves gutter for angle	No	12		
51	Extra over eaves gutter for outlet for 100mm diameter pipe	No	12		
52	100mm Diameter rainwater pipes	m	12		
53	Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	12		
54	Extra over rainwater pipe for shoe	No	12		
TESTING					
55	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect	Item	1		
Carried Forward To Summary Of Section No. 2					

Section No. 2
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BILL NO. 11

GLAZING

SUPPLEMENTARY PREAMBLES

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

GLAZING TO STEEL WITH PUTTY

4mm rough class glass

1 Panes not exceeding 0,1 m2

m2

17

Carried Forward To Summary Of Section No. 2

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers				
<u>BILL NO. 13</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>				
Prepare and brush to remove all loose contaminations, apply one coat primer and two coats PVA emulsion paint				
1	On fascias and barge boards	m2	21	
<u>ON WOOD</u>				
Undercoat and minimum 2 coat gloss enamel				
2	On doors (Internal)	m2	12	
3	On doors (External)	m2	12	
<u>ON METAL</u>				
Undercoat and minimum 2 coat gloss enamel				
4	On door frames	m2	8	
5	On gates (Measured over the full flat area of both sides)	m2	8	
6	On gutters and down pipes	m	23	
<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	6	
Carried Forward To Summary Of Section No. 2				

	<p>Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p>Section No. 2 BUILDING WORKS</p> <p><u>SECTION SUMMARY-BUILDING WORKS</u></p>				
1	EARTHWORKS			R	-
2	CONCRETE,FORMWORK AND REINFORCEMENT			R	-
3	MASONRY			R	-
4	WATERPROOFING			R	-
5	ROOF COVERINGS			R	-
6	CARPENTRY AND JOINERY			R	-
7	IRONMONGERY			R	-
8	METALWORK			R	-
9	IN SITU FINISHES			R	-
10	PLUMBING AND DRAINAGE			R	-
11	GLAZING			R	-
12	PAINTWORK			R	-
	Carried Forward To Summary Of Section No. 2			R	-

<p>STORMWATER AND WALKWAY</p> <p>Bill No. 2 Cluster 05 Nemorango Consulting Engineers</p> <p><u>BILL NO. 1</u></p> <p><u>EXTERNAL WORK</u></p> <p><u>BILL NO. 1</u></p> <p><u>EXTERNAL WORK</u></p> <p><u>For preambles see "Specifications of materials and methods to be used - PW 371"</u></p> <p>-</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>BUDGETARY ALLOWANCE</u></p> <p>The items described hereunder cover work which is not fully defined at tender stage and is intended to be executed by the contractor at rates to be agreed with the contractor in accordance with clause B1.9 of the Preliminaries at the time the work is defined. The amounts shown shall be used as directed by the Representative/Agent and shall be deducted in whole or in part if not required.</p> <p><u>STORMWATER DRAINAGE</u></p> <p><u>Site clearance</u></p> <p>1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs,bush and trees not exceeding 200mm girth, etc.</p> <p><u>EXCAVATION,FILLING, ETC</u></p> <p><u>Excavation in earth not exceeding 2m deep</u></p> <p>2 Excavations</p> <p><u>Extra over trench and hole excavations in earth for excavation:</u></p> <p>3 Soft rock</p> <p style="text-align: right;">Carried Forward</p>	<p>m2</p> <p>m3</p> <p>m3</p>	<p>140</p> <p>56</p> <p>53</p>		

Section No. 3 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
4	Hard rock	m3		5	
<u>Extra over all excavations for carting away:</u>					
5	Surplus material from excavations and/or stock piles on site	m3		14	
CONCRETE					
<u>Movement joints</u>					
6	Movement joint not exceeding 300mm high formed of 12mm bitumen impregnated softboard placed vertical in position between concrete stormwater channel and brick walls or concrete aprons, etc including raking out top section 10mm deep and filling with bituminous compound	m		14	
<u>Mass concrete with a coarse aggregate of 19mm and a minimum compressive strength of 15MPa at 28 days</u>					
7	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		11	
8	Extra for fair open end	No		6	
9	Extra for fair stopped end	No		6	
10	Extra for angle intersection	No		6	
Carried Forward					

Section No. 2 PRELIMINARIES AND GENERAL Bill No. 2 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
WALKWAY PAVEMENT					
<u>Site clearance</u>					
11	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush and trees not exceeding 200mm girth, etc.	m2		140	
12	Stripping average 100mm thick layer of top soil and stockpiling on site	m2		140	
<u>Open face excavation in earth over sloping site</u>					
13	<u>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 excavation seeding 2m deep</u>	m3		7	
<u>Compaction of surfaces</u>					
15	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2		100	
<u>Prescribed density tests on filling</u>					
16	"Modified AASHTO Density" test	m2		1	
Carried Forward					

	<p>Section No. 3 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Weedkiller (active ingredients metalaclor 102,8 g/l, terbitilasi 248,6 g/l and atrasi 248,6 g/l) mixed in the proportion of 100 ml weedkiller to 100 l water and applied at a rate of 10 l/m².</u></p> <p>1 Under paving etc</p> <p><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></p> <p>2 Formwork to sides of edges, risers, etc n.e. 300mm deep</p> <p>3 25Mpa/19mm unreinforced concrete edge beam</p>	<p>m²</p> <p>m</p> <p>m³</p>	<p>140</p> <p>140</p> <p>2</p>	<div style="background-color: yellow; height: 15px; width: 100%;"></div>
Carried Forward To Summary Of Section No. 3				

FENCING

Galvanised security fence with bitumen dipped steel standards and bitumen-aluminium painted (two coats) steel pipe posts, stays, gates, etc including galvanised steel bolts, straining eye bolts, etc, site clearance and preparation of ground:

1	Security fence 1.8m high vertically of Y section standards with 4 strands of 6mm straining wire tied to standards, posts and eye bolts and the vertical height covered with 50 x 50 x 3mm welded wire mesh tied at 450mm centres to each straining wire (water tanks and Grade R fencing)	m	200
2	Extra over for 32mm diameter inclined stay 1.8m long with one end bolted to post, including concrete base (steel palisade)	No	423
4	Extra over for 50mm diameter intermediate post 2.4m long vertically, including concrete base	No	20
8	Extra over for 100mm diameter straining or gate post 2.4m long vertically, including concrete base (steel palisade)	No	1
9	Gate of 32mm diameter framing, 900 x 1800mm high vertically with one diagonal brace, the vertical section covered with 50 x 50 x 3mm diamond wire mesh and the overhang with 4 strands of barbed wire, including hinges, heavy duty lockable barrel bolt and 75mm brass five-pin tumbler padlock (water tanks and Grade R Gate)	No	2

Undercoat and minimum 2 coat gloss enamel

3	Repainting of steel palisade fence	m2	0
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Carried Forward To Summary Of Section No. 3

WATER TANKS AND STANDS

TRADE PREAMBLES

Trade Preambles

For Trade Preambles refer to 'Model Preambles for Trades'

(1995 edition) for the full descriptions of material to be used

and work to be done in this Bill.

Reference shall be made to other trades and preambles for

preambles and full descriptions of items not fully described in this trade which shall apply equally to the work in this trade, unless otherwise described.

SUPPLEMENTARY PREAMBLES

Excavations:

No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. 'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.

Section No. 3 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers					
Brought Forward					
<u>EXCAVATION, FILLING, ETC</u>					
<u>Excavation in earth not exceeding 2m deep</u>					
10	Surface trenches.	m3		8	
	Extra over excavation in earth for excavation in				
11	Soft rock	m3		8	
12	Hard rock	m3		2	
	Extra over all excavations for carting away				
13	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3		2	
	Risk of collapse of excavations				
14	Sides of trench and hole excavations not exceeding 1,5m deep	m2		4	
	Keeping excavations free of water				
15	Keeping excavations free of all water other than subterranean water	Item		2	
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 90% Mod AASHTO density				
	Backfilling to trenches, holes, etc	m3		2	
	Compaction of surfaces				
17	Compaction of ground surface under floors, trenches, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 90% Mod AASHTO density	m2		100	
Carried Forward					

		Brought Forward		
	<u>Soil insecticide</u>			
18	To bottoms and sides of trenches, bases, etc	m2	100	
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>REINFORCED CONCRETE</u>			
	<u>20MPa/19mm concrete</u>			
19	In strip footings	m3	8	
	<u>25MPa/19mm concrete</u>			
20	Tank base	m3	2	
	<u>Sundries</u>			
21	Cast end of holding down bolt into top of concrete	No	32	
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>			
	<u>(CPAP Work group No. 111)</u>			
	Edges, risers, ends and reveals not exceeding 300 mm high.	m	40	
	<u>TEST BLOCKS</u>			
22	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	3	
	<u>REINFORCEMENT (PROVISIONAL)</u>			
	<u>Mild and high yield deformed type II (Y) steel reinforcement to concrete as described including all bending, hooked ends, binding wire and temporary supports</u>			
23	Mild steel bar reinforcement not exceeding 8 mm diameter	kg	8	
24	High yield deformed bar reinforcement exceeding 8 mm but not exceeding 12mm diameter (excluding 10mm diameter bars)	kg	8	
	<u>HIGH RISE WATER TANK</u>			
	<u>TRADE PREAMBLES</u>			
	-			
	<u>For Trade Preambles refer to 'Model Preambles for Trades'</u>			
	<u>(1995 edition) for the full descriptions of material to be used</u>			
	<u>and work to be done in this Bill.</u>			
	-			
	<u>Reference shall be made to other trades and preambles for</u>			
	<u>preambles and full descriptions of items not fully described in this trade which shall apply equally to the work in this trade, unless otherwise described.</u>			
	-			
	<u>GALVANISED MILD STEEL WATER SUPPLY PIPES</u>			
25	32mm Galvanised mild steel pipe and fixing to tank stand.	m	35	
	<u>Extra over galvanised mild steel water supply pipes for fittings:</u>			
26	32mm Bends.	No	10	
27	32mm Tee.	No	10	
	Carried Forward			

Section No. 3 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers					
	Brought Forward				
28	32mm Straight connector.	No		10	
29	32mm Union connector.	No		10	
30	32 to 20mm reducer.	No		10	
	<u>15mm Wall thickness "Thermaflex" or similar</u> <u>approved(thermal conductivity not to exceed</u> <u>0,045W/m.K) closed cell preformed extruded LDPE</u> <u>foam sleeve type pipe insulation with quick seal zip</u> <u>secured to pipes in accordance with the manufacturers</u> <u>instructions and including 0.5mm thick galvanised</u> <u>mild steel cladding</u> <u>around insulation.</u>				
31	Insulation to 32mm pipe and couplings.	m		10	
	<u>HDPE Class 6 water pipes:</u>				
33	32mm Pipes laid in and including trenches 900mm deep.	m		10	
	<u>Extra over HDPE pipes for "Plasson" or other</u> <u>approved</u> <u>fittings:</u>				
34	20mm Fittings.	No		10	
36	32mm Nipple.	No		10	
37	32mm Bend.	No		10	
38	32mm Tee.	No		10	
39	32mm Reducing Tee.	No		10	
	Carried Forward				

	<p>Section No. 3 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p> <p style="text-align: right;">Brought Forward</p> <p><u>Brass Fittings:</u></p> <p>40 32mm Stopcock with joint to steel as "Cobra 121".</p> <p>41 40mm Non-return valve with joints to steel.</p> <p><u>Cast Brass:</u></p> <p>42 32mm Fullway gate valve as Cobra Watertech 1001/125 with joints to mild steel.</p> <p>43 Stewards & Lloyds "No 3" Double action hand pump with joints to mild steel piping and fixing to brick wall with purpose made galvanised mild steel bracket bolted through 230mm thick wall.</p> <p><u>Valve box chambers, etc.</u></p> <p>44 Type 11B cast iron stopcock box hinged cover and frame, including 220 x 220 x 600mm deep brick chamber below, finished 50mm above ground level.</p> <p style="text-align: right;">Carried Forward</p>				<p style="text-align: right;">4</p> <p style="text-align: right;">4</p> <p style="text-align: right;">4</p> <p style="text-align: right;">2</p> <p style="text-align: right;">2</p>
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<p>Section No. 3 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05 Nemorango Consulting Engineers</p>	<p style="text-align: right;">Brought Forward</p> <p>Water Storage Tanks and Stands:</p> <p>WATER TANKS <u>Note: Rainwater tanks shall be without welded seams and of one piece moulded construction.</u></p> <p>45 5000 Litre plastic seamless water storage tank complete with fixing lugs and lid, fitted with and including 15mm brass bibtap with handle suitable for padlocking and setting in position on concrete tankstand (elsewhere measured) and tying down with 4mm diameter galvanised wire wrapped twice around centre of tank and secured to each corner of tank stand with a double strand of 4mm diameter galvanised wire embedded into concrete.</p> <p>45 10 000 Litre plastic seamless water storage tank complete with fixing lugs and lid, fitted with and including 15mm brass bibtap with handle suitable for padlocking and setting in position on concrete tankstand (elsewhere measured) and tying down with 4mm diameter galvanised wire wrapped twice around centre of tank and secured to each corner of tank stand with a double strand of 4mm diameter galvanised wire embedded into concrete.</p> <p>47 Hole through top of tank lid for 100 mm diameter pipe.</p> <p><u>The following in One (1 No) Tank Stands each size 1500 x 1500 x 4000 mm high overall formed of hot dip galvanised angle section legs, base plates, braces etc., including all welding, holes, bolts, nuts, washers, rivets, bolting, riveting, grinding smooth and fixing in position:</u></p> <p>600 x 600 x 650mm High 25MPa/19mm stone concrete base including all necessary excavations, formwork, backfilling, etc.</p> <p>48 16mm Diameter mild steel L-shaped holding down bolt 500mm girth with one end threaded and the other end cast into top of concrete base (elsewhere measured).</p> <p>49 Angle section legs, rails, braces, etc.</p> <p>50 20mm Diameter round bar rungs 360mm long.</p> <p style="text-align: right;">Carried Forward</p>				<p style="text-align: right;">1</p> <p style="text-align: right;">1</p> <p style="text-align: right;">4</p> <p style="text-align: right;">2</p> <p style="text-align: right;">32</p> <p style="text-align: right;">120</p> <p style="text-align: right;">6</p>
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Section No. 3 PRELIMINARIES AND GENERAL Bill No. 1 Cluster 05B Nemorango Consulting Engineers					
Brought Forward					
51	Bolts, nuts, washers, etc.	kg		4	
<u>Creosote treated sawn softwood.</u>					
52	25 x 100mm Edge strip 1 700mm long.	No		8	
53	76 x 114mm Bearers 1700mm long.	No		8	
54	Supply and install drinking fountains complete including 15MPA/19mm concrete bedding and concrete channel	No		2	
<u>TESTING</u>					
55	Allow for testing all drains, and water supplies to the satisfaction of the Representative. All defective work is to be taken out and replaced at the Contractor's expense.	Item		2	
Carried Forward					

ITEM	DESCRIPTION		QTY	RATE	AMOUNT
B	<u>Septic tank:</u>				
B.1	Excavate in soft material exceeding 2m deep.	m ³	76,1		
B.2	Extra over septic tank excavations for carting away surplus material from excavations or stock piles to a dumping site to be located by the Contractor.	m ³	16		
B.3	Risk of collapse to sides septic tank excavations not exceeding 1,5m deep.	m ²	10,8		
B.4	Earthfilling obtained from the excavations or stock piles compacted to 93% in septic tank.	m ³	7,5		
B.5	Modified AASHTO density tests	No	2,1		
B.6	Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	Item	1		
B.8	25 MPa Reinforced concrete top slab.	m ³	3		
B.9	25 MPa Reinforced concrete base.	m ³	3		
B.10	Selected rubble filling.	m ³	11,6		
B.11	Backfilling to sides of septic tank.	m ³	27,5		
B.12	Type 395 fabric reinforcement in concrete surface beds, floor slabs, etc.	m ²	18,4		
B.13	Rough formwork to soffit of slab.	m ²	27,5		
B.14	Plaster to vertical surfaces.	m ²	60		
B.15	two brick wall in commons including wire ties for septic tank walls.	m ²	23,12		
B.16	Lintels as permanent shatters	m	3,7		
B.17	600 x 600mm Cast iron manhole covers	No	2,1		
C	<u>Pipework</u>				
C.1	Extra over excavation in soft material for pipe trenches, chambers, etc. for excavation in intermediate material.	m ³	32		
C.2	Connecting 110mm uPVC pipe including 110mm channel junction and making good concrete benching.	No	2		
C.3	Connecting 160mm pipe including inserting 160mm channel junction and making good concrete benching.	No	2		
C.4	Allow for testing the complete drainage installation by visual and Air Pressure test to the satisfaction of the Employer. (All defective work to be replaced at the Contractor's expense).	Item	1		
C.5	160mm uPVC slotted drainage pipe laid in and including trench not exceeding 1,00m deep with 500 x 500mm washed 25mm stone casing wrapped in u24 non-woven, spun-bonded, punched continuous polyester fabric, including fill, ram, carting away, etc.	m	32		
Carried forward					

FINAL SUMMARY				
Bill No. 1				
Cluster 05				
Nemorango Consulting Engineers				
FINAL SUMMARY				
PRELIMINARIES AND GENERAL				R -
RENOVATIONS AND ALTERATIONS				R -
BUILDING WORKS (MD1)				R -
BUILDING WORKS (FD2)				R -
BUILDING WORKS (GRMD1)				R -
BUILDING WORKS (GRFD2)				R -
BUILDING WORKS (MD3)				R -
BUILDING WORKS (FD6)				R -
EXTERNAL WORKS (STORMWATER AND WALKWAY)				R -
EXTERNAL WORKS (FENCING)				R -
EXTERNAL WORKS (WATER TANKS AND STANDS)				R -
SEPTIC TANK				R -
ALTERATIONS				R -
SUB TOTAL (A)				R -
Provide 10% (TEN PERCENT) on Sub-total (A) as contingency to be deducted in whole or in part if not required	%		10	R -
SUB TOTAL (B)				R -
Add VAlue Added Tax @ 15%	%		15	R -
Carried To Final Cluster 05 To Form Of Offer				R -
Cluster 05				
Nemorango Consulting Engineers				