

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>BUILDING AGREEMENT AND PRELIMINARIES</u></p> <p>The agreement is to be the JBCC Series 2000 Principal Building Agreement, 6.2 Edition May 2018, and other contract documents that together form the contract between the employer and contractor</p> <p>The JBCC Principal Building Agreement contract data form an integral part of this agreement</p> <p>The ASAQS Preliminaries (March 2014 edition) published by the Association of South African Quantity Surveyors for use with the JBCC Principal Building Agreement shall be deemed to be incorporated in these bills of quantities</p> <p>The contractor is deemed to have referred to the above mentioned documents for the full intent and meaning of each clause</p> <p>The clauses in the above mentioned documents are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this agreement 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 to the contrary contained in the above mentioned documents</p> <p>Where any item is not relevant to this agreement such item is marked N/A (signifying "not applicable")</p>			
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Brought Forward		R	
<u>PREAMBLES FOR TRADES</u>			
<p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p>			
<p>Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the Model Preambles</p>			
<p>The contractor's prices for all items throughout these bills of quantities shall take account of and include for all of the obligations, requirements and specifications given in the Model Preambles and in any supplementary preambles</p>			
<u>PRICING OF PRELIMINARIES</u>			
<p>Should the contractor select Option A in terms of clause 26.9.4 of the contract data for the purpose of adjustment of these preliminaries, the amount entered into the amount column in these preliminaries is to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)</p>			
<u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u>			
<u>Interpretation</u>			
1 Definitions and Interpretation (Clause 1)			
F:..... V:..... T:.....	Item		
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	Brought Forward			R	
2	<p>Law, Regulations and Notices (Clause 2)</p> <p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification</p> <p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply to all OHS requirements stipulated in the Occupational Health and Safety Act 85 of 1993 (Construction Regulations) 2. Comply with the health and safety specification for the works 3. Prepare and agree with the health and safety consultant the health and safety plan for the works 4. Co-operate with the health and safety consultant in all respect 5. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 6. Conform to the conditions contained in the employer's safety specification <p>On appointing any other contractor, in order to ensure compliance with the provisions of the Act:</p> <ul style="list-style-type: none"> · Provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications contemplated pertaining to the construction work which has to be performed · Make sufficient provision for health and safety measures during the construction process · Ensure that no contractor is appointed to perform construction work unless the principal 				
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	<p>contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely.</p> <ul style="list-style-type: none"> Ensure all OHS required legislation is in place prior to work commencing <p>F:..... V:..... T:.....</p>	Item		
3	Offer and Acceptance (Clause 3)			
	<p>F:..... V:..... T:.....</p>	Item		
4	Cession and Assignment (Clause 4)			
	<p>F:..... V:..... T:.....</p>	Item		
5	Documents (Clause 5)			
	<p>F:..... V:..... T:.....</p>	Item		
6	Employer's Agents (Clause 6)			
	<p>F:..... V:..... T:.....</p>	Item		
7	Design Responsibility (Clause 7)			
	<p>F:..... V:..... T:.....</p>	Item		
	<u>Insurance and Security</u>			
8	Works Risk (Clause 8)			
	<p>F:..... V:..... T:.....</p>	Item		
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9	Indemnities (Clause 9) F:..... V:..... T:.....	Item		
10	Insurances (Clause 10) F:..... V:..... T:.....	Item		
11	Security (Clause 11) Refer to Contract Data for specifics F:..... V:..... T:.....	Item		
	<u>Execution</u>			
12	Obligations of the Parties (Clause 12) F:..... V:..... T:.....	Item		
13	Setting out (Clause 13) Encroachments The contractor shall notify the principal agent if any encroachment of adjoining foundations, buildings, structures, pavements, boundaries, services, etc exist in order that the necessary arrangements may be made for the rectification of any such encroachments F:..... V:..... T:.....	Item		
14	Nominated Subcontractors (Clause 14) F:..... V:..... T:.....	Item		
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15	<p>Selected Subcontractors (Clause 15)</p> <p>F:..... V:..... T:.....</p>	Item		
16	<p>Direct Contractors (Clause 16)</p> <p>Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials</p> <p>Allow the use of personnel welfare facilities, where provided</p> <p>Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation</p> <p>Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right while it remains erected on the site [16.1]</p> <p>F:..... V:..... T:.....</p>	Item		
17	<p>Contract instructions (Clause 17)</p> <p>Site Instructions</p> <p>Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>F:..... V:..... T:.....</p> <p><u>Completion</u></p>	Item		
18	<p>Interim Completion (Clause 18)</p> <p>F:..... V:..... T:.....</p>	Item		
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Brought Forward			R	
19	Practical Completion (Clause 19) F:..... V:..... T:.....	Item		
20	Completion in sections (Clause 20) F:..... V:..... T:.....	Item		
21	Defects Liability Period and Final Completion (Clause 21) F:..... V:..... T:.....	Item		
22	Latent defects liability period (Clause 22)	Item		
23	Revision of Date for Practical Completion (Clause 23) The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8, 23.1 & 2] F:..... V:..... T:.....	Item		
24	Penalty for Late or Non-Completion (Clause 24) F:..... V:..... T:.....	Item		
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	Brought Forward		R	
	<u>Payment</u>			
25	<p>Payment (Clause 25)</p> <p>Materials and goods stored off site</p> <p>Materials and goods stored off site shall not be included in the amount authorised for payment unless Advanced Payment Guarantee provided</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the Contractor</p> <p>Prices submitted</p> <p>Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the agreement 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 certificate of final completion, it shall be in writing</p> <p>F:..... V:..... T:.....</p>	Item		
26	<p>Adjustment of the Contract Value and Final Account (Clause 26)</p> <p>Cost of claims</p> <p>All costs incurred by the contractor in the preparation of claims shall be borne by the contractor The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation to assist the principal agent in adjudicating the claim [26.6]</p> <p>F:..... V:..... T:.....</p>	Item		
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27	Recovery for Late and/or Loss (Clause 27) F:..... V:..... T:.....	Item		
	<u>Suspension and Termination</u>			
28	Suspension by the Contractor (Clause 28) F:..... V:..... T:.....	Item		
29	Termination (Clause 29) F:..... V:..... T:.....	Item		
	<u>Dispute Resolution</u>			
30	Dispute Resolution (Clause 30) F:..... V:..... T:.....	Item		
	<u>SECTION B: PRELIMINARIES</u>			
	<u>Definition and interpretation</u>			
31	Definitions (Clause 1.1) F:..... V:..... T:.....	Item		
32	Interpretation (Clause 1.2) F:..... V:..... T:.....	Item		
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	<u>Documents (B2)</u>			
33	Checking of documents (Clause 2.1) F:..... V:..... T:.....	Item		
34	Provisional bills of quantities (Clause 2.2) F:..... V:..... T:.....	Item		
35	Availability of construction documentation (Clause 2.3) The budgetary allowances and selected subcontract amounts allocated for subsequent trades included in this document will be separately procured, based on selected subcontractors during the construction period F:..... V:..... T:.....	Item		
	<u>Previous work and adjoining properties</u>			
36	Previous work - dimensional accuracy (Clause 3.1) F:..... V:..... T:.....	Item		
37	Previous work - defects (Clause 3.2) F:..... V:..... T:.....	Item		
38	Inspection of adjoining properties (Clause 3.3) F:..... V:..... T:.....	Item		
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	Brought Forward		R	
	<u>Samples and shop drawings</u>			
39	Samples of materials (Clause 4.1)			
	F:..... V:..... T:.....	Item		
40	Workmanship samples (Clause 4.2)			
	F:..... V:..... T:.....	Item		
41	Shop drawings (Clause 4.3)			
	F:..... V:..... T:.....	Item		
42	Compliance with manufacturer's instructions (Clause 4.4)			
	F:..... V:..... T:.....	Item		
	<u>Deposits and fees</u>			
43	Deposits and fees (Clause 5.1)			
	F :..... V:..... T:.....	Item		
	<u>Temporary Services</u>			
44	Water (Clause 6.1)			
	F:..... V:..... T:.....	Item		
45	Electricity (Clause 6.2)			
	F:..... V:..... T:.....	Item		
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Brought Forward			R	
46	Ablution facilities (Clause 6.3) F:..... V:..... T:.....	Item		
47	Communication facilities (Clause 6.4) F:..... V:..... T:.....	Item		
<u>Prime cost amounts</u>				
48	Responsibility for prime cost amounts (Clause 7.1) F :..... V:..... T:.....	Item		
<u>Special attendance on N/S subcontractors</u>				
49	Special attendance (Clause 8.1) F:..... V:..... T:.....	Item		
<u>General</u>				
50	Protection of works (Clause 9.1) F:..... V:..... T:.....	Item		
51	Protection/isolation of existing/sectionally occupied works (Clause 9.2) F:..... V:..... T:.....	Item		
52	Security of the works (Clause 9.3) F:..... V:..... T:.....	Item		
Carried Forward			R	
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Brought Forward			R	
53	Notice before covering work (Clause 9.4) F:..... V:..... T:.....	Item		
54	Disturbance (Clause 9.5) F:..... V:..... T:.....	Item		
55	Environmental disturbance (Clause 9.6) Controlling all forms of pollution The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution during the construction period due <i>inter alia</i> to noise, artificial light, wind-blown sand, dust, deposits of mud, etc The contractor is to ensure that all roads which border the site and is used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works Environmental management plan The employer has prepared an environmental management plan (EMP) (Part C4 : Site Information, Clause C4.7 for a copy of the relevant plan). The contractor shall price opposite this item for compliance with all the requirements of such EMP F:..... V:..... T:.....	Item		
56	Works cleaning and clearing (Clause 9.7) F:..... V:..... T:.....	Item		
Carried Forward			R	
SECTION 1 Bill No. 1 Preliminaries				

	Brought Forward		R	
57	<p>Vermin (Clause 9.8)</p> <p>F:..... V:..... T:.....</p>	Item		
58	<p>Overhand work (Clause 9.9)</p> <p>F:..... V:..... T:.....</p> <p><u>Schedule</u></p> <p>Information necessary for elections and completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder. Where no information is given, it shall mean that no specific requirements are expected or that the clause is not relevant to this specific contract</p> <p>10.1 Provisional bills of quantities (B2.2) The quantities are provisional: [Yes]</p> <p>10.2 Availability of construction documentation (B2.3) Construction documentation is complete [Yes]</p> <p>10.3 Previous work - dimensional accuracy (Clause 3.1) Contractor to inspect dimensions on the drawings against previous work prior or execution [Yes]</p> <p>10.4 Previous work - defects (Clause 3.2) Contractor to inspect previous work and bring to the attention of the Principal Agent should there be noticeable defects [No]</p>	Item		
	Carried Forward		R	
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	Brought Forward		R	
10.5	Inspection of adjoining properties (Clause 3.3) [No]			
10.6	Water (Clause 6.1) Option A (by Contractor) [No] Option B (by Employer - free of charge) [Yes] Option C (by Employer - metered) [No]			
10.7	Electricity (Clause 6.2) Option A (by Contractor) [No] Option B (by Employer - free of charge) [Yes] Option C (by Employer - metered) [No]			
10.8	Ablution facilities (Clause 6.3) Option A (by Contractor) [No] Option B (by Employer - free of charge) [Yes] Option C (by Employer - metered) [No]			
10.9	Telecommunications (Clause 6.4) Option A (by contractor) [Yes] Option B (by employer) [No]			
10.10	Protection of the works [Clause 9.1] [Yes]			
10.11	Protection of existing/sectionally occupied works (Clause 9.2) [Yes]			
10.12	Disturbance (Clause 9.5) [Yes]			
10.13	Environmental disturbance (Clause 9.6) [No]			
	Carried Forward		R	
SECTION 1 Bill No. 1 Preliminaries				

Brought Forward			R	
<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 General Conditions are included				
59	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		
60	Warranties for material and workmanship			
Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, 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 warranty shall state that workmanship, materials and installation are warranted for a specified period from the date of final completion 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 to do so The warranty 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				
F :..... V:..... T:.....		Item		
Carried Forward			R	
SECTION 1 Bill No. 1 Preliminaries				

Brought Forward			R	
61	<p>Co-operation of contractor for cost management</p> <p>It is specifically agreed that the contractor accepts the obligation of assisting the principal agent 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 principal agent undertakes to make available to the contractor all budgetary allowances and cost assessments / reports to enable the proper procedure to be implemented and the contractor shall attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures, as necessary, to all subcontractors</p> <p>F:..... V:..... T:.....</p>	Item		
62	<p>Testing of windows for water tightness</p> <p>Each window shall be tested for water tightness with water sprayed on using adequate pressure. If in the opinion of the principal agent, the pressure proves to be inadequate, then the pressure shall be boosted by means of compressed air or other approved means</p> <p>F:..... V:..... T:.....</p>	Item		
Carried to Final Summary			R	
SECTION 1				
Bill No. 1				
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Item No		Quantity	Rate	Amount
	<p><u>BILL NO 1</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Cost of tests</p> <p>The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p>			
	Carried Forward		R	
	<p>SECTION 2</p> <p>Bill No. 1</p> <p>Concrete, Formwork and Reinforcement</p>			

	Brought Forward			R	
	<p>Formwork</p> <p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p> <p>Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described.</p> <p>Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p> <p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p><u>25MPa/19mm concrete</u></p> <p>1 Surface beds on top of existing concrete m3 170</p> <p>2 Surface beds on waterproofing m3 143</p> <p><u>30MPa/19mm concrete</u></p> <p>3 Slabs, including beams and inverted beams m3 182</p> <p><u>TEST CUBES</u></p> <p>4 Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional) No 85</p>				
	Carried Forward			R	
	<p>SECTION 2</p> <p>Bill No. 1</p> <p>Concrete, Formwork and Reinforcement</p>				

Brought Forward			R	
<u>CONCRETE SUNDRIES</u>				
<u>Finishing top surfaces of concrete smooth with a power float</u>				
5	Surface beds, slabs, etc	m2	1 845	
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY I)</u>				
<u>Smooth formwork to soffits</u>				
6	Slabs propped up exceeding 1,50m but not exceeding 3,5m high	m2	639	
<u>MOVEMENT JOINTS ETC</u>				
<u>Expansion joints with bitumen impregnated softboard between vertical concrete surfaces:</u>				
7	10mm Joints not exceeding 300mm high.	m	230	
<u>Saw cut joints</u>				
8	3 x 40mm Deep saw cut joints in top of concrete	m	180	
<u>REINFORCEMENT (PROVISIONAL)</u>				
<u>Mild and high tensile steel reinforcement to structural concrete work</u>				
9	Various diameter bars	t	75.00	
<u>Fabric Reinforcement</u>				
10	Type 245 fabric reinforcement in concrete surface beds, slabs, etc	m2	1 273	
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 1				
Concrete, Formwork and Reinforcement				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO 2</u></p> <p><u>MASONRY</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Sizes in descriptions</u></p> <p><u>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</u></p> <p><u>Hollow walls etc</u></p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixel" bitumen emulsion waterproofing coating.</p> <p><u>User note:</u></p> <p>The above preamble generally applies for works in hot and humid coastal areas</p> <p><u>Face bricks</u></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p>			
	Carried Forward		R	
	<p>SECTION 2 Bill No. 2 Masonry</p>			

	Brought Forward			R	
	<u>Pointing</u>				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	<u>DECORATIVE BLOCKS</u>				
	Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour				
	<u>SAMPLES</u>				
	Samples of all masonry building units, except those for walls described as "load bearing", shall consist of a minimum of 6 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				
	<u>SUPERSTRUCTURE</u>				
	<u>Brickwork of "Corobrik NFP" or similar approved bricks inclass II mortar:</u>				
1	Half brick walls	m2	370		
2	Half brick walls in beam filling	m2	74		
3	Half brick walls in screen walls	m2	22		
4	One brick walls	m2	1 103		
	<u>BRICKWORK SUNDRIES</u>				
	<u>Joint forming material in movement joints</u>				
5	10mm "SikaFlex 35SL" or similar approved soft board built in vertically between concrete surfaces including 10 x 10mm polyethelene backing bond breaker	m2	406		
	<u>Brickwork reinforcement</u>				
6	75mm Wide reinforcement built in horizontally	m	58		
	Carried Forward			R	
	SECTION 2 Bill No. 2 Masonry				

Brought Forward				R	
7	150mm Wide reinforcement built in horizontally	m	4 043		
	<u>Turning pieces</u>				
8	230mm Wide turning piece to lintels etc	m	3		
	<u>Air bricks etc</u>				
9	229 x 152mm Clay vermin proof air brick	No	18		
	<u>White plastic air vent</u>				
10	White plastic air vent size 235 x 157mm fixed to wall with white cement mortar	No	18		
	<u>Galvanised hoop iron cramps, ties, etc</u>				
11	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork	No	35		
12	"Dalclamp FT200HR" wall tie 20mm long with one end shot pinned to concrete or brickwork and the other end built into brickwork	No	2 272		
Carried Forward to Summary of Section No. 2				R	
SECTION 2					
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Masonry					

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<p><u>BILL NO 3</u></p> <p><u>MASONRY</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Waterproofing</p> <p>Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><u>DAMPPROOFING OF WALLS AND FLOORS</u></p> <p><u>One layer of 250 micron "Consol Plastics Gunplas USB Green" or similar approved waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u></p>			
1	Under surface beds	m2	572
Carried Forward to Summary of Section No. 2			R
<p>SECTION 2</p> <p>Bill No. 3</p> <p>Waterproofing</p>			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO 4</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Particle board:</u></p> <p>Particle board shall comply with the following specifications:</p> <p>a) SABS 1300 Particle board: exterior and flooring type</p> <p>b) SABS 1301 Particle board: interior type</p> <p><u>Joinery:</u></p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p><u>Fixing</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p><u>Decorative laminate finish:</u></p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish</p>			
	Carried Forward		R	
	<p>SECTION 2</p> <p>Bill No. 4</p> <p>Carpentry and Joinery</p>			

Brought Forward			R
<u>EAVES, VERGES, ETC</u>			
<u>Everite Nutec medium density fibre-cement</u>			
1	10 x 225mm Fascia boards including Everite chroma-prep H-profile jointing strips	m	65
<u>DOORS, ETC</u>			
<u>Medium Duty (SABS 545) hollow core timber doors with masonite honeycomb finish and lock set slot</u>			
2	Single door size 813 x 2032mm high hung to steel door frame (door frame elsewhere measured), D1	No	11
3	Single door size 762 x 2032mm high hung to steel jambs (steel jambs elsewhere measured), D6	No	6
<u>Medium Duty (SABS 545) semi-solid core timber doors with masonite honeycomb finish and lock set slot</u>			
4	Single door size 813 x 2032mm high hung to steel door frame (door frame elsewhere measured), D2	No	2
5	Single door size 945 x 2032mm high hung to steel door frame (door frame elsewhere measured), D3	No	1
6	Single door size 1800 x 2032mm high hung to steel door frame (door frame elsewhere measured), D12	No	2
Carried Forward			R
SECTION 2 Bill No. 4 Carpentry and Joinery			

Brought Forward				R	
<u>JOINERY FITTINGS</u>					
<u>Goods Receiving Operations Manager Office Counter and or Cupboard</u>					
7	8525mm Long overall x 600mm wide x 900mm high overall L-shaped floor and wall mounted counter and cupboard comprising 32mm "Bison Dura" or similar approved water resistant particle board with bullnosed edge, laminated with 1mm thick "Formica" or similar approved high pressure laminate HG and post formed in storm grey (423), with a reverse side "Formica HPL-BK" or similar approved brown backer, with exposed edges covered with matching edging, worktop fixed to walls with timber supports over cupboard, cupboard carcass to comprise 16mm thick "Bison Melawood" or similar approved with exposed edges to receive matching edging, cupboard door to be 765mm x 556mm x 16mm thick with edging to all sides fixed to carcass with 3 dimensionally adjustable, 165 degrees opening overlay type "Grass Twistlock 4000 series" or similar approved hinges, two per door, shelf to be 600mm deep x 16mm thick, supported on "Grass M41" or similar approved nylon brackets with exposed edges to receive matching edging, skirting to be 75mm high x 16mm thick timber support to base with exposed edges to receive matching edging, all to be strictly as detailed in Drawing Number WD 700 annexed to these Bills of Quantities	No	1		
<u>Security Office Counter</u>					
8	4770mm Long overall x 600mm wide x 900mm high overall L-shaped wall mounted counter comprising 32mm "Bison Dura" or similar approved water resistant particle board with bullnosed edge, laminated with 1mm thick "Formica" or similar approved high pressure laminate HG and post formed in storm grey (423), with a reverse side "Formica HPL-BK" or similar approved brown backer, with exposed edges covered with matching edging, worktop fixed to walls with supports, all to be strictly as detailed in Drawing Number WD 700 and WD 220 annexed to these Bills of Quantities	No	1		
Carried Forward				R	
SECTION 2 Bill No. 4 Carpentry and Joinery					

Brought Forward					
	<u>Bathroom Vanities</u>			R	
9	Approximately 1200mm Long x 600mm wide x 488mm high overall, bathroom vanity comprising 32mm thick x 600mm wide Grade A "Rustenburg Black" or similar approved granite top with a bullnosed front edge, 32 x 300mm high vertical cover with a bullnosed and polished exposed bottom edge, and 32 x 188mm high splash back including cutting two holes for wash hand basin (wash hand basin elsewhere measured), all fixed to walls with steel bracked as detailed in Drawing Number WD 700 and annexed to these Bills of Quantities	No	1		
Carried Forward to Summary of Section No. 2				R	
SECTION 2 Bill No. 4 Carpentry and Joinery					

Item No		Quantity	Rate	Amount
	<p><u>BILL NO 5</u></p> <p><u>CEILINGS PARTITIONS AND ACCESSFLOORING</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions:</u></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <p><u>SUSPENDED CEILINGS</u></p> <p><u>Proprietary suspended ceilings</u></p> <p><u>Note:</u></p> <p>Electrical light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility inseting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)</p>			
	Carried Forward		R	
	<p>SECTION 2</p> <p>Bill No. 5</p> <p>Ceilings</p>			

Brought Forward			R	
<p><u>User note:</u></p> <p>a) The above note to be included in the bills of quantities after confirmation of the basic design of the ceilings, lighting, air conditioning, etc</p> <p>Electric light fittings, diffusers, panels, etc., generally are 'lay-in' units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof).</p> <p><u>SUSPENDED CEILINGS:</u></p> <p><u>600 x 1200 x 15mm Thick "Owacoustic Future 60 GreenPremium Mineral Wool" or similar approved ceiling tiles onexposed pre-painted tee suspension system, includingmain and cross tees, necessary galvanised steel hangersat centres not exceeding 1200mm, grids, sub grids etc.:</u></p>				
1	Ceilings suspended not exceeding 4m below concrete soffits	m2	444	
Carried Forward to Summary of Section No. 2				R
SECTION 2				
Bill No. 5				
Ceilings				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO 6</u></p> <p><u>FLOOR COVERINGS</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Synthetic resin overlays are not installed to upgrade sub-standard bases, but rather to enhance and protect the virtues of well designed ones</p> <p>The thickness and cost of resin mortar flooring is such that it is not practical to use the flooring system to correct the levels of a substrate that is out of tolerance. For this reason, the substrate must be laid to the same tolerances as required for the finished resin mortar flooring. It is important that the new concrete floor complies with the following details:</p> <p>a) The minimum quality to be Grade II as per SABS 1200 G specification. This is a maximum permissible deviation from flatness of 5mm under a 3m straight edge supported at both ends on blocks of equal thickness. Abrupt departures from a plane flat surface such as ridges, grooves, steps are not acceptable</p> <p>b) It must withstand the dynamic and static loads to which it will be subjected.</p> <p>c) A suitable water tight membrane must be installed to contain rising water.</p> <p>d) Where no damp proof membranes are present - Flowcem DPM must be installed prior to any installations of Floors taking place.</p> <p>e) All necessary joints, crack inducer saw cuts, edge /border strips or profiles are to be provided in the</p> <p style="text-align: right;">Carried Forward</p> <p>SECTION 2 Bill No. 6 Floor Coverings</p>			
			R	

<p style="text-align: center;">Brought Forward</p> <p>base.</p> <p>f) All slopes, hips, valleys are to be included in the base construction and to ensure free run off of liquids. A minimum fall of 1:60 is advised.</p> <p>g) The base is to be a minimum of 28 days old. After curing the residual moisture content in the base shall not exceed 4% when measured on an acceptable electronic moisture metre.</p> <p>The minimum strength requirements to be: Compressive 20N/mm² / Tensile Strength 2.0N/mm²</p> <p>Granolithic screeds are to be well bonded, with a minimum thickness of 30mm.</p> <p>The base is to be finished level and smooth with a single pass steel trowel finish, but not polished</p> <p>Floor hardener finishings, cement powder finishings, curing membranes, silicones or oil must not be present in the base</p> <p><u>FLOOR COVERINGS</u></p> <p><u>"Flowcrete Flowshield 2000" or similar approved 2mm thick self levelling epoxy flooring on screeded concrete floors</u></p> <p>1 Scarify and sweep clean new screed, cut anchor grooves at floor/wall junctions and drains at 8 x 8mm, prime entire area using Flow prime at 4m² per litre, install vertical skirting at 150mm and coved radius at 35mm using Flowcrete F1 coving mortar, apply 2mm thick Flowshield 2000, once cured, the movement joints must be re-cut to original geometry and filled with Flowtex HM flexible joint sealant, all in strict accordance with manufacturer's instructions.</p>		R	
<p style="text-align: center;">Carried Forward</p> <p>SECTION 2 Bill No. 6 Floor Coverings</p>	m2	702	R

Brought Forward				R	
	<p><u>"Flowcrete Flowshield 2000" or similar approved 2mm thick self levelling epoxy flooring and CR Sealer on screeded concrete floors</u></p>				
2	<p>Scarify and sweep clean new screed, cut anchor grooves at floor/wall junctions and drains at 8 x 8mm, prime entire area using Flowprime at 4m2 per litre, install vertical skirting at 150mm and coved radius at 35mm using Flowcrete F1 coving mortar, apply 2mm thick Flowshield 2000, finish entire floor with 2 coats of CR Sealer coat matt coating at 8m2 per litre, all in strict accordance with manufacturer's instructions. Once cured, the movement joints must be re-cut to original geometry and filled with Flowtex HM flexible joint sealant</p>	m2	5 766		
	<p><u>Flooring on screeded concrete floors</u></p>				
	<p><u>"Flowcrete Deckshield ID" or similar approved epoxy flooring on screeded concrete floors</u></p>				
3	<p>Vacuum blast floor to attain suitable key and condition, and vacuum thoroughly to remove all shot, prime the entire area with Deckshield LXP Primer at 0.7 kilograms per litre and dress up verticals to desired height, then scatter silica quartz (0.3-0.65mm aggregate) at 1.5 kilograms per m2 and allow to cure, dust off all excess aggregate and sweep clean, apply Deckshield Finish at 0.6 kilograms per m2 and allow to cure, finish system with one coat Deckshield UV at 10m2 per litre and allow to cure, all to be in strict accordance to manufacturer's instructions</p>	m2	95		
	<p><u>"Flowcrete Flowtex CR" or similar approved heavy duty slip resistant epoxy flooring on screeded concrete floors</u></p>				
4	<p>Vacuum blast screed to ensure correct profile for installation and vacuum clean, seal substrate and coved skirting using Flowprime solvent free resin at 4m2 per litre and allow curing, install vertical skirting at 150mm with coved radius at 35mm, apply heavy duty slip resistant Flowtex CR at 6mm and allow curing, all applied in accordance with manufacturer's instructions</p>	m2	201		
Carried Forward				R	
<p>SECTION 2 Bill No. 6 Floor Coverings</p>					

Brought Forward			R	
	<u>"Flowcrete Peran PTS" or similar approved heavy duty slip and chemical resistant epoxy flooring on screeded concrete floors</u>			
5	Vacuum blast screed to ensure correct profile for installation and vacuum clean, seal substrate and coved skirting using Flowprime solvent free resin at 4m2 per litre and allow curing, install vertical skirting at 150mm with coved radius at 35mm, scatter B&E, 1.1mm at 1 kilogram per m2, apply STB slurry at 1.6 litres per m2, as per method statement, scatter natural quartz at 4.5 kilograms per m2 into STB Slurry coat, power float area to achieve uniform finish and allow curing, apply heavy duty slip and chemical resistant CR Coat at 0.5m2 per litre and allow curing, all applied in accordance with manufacturer's instructions	m2	181	
	<u>Antistatic floor tiles</u>			
6	FloorworX FloorworX SD fully flexible heavy duty vinyl floor tiles 608 x 608 x 2,0mm thick in Ivory finish (Colour code: FSD0030), manufactured in accordance with EN 649, laid in FloorworX No. 27 antistatic/conductive adhesive spread with a Vicker A24F trowel at a rate of between 3.0m ² and 3.5m ² per litre on suitably prepared subfloor (elsewhere specified) with a hygrometer reading showing a moisture content of less than 70% and rolled with 68kg three section metal roller on completion.	m2	8	
	<u>CARPET TILES</u>			
	<u>500 x 500mm Belgotex or similar approved carpet tiles laid on adhesive</u>			
7	On screeded floors (screed elsewhere measured)	m2	545	
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 6				
Floor Coverings				

Item No		Quantity	Rate	Amount
	<u>BILL NO 7</u>			
	<u>IRONMONGERY</u>			
	<u>STANDARD PREAMBLES</u>			
	The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Finishes to ironmongery</u>			
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:			
	<ul style="list-style-type: none"> • BS Satin bronze lacquered • CH Chromium plated • SC Satin chromium plated • SE Silver enamelled • GE Grey enamelled • AS Anodised silver • AB Anodised bronze • AG Anodised gold • ABL Anodised black • PB Polished brass • PL Polished and lacquered • PT Epoxy coated • SD Sanded 			
	<u>LOCKS</u>			
	<u>Dorma or similar approved</u>			
1	Dorma D036S or similar approved multi-lever sash lock	No	15	
2	Dorma D036S or similar approved Euro-profile or similar approved sash lock	No	6	
3	Dorma DDC056501, 65mm or similar approved Euro-profile double cylinder lock	No	2	
	Carried Forward			
	SECTION 2 Bill No. 7 Ironmongery			
			R	

**SARS CUSTOMS
NEW PIER STATE WAREHOUSE
GATE 5 BAYHEAD ROAD
BAYHEAD, DURBAN**

Brought Forward			R	
4	Ironware Calini 1904-24SS screw type rose or similar approved escutcheon	No	23	
5	Ironware B02 or similar approved indicator bolt	No	6	
6	Ironware 2031 or similar approved dead lock	No	1	
7	Dorma D039R or similar approved lockset with rebated meeting stiles comprising dust excluding socket 4023 and 150mm flush lever bolt	No	4	
<u>HANDLES</u>				
<u>'Ironware or similar approved'</u>				
8	Calini 1019 brushed stainless steel through fix level handle	No	42	
9	Code 1926, Brushed stainless steel indicator handle	No	1	
<u>LETTERS, NAMEPLATES, ETC</u>				
<u>'Ironware or similar approved'</u>				
10	Ironware IP01 or similar approved male ablution sign	No	2	
11	Ironware IP02 or similar approved female ablution sign	No	1	
12	945 x 200 x 2mm Thick brushed stainless steel kick plates	No	2	
<u>DOOR CLOSERS</u>				
<u>Ironware IW or similar approved</u>				
13	Ironware DC01 or similar approved door closer	No	12	
14	Geze TS 4000G DA EN1-6 delayed action slide channel silver door closer	No	1	
Carried Forward			R	
SECTION 2 Bill No. 7 Ironmongery				

Brought Forward			R	
<u>BATHROOM FITTINGS</u>				
<u>"Franke"</u>				
15	Franke STRX67stainless steel lockable toilet roll holder fixed to wall as per manufactures' instructions	No	15	
<u>"Servest Hygiene"</u>				
16	Solar TH Dis-Stain-081 similar and equal approved stainless steel soap dispenser or fixed to brickwork or concrete	No	11	
<u>"Bradleycorp" or similar approved stainless steel shower curtain rails with concealed fixing mechanism to walls</u>				
17	900mm Long curtain rail	No	2	
<u>Grab rails, etc</u>				
18	Ironware 1306 or similar approved grab rails	No	2	
19	Geze or similar approved lintel bracket	No	1	
<u>SUNDRIES</u>				
<u>Ironware 5034 or similar approved</u>				
20	Rubber tipped coat and hat hook plugged	No	2	
<u>Ironware 5000 or similar approved</u>				
21	Cylindrical door stop	No	19	
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 7				
Ironmongery				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO 8</u></p> <p><u>METALWORK</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p><u>GALVANIZED MILD STEEL FENCING, GATES, BALUSTRADES, ETC.</u></p> <p><u>Galvanized mild steel mesh fencing</u></p>			
1	<p>Matt black finished 6500mm high mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres embedded into and including 400 x 400 x 650mm deep concrete base complete with excavations, filling, etcetera, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2050mm centres and to top of fence infill panels, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures.</p>	m	313	
	Carried Forward		R	
	<p>SECTION 2 Bill No. 8 Metalwork</p>			

Brought Forward			R	
2	Matt black finished 4000mm high mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres embedded into and including 400 x 400 x 650mm deep concrete base complete with excavations, filling, etcetera, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres and to top of infill panels, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures.	m	199	
3	Matt black finished 24000 wide x 73000mm long horizontal mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, fixed to top of vertical steel fencing at approximately 6500mm height.	No	1	
4	Matt black finished 24000 wide x 62000mm long horizontal mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, fixed to top of vertical steel fencing at approximately 6500mm height.	No	1	
5	Matt black finished 7650mm wide x 24000mm long horizontal mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, fixed to top of vertical steel fencing at approximately 6500mm height.	No	1	
Carried Forward			R	
SECTION 2 Bill No. 8 Metalwork				

Brought Forward			R	
6	Matt black finished 9000 wide x 54000mm long horizontal mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, fixed to top of vertical steel fencing at approximately 4000mm height.	No	1	
7	Matt black finished 9000 wide x 46000mm long horizontal mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, fixed to top of vertical steel fencing at approximately 4000mm height.	No	1	
8	Matt black finished 9000 wide x 15400mm long horizontal mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, fixed to top of vertical steel fencing at approximately 4000mm height.	No	1	
9	Matt black finished 9000 wide x 7650mm long horizontal mesh fencing comprising 88.9mm diameter x 6mm thick circular hollow section posts at 2489mm centres, 88.9mm diameter x 6mm thick circular hollow section horizontal steel support fixed to steel posts at 2400mm centres, one diagonal bracing member at 4978mm centres, including infill panels comprising 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, fixed to top of vertical steel fencing at approximately 4000mm height.	No	1	
Carried Forward			R	
SECTION 2 Bill No. 8 Metalwork				

Brought Forward			R	
<u>Galvanized mild steel gates, etc</u>				
10	Extra over matt black finished 6500mm high fence for 3000mm wide x 2400mm high sliding gate comprising mild steel tubing frame size 100 x 100 x 6mm thick, filled with 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, including wheels, ironmongery and sliding track embedded into and including 300 x 150mm deep concrete, excavations, etc (G02)	No	6	
11	Extra over matt black finished 6500mm high fence for 3000mm wide x 2100mm high double gate comprising mild steel tubing frame size 100 x 100 x 6mm thick, two equal leaves each size 1500 x 2100mm high filled with 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, including ironmongery, etc (G01)	No	3	
12	Extra over matt black finished 6500mm high fence for 1800mm wide x 2100mm high double gate comprising mild steel tubing frame size 100 x 100 x 6mm thick, two equal leaves each size 900 x 2100mm high filled with 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, including ironmongery, etc (G03)	No	6	
13	Extra over matt black finished 4000mm high fence for 3000mm wide x 2100mm high double gate comprising mild steel tubing frame size 100 x 100 x 6mm thick, two equal leaves each size 1500 x 2100mm high filled with 3.2mm diameter vertical and horizontal wires forming 150 x 100mm apertures, including ironmongery, etc (G01)	No	11	
<u>Galvanized mild steel balustrading with uprights set in epoxy non-shrink grout in pockets in concrete:</u>				
14	1100mm High galvanized mild steel balustrade comprising 50mm diameter handrail fixed to and including 1000mm high galvanised mild steel posts fixed to concrete floor at 1100mm centres, and 10mm mild steel horizontal intermediate rails at 100mm centres, all complete as per Drawing WD 620 Rev 0 annexed to these Bills of Quantities	m	106	
Carried Forward			R	
SECTION 2 Bill No. 8 Metalwork				

Brought Forward			R
15	1100mm High galvanized mild steel raking balustrade comprising 50mm diameter handrail fixed to and including 1000mm high galvanised mild steel posts fixed to concrete floor at 1100mm centres, and 10mm mild steel horizontal intermediate rails at 100mm centres, all complete as per Drawing WD 620 Rev 0 annexed to these Bills of Quantities	m	8
<u>GALVANIZED PRESSED STEEL DOOR FRAMES</u>			
<u>1,6mm Double rebated frames suitable for half brick walls</u>			
16	Jamb linings for door 813 x 2032mm high.	No	12
17	Frame for door 813 x 2032mm high.	No	8
<u>1,6mm Double rebated frames suitable for one brick walls with two loose pin hinges welded to frame</u>			
18	Frame for door 813 x 2032mm high.	No	7
19	Frame for double door 1800 x 2032mm high	No	5
<u>ALUMINIUM DOORS, FANLIGHTS AND SIDELIGHTS</u>			
<u>ALUMINIUM WINDOWS</u>			
<u>Abutments between window door frames and surrounding faced or plastered brickwork shall be pointed internally and externally with an approved silicone sealer. Rates of aluminium windows shall be deemed to include for silicone pointing. Opening sashes to be provided with standard casement hinges, pegs and stays as supplied by window manufacturer. All glazed sections to be fixed with internal clip-on glazing beads and neoprene seals.</u>			
Carried Forward			R
SECTION 2 Bill No. 8 Metalwork			

	Brought Forward			R	
	<u>25 Micron powder coated "Charcoal Grey" aluminium windows with fixed and opening sashes, glazed with "Monolithic Annealed" or similar approved 4mm clear float glass including black vinyl gasket and aluminium glazing beads, sub-frames, and all to be to AAAMSA standards, plugged to brickwork or concrete:</u>				
20	Window size 1800 x 1000mm high overall, with one fixed sash and one sliding sash with Reference number W01, as per Drawing Number WD601 Rev A, annexed to these Bills of Quantities	No	10		
21	Window size 1500 x 1000mm high overall, with one fixed sash with Reference number W04, as per Drawing Number WD601 Rev A, annexed to these Bills of Quantities	No	1		
22	Window size 3000 x 1000mm high overall, with three fixed sashes, with Reference number W03, as per Drawing Number WD601 Rev A, annexed to these Bills of Quantities	No	8		
23	Window size 1800 x 1000mm high overall, with one fixed sashes and one sliding sash, with Reference number W05, as per Drawing Number WD601 Rev A, annexed to these Bills of Quantities	No	3		
	<u>25 Micron powder coated "Charcoal Grey" aluminium windows with fixed and opening sashes, glazed with "Monolithic Annealed" or similar approved 3mm obscure glass including black vinyl gasket and aluminium glazing beads, sub-frames, and all to be to AAAMSA standards, plugged to brickwork or concrete:</u>				
24	Window size 600 x 900mm high overall, with one top hung opening sash and one fixed sash, with Reference number W02, as per Drawing Number WD601 Rev A, annexed to these Bills of Quantities	No	8		
	Carried Forward			R	
	SECTION 2 Bill No. 8 Metalwork				

Brought Forward				R	
<u>ALUMINIUM SHOPFRONTS</u>					
<p>Abutments between shopfront frames and surrounding faced or plastered brickwork shall be pointed internally and externally with an approved silicone sealer. Rates of aluminium shop fronts shall be deemed to include for silicone pointing.</p> <p><u>25 Micron powder coated "Charcoal Grey" aluminium shopfront with fixed lights, glazed with "Smart glass" or similar approved 6.38mm Intruder Proof normal strength laminated safety glass including black vinyl gasket and aluminium glazing beads, sub-frames, and all to be to AAAMSA standards, plugged to brickwork or concrete:</u></p>					
25	Shopfront size 1500 x 2100mm high, Reference Number SF01 as per Drawing No.WD601 Rev A	No	2		
26	Shopfront size 6300 x 2400mm high including double door size 1800 x 2400mm high, Reference Number SF02 as per Drawing No.WD601 Rev A	No	1		
<u>STEEL ROLLER SHUTTERS, ETC</u>					
<u>Galvanised mild steel roller shutters fixed to brickwork or concrete:</u>					
27	"Teckentrup motorised 0.4mm thick galvanised PU foam core Steel Thermotek" or similar approved roller shutter including Galvanised Steel curtain box, to suit opening size 6990 x 4296mm high with TAR shaft drive and CS300 impulse with opto sensor (standard) and additional open-stop-close function push button and all necessary galvanised steel fittings, FS110 galvanised steel guard rail, with frame bolted to brickwork, concrete or structural steel, all in accordance with manufacturer's recommendations.	No	1		
Carried Forward				R	
<p>SECTION 2 Bill No. 8 Metalwork</p>					

Brought Forward			R	
28	"Teckentrup motorised 0.4mm thick PU foam core galvanised Steel Thermoteck" or similar approved roller shutter including Galvanised Steel curtain box, to suit opening size 3000 x 3000mm high with TAR shaft drive and CS300 impulse with opto sensor (standard) and additional open-stop-close function push button and all necessary galvanised steel fittings, FS85 galvanised steel guard rail, with frame bolted to brickwork, concrete or structural steel, all in accordance with manufacturer's recommendations.	No	5	
29	"Teckentrup motorised 0.4mm thick galvanised PU foam core Steel Thermoteck" or similar approved roller shutter including Galvanised Steel curtain box, to suit opening size 3000 x 2100mm high with TAR shaft drive and CS300 impulse with opto sensor (standard) and additional open-stop-close function push button and all necessary galvanised steel fittings, FS85 galvanised steel guard rail, with frame bolted to brickwork, concrete or structural steel, all in accordance with manufacturer's recommendations.	No	1	
30	Teckentrup 72 E", T30-1-FSA" or similar approved fire resistant, single leaf sliding steel door, 72mm thick, size 3000 x 2100mm complete with all accessories as detailed in Drawing No WD600 Rev annexed to these Bills of Quantities	No	2	
<u>STEEL STRONGROOM DOORS, ETC.</u>				
<u>"Chubb Safes" or similar approved Category 2 Strongroom doors and frame</u>				
31	Right hand opening category 2 heavy duty strong room door and frame, Door size 750 x 1860mm high, Code MSRD53, fixed to walls in accordance with the manufacturer's instructions, including 7-lever security key locks mechanism, and a floor mounted door stop	No	1	
<u>"Mutual Austen" or other SABS approved strongroom doors and frames, etc., suitable for 230mm walls and fixed to brickwork or concrete:</u>				
32	Double ended strongroom ventilator	No	1	
Carried Forward			R	
SECTION 2 Bill No. 8 Metalwork				

Brought Forward			R	
<u>DOCK LEVELLERS, ETC</u>				
<u>"Stab-a-load" Kelly AFX 710 or similar approved dock leveller fixed to concrete including all preparatory work:</u>				
33	Dock leveller size 2845mm long x 2110mm wide x 500mm deep	No	3	
<u>LOUVRE VENTS, ETC</u>				
<u>"Trox Technik" or similar approved weather resistant galvanized louvres</u>				
34	1200 x 600mm High Type WG louvres comprising masonry subframes, frames, 25 x 25mm wire mesh screen, 83mm long blades at 82mm centres coated to RAL colour, all to be in accordance with manufacturer's specifications fixed into brickwall with standard flanges, Refer Drawing No WD701 Rev0 annexed to these Bills of Quantities	No	18	
35	4000 x 1380mm High Type WG louvres comprising masonry subframes, frames, 25 x 25mm wire mesh screen, 83mm long blades at 82mm centres coated to RAL colour, all to be in accordance with manufacturer's specifications fixed into brickwall with standard flanges, Refer Drawing No WD701 Rev0 annexed to these Bills of Quantities	No	24	
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 8				
Metalwork				

Item No		Quantity	Rate	Amount
	<u>BILL NO 9</u>			
	<u>PLASTERING</u>			
	<u>STANDARD PREAMBLES</u>			
	The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>SCREEDS</u>			
	<u>Screeds on concrete</u>			
1	25mm Thick on floors and landings	m2	110	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork or concrete</u>			
2	On walls	m2	966	
3	In narrow widths	m2	10	
	<u>Cement plaster on brickwork or concrete previously plastered</u>			
4	On walls	m2	5 010	
5	In narrow widths	m2	29	
	<u>EXTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork or concrete</u>			
6	On walls	m2	3 576	
7	In narrow widths	m2	37	
	Carried Forward			
	SECTION 2 Bill No. 9 Plastering			
			R	

Brought Forward			R	
<u>SPECIALIST WALL COATINGS</u>				
<u>"Flowcrete Flowseal EPW" or similar approved epoxy based wall coatings</u>				
<u>Lightly sand the entire surface to provide a suitable key, wipe down area with damp cloth, prime wall with 1 coat Flowseal EPW Primer, and allow curing, apply 2 coats Flowseal EPW coating at 8m2 per litre, allow curing, all to be applied in strict accordance with manufacturer's instructions</u>				
8	Previously plastered and painted walls.	m2	657	
9	New plastered walls	m2	88	
<u>Lightly sand the entire surface to provide a suitable key, wipe down area with damp cloth, prime wall with 1 coat Flowseal EPW Primer, and allow curing, apply 3 coats Flowseal EPW coating at 8m2 per litre, allow curing, all to be applied in strict accordance with manufacturer's instructions</u>				
10	Previously plastered and painted walls.	m2	18	
11	New plastered walls	m2	18	
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 9				
Plastering				

Item No	Quantity	Rate	Amount
<u>BILL NO 10</u>			
<u>TILING</u>			
<u>STANDARD PREAMBLES</u>			
The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
<u>SUPPLEMENTARY PREAMBLES</u>			
Descriptions			
Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding.			
<u>WALL TILING</u>			
<u>Wall tiles fixed with adhesive to plastered walls and flush pointed with tinted waterproof jointing compound (Allow aPC Amount of R200/m2 for tile , adhesive and jointing compound, including delivery to site)</u>			
1	In splash backs, etc	m2	2
Carried Forward to Summary of Section No. 2			R
SECTION 2			
Bill No. 10			
Tiling			

Item No		Quantity	Rate	Amount
	<u>BILL NO. 11</u> <u>PLUMBING AND DRAINAGE (PROVISIONAL)</u> <u>STANDARD PREAMBLES</u> The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained <u>SUPPLEMENTARY PREAMBLES</u> Note: Prices for all stormwater drainpipes in ground are to include for bedding on and surrounding with approved granular material supplied and carted on to site by the contractor to a minimum thickness of 150mm below and 300mm above the pipe and for depositing the excavated material in spoil heaps where directed on site. <u>Sumps, Gulleys, etc</u>			
1	300 x 300mm Precast gulley concrete top, 110mm gulley and grating	No	34	
2	Sump size 800 x 800 x 900mm deep internally, comprising 150mm thick, 25Mpa/19mm concrete surface bed, 200mm thick concrete walls, including form work and reinforcement at 120kg per cubic meter of concrete, complete including all necessary excavations, filling and backfilling, carting away of excess material from excavations, 905 x 905mm heavy duty Mentis Rectagrid RS40 and 40 x 4.5 banded HDG stormwater cover, and opening for 300/450mm diameter pipe.	No	2	
	Carried Forward			
	SECTION 2 Bill No. 11 Plumbing and Drainage		R	

Brought Forward			R
<u>SANITARY FITTINGS</u>			
<u>'Vaal Sanitaryware' vitreous china wash hand basins</u>			
3	510 x 405mm 'Hibiscus' white vitreous china rounded lavatory basin (product code 702303) with three semi-punched with integrated overflow and chain stay hole through the centre semi punched tap hole, bolted to wall with two 10mm bolts (product code 8448Z0) complete with plug and chain.	No	11
<u>'Vaal Sanitaryware' vitreous china water closets:</u>			
4	Vaal Sanitaryware "Urban Life" vitreous china (Product Code : 439300), comprising 90° back inlet closed rim wall hung pan, with quality soft-close seat, a concealed cistern, (Product Code: 710935) or a concealed flush valve, with bolt through the wall bracket (Product Code : 8084ZO) and DPI flushfit pan collar or equivalent	No	7
5	Vaal Sanitaryware "Protea Paraplegic" vitreous china floor mounted paraplegic wash down suite colour White (code: 750200) comprising 90° outlet pan (code: 7502) and matching 9 litre cistern (code: 710631), including lid, fitments and purpose-made chromium plated side flush lever.	No	1
<u>WASTE UNIONS ETC</u>			
6	40mm Basin waste union	No	11
<u>TRAPS ETC</u>			
<u>"Cobra Watertech"</u>			
7	Cobra Watertech 40mm chrome plated deep seal bottle trap with outlet for 50mm PVC (Code: 365/50).	No	11
<u>Brass</u>			
8	50mm Rough brass shower P-trap (VA 2341 1 1/2")	No	2
Carried Forward			R
SECTION 2 Bill No. 11 Plumbing and Drainage			

Brought Forward			R
<u>TAPS, VALVES, ETC</u>			
<u>"Cobra Watertech"</u>			
9	Cobra Watertech 15mm chrome plated elbow action raised nose pillar tap with blue indicator for cold water (Code: 503-21B), manufactured in accordance with SANS 226:2004 Type 2 (BS 5412).	No 22	
10	Cobra Watertech 15mm x 50mm diameter chrome plated Concorde shower head with ball-jointed connector (Code: 068BJ).	No 2	
11	Cobra Watertech 15mm x 50mm diameter chrome plated Concorde shower rose with ball-jointed connector (Code: 068BJ).	No 2	
12	15mm Stop cock	No 19	
13	Flushmaster Junior WC valve	No 8	
<u>SANITARY PLUMBING</u>			
<u>uPVC pipes</u>			
14	110mm Pipes	m 26	
15	50mm Pipe	m 59	
<u>Extra over uPVC pipes for fitting</u>			
16	110 x 50mm Access reducing junction	No 26	
17	50mm Bend	No 52	
18	50mm Junction	No 26	
<u>Sundries</u>			
19	Testing waste pipe system	Item	
Carried Forward			R
SECTION 2 Bill No. 11 Plumbing and Drainage			

Brought Forward				R	
<u>COLD WATER SUPPLIES</u>					
<u>Class I copper (hard drawn) pipes</u>					
20	15mm Pipes to walls, etc	m	50		
21	Ditto but chased in	m	33		
22	22mm Pipes to walls, etc	m	99		
<u>Extra over class I copper (hard drawn) pipes for capillary fittings</u>					
23	15mm Fittings	No	165		
24	22mm Fittings	No	198		
<u>Extra over class I copper (hard drawn) pipes for brass compression fittings</u>					
25	15mm Fittings	No	66		
26	22mm Fittings	No	132		
<u>Sundries</u>					
27	Testing cold water supplies system		Item		
<u>HOT WATER SUPPLIES</u>					
<u>Class I copper (hard drawn) pipes including lagging where deemed necessary</u>					
28	15mm Pipes to walls, etc	m	10		
29	Ditto but chased in	m	16		
30	22mm Pipes to walls, etc	m	24		
31	Ditto but chased in	m	14		
<u>Extra over class I copper (hard drawn) pipes for capillary fittings</u>					
32	15mm Fittings	No	34		
Carried Forward				R	
SECTION 2 Bill No. 11 Plumbing and Drainage					

Brought Forward			R
33	22mm Fittings	No	56
	<u>Extra over class I copper (hard drawn) pipes for brass compression fittings</u>		
34	15mm Fittings	No	12
35	22mm Fittings	No	16
	<u>Sundries</u>		
36	Testing cold water supplies system		Item
Carried Forward to Summary of Section No. 2			R
SECTION 2			
Bill No. 11			
Plumbing and Drainage			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 12</u></p> <p><u>ELECTRICAL WORK</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>The tenderer shall allow for whatever costs he may deem necessary for preliminary and general items to carry out the electrical installations as detailed in the conditions of contract, specifications, and Bill of Quantities as indicated on the drawings for this project</p> <p>These bills of quantities form part of and must be read in conjunction with the Tender Drawings, which contain the full descriptions of the work to be done and material and equipment to be used.</p> <p>All materials, equipment, fixings, brackets, supports etc, are to be supplied by the Contractor unless otherwise stated, and are deemed to be included in the rates.</p> <p>Supply and installation of the items as detailed below. All material used shall be SABS approved.</p> <p><u>LV DISTRIBUTION BOARDS</u></p> <p><u>Distribution Board complete with all accessories sheet metal frames, sub-frames, bus-bars, fixtures and fittings as specified with all equipment fitted in factory.</u></p>			
1	Supply and install new surface mounted distribution board DB-G complete with all necessary accessories and maximum demand and kWh meters equivalent to Enermax Meter, as per drawings.	No	1	
	Carried Forward			
	SECTION 2 Bill No. 12 Electrical Work			
			R	

Brought Forward				R	
2	Supply and install surface mounted Distribution Board DB-G1 in the Ground Floor, complete with all necessary accessories, as per drawings.	No	1		
3	Supply and install flush mounted Distribution Board DB-G2 in the Ground Floor, complete with all necessary accessories, as per drawings.	No	1		
4	Supply and install flush mounted Distribution Board DB-F in the First Floor, complete with all necessary accessories, as per drawings.	No	1		
5	Supply and install flush mounted Distribution Board DB-SC in the Ground Floor Security room, complete with all necessary accessories, as per drawings.	No	1		
6	Supply and install 400x400mm Telephone Distribution Board	No	2		
<u>CABLE INSTALLATIONS</u>					
<u>Rate shall include for the supply, delivery and installation of 600/1000V PVC/PVC/SWA/PVC/Cu cable in shaft, sleeve, trench, on cable rack or on surface, including strapping or clamping, supports, etc.</u>					
7	70mm ² x 4 core	m	140		
8	25mm ² x 4 core	m	215		
9	16mm ² x 4 core	m	380		
10	10mm ² x 4 core	m	420		
11	16mm ² x 3 core	m	95		
<u>Cable Terminations</u>					
<u>Supply, install, terminate and connect 600/1000V PVC/SWA/PVC/Cu cable including drilling, bolting, lugs, number tags, core markers, glands, shrouds, etc.</u>					
12	70mm ² x 4 core	m	2		
Carried Forward				R	
SECTION 2 Bill No. 12 Electrical Work					

	Brought Forward			R	
13	25mm ² x 4 core	m	4		
14	16mm ² x 4 core	m	14		
15	10mm ² x 4 core	m	12		
16	16mm ² x 3 core	m	2		
	<u>Copper earth conductor in trench or sleeve, on racking, steelwork or strapped to cable.</u>				
17	70 mm ² BCEW	m	140		
18	25mm ² BCEW	m	215		
19	16mm ² BCEW	m	220		
20	16mm ² insulated earth wire (Green/Yellow)	No	100		
21	10mm ² BCEW	No	220		
	<u>Copper earth conductor terminations</u>				
22	70 mm ² BCEW	m	2		
23	25mm ² BCEW	m	4		
24	16mm ² BCEW	m	6		
25	10mm ² BCEW	No	12		
	<u>CONDUIT</u>				
	<u>Supply and install SABS approved PVC conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc. cast in concrete, built or chased into brickwork or surface mounted to any surface.</u>				
26	20mm Conduit	m	800		
27	25mm Conduit	m	4 000		
28	32mm Conduit	m	1 000		
	Carried Forward			R	
	SECTION 2 Bill No. 12 Electrical Work				

Brought Forward				R	
29	50mm Conduit	m	300		
	<u>Galvanized steel conduit conduit complete with bends, joints, adaptors, couplings, saddles, cutting, etc. cast in concrete, built or chased into brickwork or surface mounted to any surface.</u>				
30	20mm Conduit	m	100		
31	25mm Conduit	m	200		
	<u>CONDUIT BOXES</u>				
	<u>Supply and install surface or flush mounted galvanized conduit boxes including fixing to conduit with necessary locknuts, adaptors, bushes, etc.</u>				
32	100 x 100 x 50mm Outlet box	No	40		
33	100 x 50 x 50mm Outlet box	No	12		
34	60mm Round outlet box	No	100		
35	60mm Diameter cover plate	m	40		
36	100 x 100 Blank cover plates	No	5		
37	100 x 50 Blank cover plates	No	5		
38	Draw-wire pulled into conduits	m	400		
	<u>FITTINGS AND ACCESSORIES</u>				
	<u>Supply and Install wall mounted industrial fittings and accessories complete with all necessary screws, cover plates, labelling, cradles, including all holes, drilling, etc.</u>				
39	16A, 3-Pin flush mounted single switched socket outlet	No	20		
40	16A, 3-Pin flush mounted double switched socket outlet	No	35		
41	16A, 3-Pin power skirting mounted dedicated double switched socket outlet (Red)	No	2		
	Carried Forward				R
	SECTION 2 Bill No. 12 Electrical Work				

Brought Forward			R	
42	16A, 3-Pin power skirting mounted normal single switched socket outlet (White)	No	45	
43	16A, 3-Pin power skirting mounted dedicated single switched socket outlet (Red)	No	46	
44	16A, 3-Pin power skirting mounted dedicated single switched socket outlet (Blue)	No	4	
45	20A Telkom isolator	No	4	
46	Corporate connection c/w 1 x normal SSO, 1 x dedicated SSO, 1 x telephone and 1 x data outlet	No	14	
47	20Amp flush mounted single phase hand dryer isolator	No	4	
48	20Amp flush mounted single phase A/C isolator	No	14	
49	30Amp flush mounted single phase roller shutter door isolator	No	8	
50	30Amp surface mounted three phase isolator for the roller shutter door	No	2	
51	100Amp surface mounted weatherproof three phase isolator for the smoke extract fan.	No	2	
52	32A Three phase welding plug	No	7	
<u>POWERSKIRTING</u>				
<u>2 Compartment 2 cover Series N8 motor craft grey power skirting as per specification and drawings, complete with cover plates, splices, earthing, powder coating, etc. and all accessories to complete the installation.</u>				
53	2 compartment powerskirting	m	210	
54	Ditto 90 deg. External/internal elbow	No	9	
55	Ditto Tee bend	No	7	
56	Ditto end caps	No	18	
Carried Forward			R	
SECTION 2 Bill No. 12 Electrical Work				

Brought Forward			R	
57	Telephone and data outlet cover plates suitable for mounting on power skirting	No	45	
<u>LUMINAIRES</u>				
<u>The supply, installation and electrical connection of light fittings, including cost of fittings, complete with lamps, including bolts, nuts, brackets, cable with 5A plug/top, cut-outs in ceiling, identification marks, etc.</u>				
58	Type F2 - 2x28W T5 Open channel fluorescent luminaire complete with an electronic gear. IP20.	No	40	
59	Type F3 - 2x28W T5 recessed fluorescent luminaire with double parabolic louvers separated by perforated infills panels c/w electronic gear. IP20.	No	20	
60	Type F4 - 3x54W T5 recessed fluorescent luminaire with double parabolic louvers separated by perforated infills panels c/w electronic gear. IP20.	No	18	
61	Type T1- 4x80W T5 surface mounted medium beam T-Bay fluorescent fitting complete with electronic gear.	No	130	
62	Type D1 - 1x18W CFL recessed sealed downlighter.	No	20	
63	Type D2 - 4.5/10W LED downlight	No	15	
64	Type B1 - 85W LED wall mounted flood light similar or equal to Beka LEDnova	No	25	
<u>LIGHT SWITCH</u>				
<u>Light switches, complete with all necessary connections, labelling, screws, cover plates, etc.</u>				
65	16A Three lever one-way flush mounted light switch	No	3	
66	16A one lever two-way flush mounted light switch	No	8	
67	ES Micro Office motion sensor	No	25	
68	Daylight switch	No	4	
Carried Forward			R	
SECTION 2 Bill No. 12 Electrical Work				

Brought Forward				R	
<u>CONDUCTORS</u>					
<u>600/1000V PVC insulated conductors into conduit, trunking, including conductor identification labels, terminating, etc.</u>					
69	2.5 mm ² conductor	m	8 000		
70	4.0 mm ² conductor	m	4 000		
71	6.0 mm ² conductor	m	2 000		
<u>Bare copper earth conductor into conduit, trunking, etc</u>					
72	4.0 mm ² insulated earth	m	3 000		
73	4.0 mm ² conductor	m	3 000		
<u>APPLIANCE CONNECTIONS</u>					
<u>Flexible steel connections complete with adaptors, lock nuts, bushes, labelling, etc. not exceeding 2 metres or approved termination kit.</u>					
74	Hand Drier - Single phase Isolator	No	4		
75	Air conditioning - single phase Isolator	No	15		
76	Air conditioning - three phase Isolator	No	8		
77	Roller shutter doors - single phase isolator	No	10		
78	Smoke extract fans - Three phase isolator	No	2		
<u>Cable Tray</u>					
<u>Supply and installation of pre-galvanised heavy duty cable tray, complete with all accessories, support brackets, splices, etc.</u>					
79	300 cable ladder	m	300		
80	300 cable ladder 90 deg. Bends	No	4		
Carried Forward				R	
SECTION 2 Bill No. 12 Electrical Work					

Brought Forward				R	
81	300 cable ladder "T's"	No	2		
	<u>Cable Tray</u>				
	<u>Supply and installation of pre-galvanised medium duty cable tray, complete with all accessories, support brackets, splices, etc.</u>				
82	300 Wide cable tray	m	420		
83	150 Wide cable tray	m	520		
84	100 Wide cable tray	m	80		
85	300 Wide cable tray 90 deg. Bends	No	4		
86	150 Wide cable tray 90 deg. Bends	No	12		
87	100 Wide cable tray 90 deg. Bends	No	4		
88	300 Wide cable tray "T's"	No	2		
89	150 Wide cable tray "T's"	m	12		
	<u>TRUNKING</u>				
90	P2000 trunking complete with accessories	m	1 800		
91	P2000 90 deg. Bends	No	22		
92	P2000 "T's"	No	14		
	<u>Manholes</u>				
93	Supply and Install 600x600x800 manhole with heavy duty cast iron cover.	No	4		
Carried Forward				R	
SECTION 2 Bill No. 12 Electrical Work					

Brought Forward			R	
<u>LABELLING</u>				
<u>Supply and install labelling of switches, socket outlets, isolators, etc. Labels shall be engraved Trafolite or similar plastic material or ivory sandwiched strips and shall be fixed by means of machine screws or aluminium channeling. The strips shall bear white lettering on a black background for normal labels and red letters on a white or yellow background for danger notices</u>				
94	Labels		SUM	
<u>EARTHING AND BONDING</u>				
95	Equipotential bonding of all conductive materials i.e water pipes, sinks, all exposed metal parts and distribution boards in the building.		SUM	
<u>TESTING AND COMMISSIONING</u>				
96	Testing and commissioning of the entire electrical installation contained in this Bill.		SUM	
<u>SUNDRY</u>				
97	Allowance for Electrical contractor's preliminaries and general costs	Item		
Carried Forward to Summary of Section No. 2			R	
SECTION 2 Bill No. 12 Electrical Work				

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 13</u></p> <p><u>MECHANICAL WORK</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>The tenderer shall allow for whatever costs he may deem necessary for preliminary and general items to carry out the electrical installations as detailed in the conditions of contract, specifications, and Bill of Quantities as indicated on the drawings for this project</p> <p>These bills of quantities form part of and must be read in conjunction with the Tender Drawings, which contain the full descriptions of the work to be done and material and equipment to be used.</p> <p>All materials, equipment, fixings, brackets, supports etc, are to be supplied by the Contractor unless otherwise stated, and are deemed to be included in the rates.</p> <p>Supply and installation of the items as detailed below. All material used shall be SABS approved.</p> <p><u>TEST ARRANGMENT</u></p> <p>1 Terminal test arrangement, including lockable valve and plug.</p> <p><u>SPRINKLER INSTALLATION CONTROL VALVE CHAMBER</u></p> <p>2 150mm dia wet system Sprinkler Installation Control Valve (ICV) complete with alarm valve, main stop valve, alarm gong, water proving test, drain valve, gauges, and all trim to ASIBs specifications.</p> <p style="text-align: right;">Carried Forward</p> <p>SECTION 2 Bill No. 13 Mechanical Work</p>			
		No	2	
		No	2	
				R

		Brought Forward		R	
3	Flow switches	No	2		
	<u>PUMPSET</u>				
4	Install an ASIB approved automatic fire sprinkler booster pump-set delivering 4800/ min @ 850kPa, comprising of a diesel-driven primary pump and electric-driven secondary pump.	Sets	1		
	<u>All of the above mounted complete with an electrical control panel suitable for wall mounting, indicator panels, remote annunciator, 24V diesel and annunciator panel complete with batteries, sensors, diesel tank complete with refill pump, all pressure gauges, pressure switches, flow switches, pump automatic start arrangement, test arrangement, extractor fan, etc.</u>				
5	Install Jockey pump for the sprinklers installation.	No	1		
6	Pump room piping and controls.			SUM	
	<u>SPRINKLER WATER STORAGE TANK</u>				
7	Install sectional steel sprinkler water storage tank as per supplier specifications and drawings, similar or equal to "Abeco" modular tank, made from 1.22m x 1.22m standard steel panels. Tank to include 2-off diameter 100mm inlet ports, 2-off diameter 150mm overflow, 2-off diameter 200mm delivery, and 2-off diameter 80mm drain ports, 2-off vortex inhibitors and sumps, 4-off 600mm x 600mm tank access manhole, 4-off internal cat ladders, 4-off external cat ladders, lever indicators, etc, capacity to be 470m3, dimensions to be 12.2m length x 8.54m width x 4.88m height, and panels to be 280	No	1		
8	Piping, fittings and valves for the water tank.			SUM	
	<u>TESTING & COMMISSIONING</u>				
9	Allow for testing and commissioning of the sprinklers installation after completion in accordance with Fire Department and ASIB requirements.			SUM	
	Carried Forward			R	
	SECTION 2 Bill No. 13 Mechanical Work				

	Brought Forward			R	
	<u>ASIB INSPECTIONS</u>				
10	Allow for inspections by ASIB.			SUM	
	<u>DRAWINGS</u>				
11	Submission of workshop working drawings for approval prior to installation of the sprinkler system.	Sets	1		
12	Submission of 'As Built' drawings in AutoCAD format indicating the final positions of the sprinklers installation equipment as installed by the Contractor, with hard copies inserted in the O & M Manuals.	Sets	1		
	<u>OPERATION & MAINTENANCE MANUALS</u>				
13	Compilation and submission of Operating and Maintenance Manuals for the sprinklers installation installations.	No	4		
	<u>FIRE HYDRANTS, FIRE HOSE REELS & FIRE EXTINGUISHERS</u>				
	<u>TWIN FIRE BOOSTER CONNECTION</u>				
14	65mm twin fire booster connection complete with reflux valve and connection couplings.	No	1		
	<u>FIRE HYDRANT</u>				
15	65mm right angled pattern fire hydrant complete with coupling.	No	4		
	<u>FIRE HOSE REELS</u>				
16	Approved fire hose reel fitted with 30m length of 20mm hose mounted on wall bracket bolted to wall, complete with chromium plated stop cock and shut-off nozzle.	No	16		
	<u>FIRE EXTINGUISHERS</u>				
17	9kg Dry Chemical Powder (DCP) type fire extinguisher with bracket fixed to and including 25 x 100 x 450mm polished hard wood backboard with chamfered edges plugged to brick wall.	No	50		
	Carried Forward			R	
	SECTION 2 Bill No. 13 Mechanical Work				

Brought Forward			R	
18	5kg Carbon Dioxide (CO2) type fire extinguisher with bracket fixed to and including 25 x 100 x 450mm polished hard wood backboard with chamfered edges plugged to brick wall.	No	6	
<u>INVESTIGATION OF EXISTING COLD WATER SUPPLY PIPEWORK</u>				
19	Allow for inspection and investigation of existing water reticulation installation to locate the cold water mains, pipe runs and entry points into the building, including excavation, isolation, connecting into existing pipework for new fire water feed and backfilling.			SUM
<u>PIPEWORK</u>				
<u>High Pressure HDPE Pipework (Class 12)</u>				
High pressure High Density Polyethylene (HDPE) pipe for use underground, including couplers, sockets, etc, in the running length, on class 'B' bedding, including excavations on pickable material, backfilling and compaction, installed in accordance with SANS 1200, SANS 10400 and SANS 10252-1.				
20	110mm diameter high pressure class 12 HDPE pipe laid in ground not more than 1000mm deep.	m	440	
<u>Extra over HDPE pipework for 'Plasson' compression fittings:</u>				
<u>Bends</u>				
21	110mm diameter bend	No	10	
22	110mm diameter 45o elbow	No	10	
<u>Tees</u>				
23	110mm diameter tee	No	5	
24	110mm diameter 45o tee	No	1	
<u>Reducers</u>				
25	110 x 65mm diameter reducer	No	5	
Carried Forward			R	
SECTION 2 Bill No. 13 Mechanical Work				

Brought Forward				R	
26	110 x 50mm diameter reducer	No	2		
<u>Adaptors</u>					
27	110mm plastic to steel adaptor	No	5		
28	50mm plastic to steel adaptor	No	2		
<u>Galvanised Mild Steel Pipework</u>					
Medium class galvanised mild steel (GMS) screwed and socketed pipes to SANS 62, installed in accordance with SANS 0400:1990 and SANS 10252-1:2004, including couplers in the running length, and all necessary supports, fixing, brackets, saddlers, holder bats, etc, and painted red in accordance with SANS 10140-3:2003:					
29	50mm diameter pipe fixed to wall.	m	450		
30	32mm diameter pipe fixed to wall.	m	20		
31	25mm diameter pipe fixed to wall.	m	170		
<u>Extra over GMS pipework for fittings, as shown on the tender drawings:</u>					
<u>Bends</u>					
32	50mm diameter bend	No	20		
33	32mm diameter bend	No	6		
34	25mm diameter bend	No	30		
<u>Tees</u>					
35	50mm diameter tee	No	16		
36	32mm diameter tee	No	1		
37	25mm diameter tee	No	1		
<u>Reducers</u>					
38	50mm x 25mm reducer	No	16		
Carried Forward				R	
SECTION 2 Bill No. 13 Mechanical Work					

Brought Forward				R	
39	50mm x 40mm reducer	No	1		
40	50mm x 32mm reducer	No	2		
41	32mm x 25mm reducer	No	2		
<u>VALVES</u>					
42	50mm diameter isolation gate valve	No	2		
<u>FIRE AND ESCAPE SIGNAGE</u>					
<u>Photoluminescent signage and warning notices in accordance with SANS 1186-1: 2008, and incorporating the pictographs in the standard size 300 x 300mm, securely fixed to wall, door, ceiling, purlins, or soffit as shown on fire protection drawings.</u>					
43	Type F4, red arrow and red figures on white background with 4mm red border line: Location of fire fighting equipment: fire extinguisher; fire hose reel.	No	16		
44	Type F13, red arrow and red figure on white background with 4mm red border line: Location of fire fighting equipment: fire extinguisher.	No	32		
45	Type F15, red arrow and red figure on white background with 4mm red border line: Location of fire fighting equipment: fire hydrant (left)	No	5		
46	Type F45, white background with 4mm red border line with red letters: FIRE EXIT KEEP CLEAR.	No	6		
47	Type E1, green background with white arrow and white figure: Direction of escape route (right)	No	5		
48	Type E2, green background with white arrow and white figure: Direction of escape route (left)	No	5		
49	Type E4, white background with 4mm red border line with letters and arrow: EXIT (right)	No	5		
50	Type E5, white background with 4mm red border line with letters and arrow: EXIT (left)	No	5		
Carried Forward				R	
SECTION 2 Bill No. 13 Mechanical Work					

**SARS CUSTOMS
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Brought Forward			R	
51	Type E6, white background with 4mm red border line with letters: EXIT	No	11	
52	Type E10, green background with white arrow and white figure: Direction of escape route (straight ahead).	No	15	
53	Type E16, green background with white arrow and white figures: Direction to escape route (downstairs right)	No	2	
54	Type E17, green background with white arrow and white figures: Direction to escape route (downstairs left).	No	2	
<u>TESTING & COMMISSIONING</u>				
55	Allow for testing and commissioning of the fire protection installation after completion in accordance with EMS Fire Department requirements.			SUM
<u>GUARANTEE & MAINTENANCE</u>				
56	Guarantee equipment and 12-month maintenance period.			SUM
<u>TRAINING</u>				
57	Training of SARS Staff on operation of the fire equipment, i.e. fire hose reels and fire extinguishers.			SUM
<u>'AS BUILT' DRAWINGS</u>				
58	Submission of marked up 'As Built' hardcopy drawings indicating the final positions of the fire protection equipment as installed by the Contractor, with hard copies inserted in the O & M Manuals.	Sets	1	
<u>OPERATION & MAINTENANCE PROCEDURES</u>				
59	Submission of 4 No copies of operation and maintenance procedures for the fire equipment.			SUM
Carried Forward			R	
SECTION 2 Bill No. 13 Mechanical Work				

Brought Forward			R	
<u>AIRCONDITIONING</u>				
<u>VRV System</u>				
Water cooled VRV units				
Supply, installation and commissioning				
VRV Outdoor / Condensing units				
60	26.7 kW cooling # Water cooled VRV unit c/w master controllers and electrical panels.	No	2	
61	Rigging of VRV units into position	No	2	
62	Anti#vibration pads	No	8	
63	Galvanized steel mounting brackets c/w mounting bolts and anchors	No	4	
<u>VRV Indoor / Evaporator units</u>				
64	3.8 kW cooling # Cassette Unit c/w mounting brackets controller, controls, control wiring and associated devices to function as VRV units	No	5	
65	10.5 kW cooling # Cassette Unit c/w mounting brackets controller, controls, control wiring and associated devices to function as VRV units	No	1	
66	7.1 kW cooling # Cassette Unit c/w mounting brackets controller, controls, control wiring and associated devices to function as VRV units	No	2	
67	11.2 kW cooling # Under ceiling Unit c/w mounting brackets controller, controls, control wiring and associated devices to function as VRV units	No	2	
<u>Refrigeration piping</u>				
68	1 3/8 " Copper refrigeration piping c/w associated fittings and insulation	m	115	
Carried Forward			R	
SECTION 2 Bill No. 13 Mechanical Work				

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Brought Forward			R	
69	3/4 " Copper refrigeration piping c/w associated fittings and insulation	m	115	
70	5/8 " Copper refrigeration piping c/w associated fittings and insulation	m	48	
71	1/2 " Copper refrigeration piping c/w associated fittings and insulation	m	90	
72	3/8 " Copper refrigeration piping c/w associated fittings and insulation	m	48	
73	1/4 " Copper refrigeration piping c/w associated fittings and insulation	m	60	
<u>Closed Circuit Cooling Tower</u>				
74	75kW THR Closed Circuit Cooling Tower c/w spray pumps	No	1	
75	Rigging of the Closed Circuit Cooling Tower into position	No	1	
76	Anti#vibration pads	No	4	
<u>Condenser Water Circuit</u>				
77	Condenser Water Pumps # 3.25 l/s @ 17 m cw drain connections, drain pan, electrical motor, innetia base and av mountings	No	2	
78	Straight Galvanized Pipe, Ø 50mm	m	21	
79	Galvanized Bends, Ø 50mm	No	20	
80	Galvanized Tee, Ø 50mm	No	4	
81	Butterfly valve, Ø 50mm	No	10	
82	Non#return valve, Ø 50mm	No	2	
83	Balancing valve,Ø 50mm	No	2	
84	Strainer, Ø 50mm	No	2	
85	Flexible Pipe Connection, Ø 50mm	No	2	
Carried Forward			R	
SECTION 2 Bill No. 13 Mechanical Work				

Brought Forward				R	
86	Galv. Reducers from Ø 50mm down	No	4		
87	Galv. Flanged set, Ø 50mm	No	6		
88	Thermometer and pocket	No	6		
89	Pressure gauge and pocket	No	12		
90	Binder point and pocket	No	12		
91	BMS thermostat pocket	No	12		
92	Flow switch pocket	No	4		
93	Drain points	No	4		
94	Auto air vent and socket	No	2		
<u>Electrical Works</u>					
<u>Electrical</u>					
Motor Control Centre c/w instrumentation, locks and switches, switchgear and termination of incoming cable, to house the following switchgear					
95	Primary condenser water pumps (chilled water and condenser water)		Item		
96	Power supply to VRV system		Item		
97	Cooling tower Fan and VSD		Item		
98	Cooling tower spray pumps		Item		
99	Controls		Item		
100	1 cubicle for future use		Item		
101	Wiring from MCC to all equipment		Item		
102	Plant room wiring		Item		
Carried Forward				R	
SECTION 2 Bill No. 13 Mechanical Work					

Brought Forward			R	
103	Electrical field wiring to all equipment to include cable ways, conduits and supports	Item		
104	Wiring from MCC to all equipment in chiller plant room (size 2)	Item		
105	Variable Speed Drives	Item		
106	c/w wiring from isolator to drive and equipment 15Kw, IP 45	Item		
<u>Patch Room HVAC installation</u>				
<u>Supply, installation and commissioning</u>				
<u>Split unit - IT Patch Room</u>				
107	12 000 BTU Inverter type wall mounted split unit (Unit will be without infra red or motion sensors)	No	1	
108	Refrigeration Piping c/w insulation	m	30	
109	Condensate drain c/w insulation	m	10	
110	Electrical cabling between isolator, indoor and outdoor units	Item		
111	Blue Chem treatment of the condensing units	No	1	
112	Wall mounted brackets	No	2	
Carried Forward			R	
SECTION 2 Bill No. 13 Mechanical Work				

	Brought Forward			R	
	<u>Supply, installation and commissioning</u>				
	<u>Split unit - Security Patch Room</u>				
113	18 000 BTU Inverter type wall mounted split unit (Unit will be without infra red or motion sensors)	No	18		
114	Refrigeration Piping c/w insulation	m	30		
115	Condensate drain c/w insulation	m	10		
116	Electrical cabling between isolator, indoor and outdoor units		Item		
117	Blue Chem treatment of the condensing units	No	1		
118	Wall mounted brackets	No	2		
	<u>Supply, installation and commissioning</u>				
	<u>Split unit - Goods Receiving Office</u>				
119	18 000 BTU Inverter type wall mounted split unit (Unit will be without infra red or motion sensors)	No	1		
120	Refrigeration Piping c/w insulation	m	30		
121	Condensate drain c/w insulation	m	10		
122	Electrical cabling between isolator, indoor and outdoor units		Item		
123	Blue Chem treatment of the condensing units	No	1		
124	Wall mounted brackets	No	2		
	<u>VENTILATION</u>				
	<u>Ventilation and Extraction system</u>				
	<u>Ventilation Fans</u>				
	Axial Flow Ventilation Fan c/w galvanised supports and anti-vibration mountings				
	Carried Forward			R	
	SECTION 2				
	Bill No. 13				
	Mechanical Work				

Brought Forward				R	
125	Axial Fan FA1, Ø500 mm	No	2		
126	Axial Fan FA1, Ø315 mm	No	2		
<u>Sound Attenuators</u>					
127	Pod attenuator, ø 500 mm x 1000 mm long	No	4		
128	Pod attenuator, ø 315 mm x 600 mm long	No	4		
<u>Canvas collar</u>					
129	Canvas collar, ø 500 mm	No	4		
130	Canvas collar, ø 315 mm	No	4		
<u>Tube Ventilation Fans</u>					
131	Tube Fan FT 1, Ø200 mm	No	2		
132	Tube Fan FT 2, Ø200 mm	No	2		
<u>Wall Fans</u>					
133	Wall Mounted Fan, Ø150	No	3		
<u>Dampers</u>					
<u>Ballancing Dampers</u>					
134	Balancing Damper, DA 1 Butterfly, Ø150	No	6		
135	Balancing Damper, DA 1 Butterfly, Ø200	No	2		
<u>Terminals</u>					
<u>Weather Louvers</u>					
136	Weather Louver 400 x 700 mm , WL1	No	2		
137	Weather Louver 400 x 400 mm, WL 2	No	4		
138	Weather Louver 700 x 1100 mm, WL 3	No	2		
139	Weather louver 250 x 800 mm, WL 4	No	1		
Carried Forward				R	
SECTION 2 Bill No. 13 Mechanical Work					

Brought Forward				R	
140	Weather Louver 200 x 600 mm, WL 5	No	1		
	<u>Supply Air Louvers</u>				
141	Supply Air Louvers, 45 degree, 250 x 250 mm, SG 1	No	1		
142	Supply Air Louvers, 45 degree, 200 x 200 mm, SG 2	No	1		
143	Supply Air Louvers, 45 degree, 150 x 250 mm, SG 3	No	1		
144	Supply Air Louvers, 45 degree, 300 x 300 mm, SG 4	No	2		
	<u>Extraction Louver</u>				
145	Extraction Louver, 400 x 300 mm, EG 1	No	6		
146	Extraction Louver, 200 x 300 mm, EG 2	No	2		
147	Extraction Louver, 300 x 400 mm, EG 3	No	2		
	<u>Door Grilles</u>				
148	Door Grill, 400 x 400, DG 1	No	3		
149	Door Grill, 300 x 300, DG 2	No	3		
	<u>Disc Valves</u>				
150	Disc valve, Dia 200, DV 02	No	4		
151	Disc valve, Dia 250, DV 03	No	8		
	<u>Supply and Return Air Ducting</u>				
	<u>Insulated Ducting and ancillaries including supports and fixings</u>				
	Insulated, Low pressure, galvanized ducting				
152	Galvanized ducting, Category 1	m	41		
153	Galvanized ducting, Category 2	m	42		
154	Round Ducting, Dia 150	m	45		
Carried Forward				R	
SECTION 2 Bill No. 13 Mechanical Work					

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Brought Forward				R	
155	Round Ducting, Dia 200	m	58		
	<u>Extra over for fittings (bends, transformations, stop ends, shoes, square to rounds, take-offs, offsets) c/w insulation</u>				
156	Galvanized duct Transformations, Category 1	No	18		
157	Galvanized duct Transformations, Category 2	No	7		
158	Galvanized duct Bend, Category 1	No	6		
159	Galvanized duct Bend, Category 2	No	8		
	<u>Cyclone</u>				
160	Cyclone c/w hopper and collector mounting frame and filters, 2200 l/s @ 700Pa	No	1		
161	Rigging	No	1		
162	Dry air compressor instillation connected to the refers pulse filtration system	No	1		
	<u>Electrical Extraction System</u>				
163	Motor Control Centre c/w instrumentation, locks and switches, switchgear and termination of incoming cable, to house the following switchgear, extraction air-fan, and controls	No	2		
	<u>Electrical Cyclone System</u>				
164	Motor Control Centre c/w instrumentation, locks and switches, switchgear and termination of incoming cable, to house the following switchgear, extraction air fan and controls	No	1		
165	Plant room wiring	No	3		
166	Electrical field wiring to all equipment	No	3		
167	To include all cable ways, conduits and supports	No	3		
Carried Forward				R	
SECTION 2 Bill No. 13 Mechanical Work					

Brought Forward			R	
	<u>SUNDRY</u>			
168	Allowance for Mechanical contractor's preliminaries and general costs	Item		
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 13				
Mechanical Work				

Item No		Quantity	Rate	Amount
	<u>BILL NO 14</u>			
	<u>PAINTWORK</u>			
	<u>STANDARD PREAMBLES</u>			
	The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>DESCRIPTIONS</u>			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	<u>PREPARATORY WORK TO EXISTING WORK</u>			
	Previously painted plastered surfaces			
	Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth			
	Previously painted metal surfaces			
	Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
	Previously painted wood surfaces			
	Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth			
	Carried Forward		R	
	SECTION 2 Bill No. 14 Paintwork			

Brought Forward			R	
<u>PAINT SPECIFICATIONS</u>				
All painting shall be done in accordance with 'Plascon-Evans' specifications				
<u>PAINTWORK, ETC TO NEW WORK ON</u>				
<u>One coat "Dulux Trade Alkali Resistant Primer" and two coats "Dulux Acrylic PVA"</u>				
1	On internal walls	m2	6 060	
<u>One coat Professional Plaster Primer and two coats Plascon Velvagio Polyurethane enamel paint on:</u>				
2	On ceilings	m2	808	
<u>One coat 'Professional Plaster Primer (PP700)' and two coats "Plascon Wall and All" Pure Acrylic PVA</u>				
3	On external walls	m2	3 398	
<u>WOOD SURFACES WITH</u>				
<u>One coat oil wood primer, one coat universal undercoat and two coats polyurethane enamel paint on</u>				
4	Doors	m2	40	
<u>PLASTER BOARD SURFACES WITH</u>				
<u>One coat Professional Plaster Primer and two coats Plascon Velvagio Polyurethane enamel paint on:</u>				
5	Ceilings and cornices	m2	72	
<u>One coat Crown PVA primer and two coats Plascon Professional low sheen white PVA paint on:</u>				
6	Bulkheads	m2	34	
Carried Forward			R	
SECTION 2 Bill No. 14 Paintwork				

Brought Forward			R	
<u>ON METAL</u>				
<u>One coat calcium plumbate primer on galvanised steel</u>				
7	Backs of frames, linings, etc not exceeding 300mm wide	m	115	
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 14				
Paintwork				

Item No		Quantity	Rate	Amount
	<u>BILL NO. 15</u>			
	<u>PROVISIONAL SUMS</u>			
	<u>STANDARD PREAMBLES</u>			
	The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Work executed by direct contractors</u>			
	Work listed under the heading "DIRECT CONTRACTORS WORK" will commence during the execution of this contract and the contractor shall allow free access to the site for these direct contractors. The contractor shall prepare a programme in conjunction with these direct contractors in order to complete the work successfully. The direct contractors will be regarded as nominated contractors but payment will not be made to them via the contractor. The estimated values of these contracts are listed to enable the contractor to determine profit and attendances, if required			
	<u>General</u>			
	Unless otherwise described, all prime cost amounts and provisional sums exclude the cash discount of 5% and include for delivery to site of all articles concerned			
	All prime cost amounts and provisional sums are net and include for delivery to site of all articles concerned			
	<u>Preliminaries</u>			
	The contractor is referred to the Preliminaries for further amplification of "Prime Cost Amounts and Provisional Sums"			
	Carried Forward			
	SECTION 2 Bill No. 15 Provisional Sums		R	

<p style="text-align: right;">Brought Forward</p> <p>PROVISIONAL ITEMS TO BE DESCRIBED</p> <p><u>NOTE</u></p> <p>All prices/rates to be net, excluding Value Added Tax</p> <p><u>CASH DISCOUNT</u></p> <p>No cash discount. All provisional sums are "NET"</p> <p><u>GENERAL</u></p> <p>The following provisional sums are for work to be executed under separate nominated sub-contracts by firms of Specialists</p> <p>All provisional sums cover the supply and installation of material, equipment, plant, etc., including the commissioning thereof, where applicable</p> <p><u>PROFIT</u></p> <p>Provisional sums are net and do not include builder's discount. The tenderer may allow next to "Profit" items for any profit he might consider necessary</p> <p><u>ATTENDANCE</u></p> <p>The Tenderer may allow next to "Attendance" items for any attendance he might consider necessary and/or for the recovery of any expenses incurred by him for providing attendance to nominated sub-contractors, i.e. by means of the installation of the necessary water/power meters, etc.</p> <p>The tenderer is also referred to Clause 20 in the "Preliminaries" section for the definitions and adjustment of "Attendance"</p> <p style="text-align: right;">Carried Forward</p> <p>SECTION 2 Bill No. 15 Provisional Sums</p>		R	
		R	

	Brought Forward		R	
	<u>LIGHTNING PROTECTION AND EARTHING SYSTEM</u>			
1	Provide an amount of R 100 000.00 (One Hundred and Thousand Rand) for lightning protection and earthing systems by a specialist	Item		
2	Profit for above item	Item		
3	Attendance on ditto	Item		
	<u>DIESEL STANDBY GENERATOR</u>			
4	Provide an amount of R 520 000.00 (Five Hundred and Twenty Thousand Rand) for diesel general to electrical engineers specification to be supplied and installed by a specialist	Item		
5	Profit for above item	Item		
6	Attendance on ditto	Item		
	<u>FUEL / DIESEL STORAGE TANK INCLUDING MAINTENANCE</u>			
7	Provide an amount of R 20 000.00 (Twenty Thousand Rand) for diesel storage tank including 12 months maintenance by a specialist	Item		
8	Profit for above item	Item		
9	Attendance on ditto	Item		
	<u>STEEL STAIRCASES</u>			
10	Provide an amount of R 200 000.00 (Two Hundred Thousand Rand) for design and installation of steel stairs by a specialist	m		
11	Profit for above item	Item		
12	Attendance on ditto	Item		
	Carried Forward		R	
	SECTION 2 Bill No. 15 Provisional Sums			

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Brought Forward			R	
<u>BUDGETARY ALLOWANCES</u>				
13	Allow an amount of R150 000.00 (One Hundred and Fifty Thousand Rand) for refurbishment of existing steel roof canopies	Item		
14	Allow an amount of R15 000.00 (Fifteen Thousand Rand) for connection of sprinkler water pipework to municipal mains	Item		
15	Allow an amount of R50 000.00 (Fifty Thousand Rand) for builders work in connection with dock levellers	Item		
16	Allow an amount of R60 000.00 (Sixty Thousand Rand) for builders work in connection plumbing and drainage installation	Item		
17	Allow an amount of R150 000.00 (One Hundred and Fifty Thousand Rand) for all signage including road markings	Item		
Carried Forward to Summary of Section No. 2			R	
SECTION 2				
Bill No. 15				
Provisional Sums				

[illegible]

Item No		Quantity	Rate	Amount
	<p><u>BILL NO 1</u></p> <p><u>STANDARD PREAMBLES</u></p> <p>The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions and Preambles</u></p> <p>The full descriptions of the items and all preambles in the previous and following trades, shall, unless otherwise stated, also be applicable to the relevant items in this trade.</p> <p><u>View site</u></p> <p>Before submitting this 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>Testing of material and filling:</u></p> <p>Descriptions of earth filling, compaction, etc shall be deemed to include for all necessary testing required in accordance with theSABS 1200 series.</p> <p><u>ROADS AND PARKING CONSTRUCTION</u></p>			
1	<p>Earth filling, etc., under roads:</p> <p style="text-align: right;">Carried Forward</p> <p>SECTION 3 Bill No. 1 External Works</p>	m2	9 618	
			R	

**SARS CUSTOMS
NEW PIER STATE WAREHOUSE
GATE 5 BAYHEAD ROAD
BAYHEAD, DURBAN**

Brought Forward			R	
2	Rip, scarify as necessary and compact natural ground or excavated surfaces for a depth of 150mm to a density of at least 98% Mod. AASHTO to minimum G9 quality maximum density.	m2	9 618	
3	Construct 300mm thick base layer of G2 crusher run obtained from commercial sources, compacted in layers not exceeding 150mm thick to a density of at least 98% Mod. AASHTO density.	m3	4 328	
4	50mm Thick course river sand supplied by the contractor	m3	481	
5	Under floors etc, including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	493	
<u>Additional tests required by the engineer:</u>				
6	Modified AASHTO density test.	No	5	
7	Natural california bearing ratio test.	No	3	
8	Road indicator test.	No	8	
9	Field density test including optimum moisture content for reducing per test.	No	5	
<u>Bituminous premix road surfacing:</u>				
10	Primer coat bituminous primer road surfacing MSP 1 to crusher run base course.	m2	4 008	
11	25mm thick premix wearing course (13.2mm).	m2	1 603	
12	30mm thick premix wearing course (13.2mm).	m2	2 405	
<u>Concrete Paved Areas</u>				
<u>25MPa/19mm reinforced concrete:</u>				
13	200mm Thick paving laid against excavated surfaces	m3	100	
Carried Forward			R	
SECTION 3 Bill No. 1 External Works				

	Brought Forward			R	
	<u>PRECAST CONCRETE PAVERS</u>				
	<u>Vibro 25 Mpa Industrial Interlock concrete paver colour Grey (Code: INDINT2), size 220 x 100 x 80mm thick, manufactured in accordance with SANS 1058:2012, laid in herringbone pattern in accordance with SANS 1200 MJ and CMA Concrete Block Paving Manuals, with a minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on sub grade conforming to SANS 1200 D Degree Of Accuracy I. Paving to be inspected and re-sanded after three months.</u>				
14	80mm Thick pavers	m2	2 800		
15	220mm Boarder paver to herring bone patterned paving	m	96		
	<u>BOLLARDS, ETC</u>				
16	"Turnstar" or similar approved 304 grade stainless steel finished Fixed bollard, overall size 127mm diameter x 800mm high with fishtail fixing lugs cast into 500 x 500 x 500mm deep concrete base all in accordance with the manufacturer's recommendations.	No	20		
	<u>STORMWATER DRAINAGE</u>				
	<u>uPVC pipes and fittings:</u>				
	<u>Excavate in all materials for trenches, backfill, compact and dispose of surplus material - for 300mm diameter pipes:</u>				
17	For depths exceeding 1m and not exceeding 2m.	m3	21		
	<u>Excavate in all materials for trenches, backfill, compact and dispose of surplus material - for 450mm diameter pipes:</u>				
18	For depths exceeding 1m and not exceeding 2m.	m3	164		
19	For depths exceeding 2m and not exceeding 3m.	m3	250		
	Carried Forward			R	
	SECTION 3 Bill No. 1 External Works				

Brought Forward			R	
	<u>Extra over excavation in earth for excavation in:</u>			
20	Extra over item above for intermediate material.	m3	377	
	<u>Provision of bedding from trench excavation:</u>			
21	Selected fill material.	m3	127	
	<u>Supply of bedding material from commercial sources including haulage:</u>			
22	Class B bedding material for 300mm diameter pipes.	m3	2	
23	Class B bedding material for 450mm diameter pipes.	m3	40	
	<u>Supply, lay and bed pipes complete non-pressure pipes with couplings:</u>			
24	300mm Diameter concrete with spigot and socket joint Class 100D.	m	21	
25	450mm Diameter concrete with spigot and socket joint Class 100D.	m	357	
26	<u>Supply and install manholes, catch pits, grid inlets, etc.:</u>	Hrs		
27	Grid Inlet size 600 x 900 mm wide and not exceeding 2000mm deep internally, complete including all necessary excavations, filling and back filling, blinding layer of concrete, reinforced concrete surface bed, brick walls, reinforced concrete slab, oil separator pipes, opening for and including Besaans & Du Plessiss Ref 2898C storm water grating and frame.	No	15	
	<u>Gratings, covers and frames:</u>			
28	450 x 600mm x 99,5kg cast iron dished grating and frame.	No	25	
	<u>Connection to Municipal mains:</u>			
29	Allow for connection of stormwater drainage system to Municipality mains.		Item	
Carried Forward			R	
SECTION 3 Bill No. 1 External Works				

Brought Forward			R	
	<u>Testing:</u>			
30	Allow for testing of the entire storm water drainage system to Engineer's satisfaction.	Item		
	<u>SOIL DRAINAGE</u>			
	<u>Excavate in all materials for trenches, backfill, compact and dispose of surplus material - for 150mm diameter pipes:</u>			
31	For depths exceeding 1m and not exceeding 2m.	m	129	
32	For depths exceeding 2m and not exceeding 3m.	m	100	
	<u>Extra over excavation in earth for excavation in:</u>			
33	Extra over item above for intermediate material.	m	110	
	<u>Provision of bedding from trench excavation:</u>			
34	Selected fill material.	m3	45	
	<u>Supply of bedding material from commercial sources including haulage:</u>			
35	Class B bedding material for 150mm diameter pipes.	m3	20	
	<u>Supply, lay and bed pipes complete Class 34 uPVC pipes:</u>			
36	150mm Diameter pipes	m	160	
	<u>Extra over Class 34 uPVC pipes for fittings:</u>			
37	150mm Bend	No	1	
38	150mm Reducing junction	No	1	
39	150mm Junction	No	1	
40	150mm Rodding eye	No	2	
	Carried Forward		R	
	SECTION 3 Bill No. 1 External Works			

Brought Forward			R	
	<u>Supply and install manholes, catch pits, grid inlets, etc.:</u>			
	Inspection chambers, manholes, etc. complete a including covers, channels, excavations backfilling, etc			
41	Excavate for and construct 1020mm internal diameter circular precast manhole exceeding 750mm but not exceeding 1000mm deep with light duty circular precast concrete cover and frame, 150 mm thick x 1020 mm thick unreinforced concrete grade 25/19 base, benching and including all risk of collapse and backfilling etc on completion	No	4	
42	Excavate for and construct 750mm internal diameter circular precast manhole exceeding 1750mm but not exceeding 2000mm deep with light duty circular precast concrete cover and frame, 150 mm thick x 1020 mm thick unreinforced concrete grade 25/19 base, benching and including all risk of collapse and backfilling etc on completion	No	8	
	<u>Sundries</u>			
43	300 x 300 x 300mm Precast concrete inspection eye marker slab set in ground	No	12	
	<u>Gratings, covers and frames:</u>			
44	450 x 600mm x 99,5kg cast iron dished grating and frame.	No	12	
	<u>Connection to Municipal mains:</u>			
45	Allow for connection of soil drainage system to Municipality mains.		Item	
	<u>Testing:</u>			
46	Allow for testing of the entire soil drainage system to Engineer's satisfaction		Item	
Carried to Final Summary			R	
SECTION 3				
Bill No. 1				
External Works				

Section No	<u>FINAL SUMMARY</u>	Page No		Amount	
1	SECTION 1	17			
2	SECTION 2	87			
3	SECTION 3	93			
	Sub-Total			R	
	<u>CONTINGENCY AMOUNT</u>				
	Provide an amount for contingencies equal to 10% of the total preliminaries and building works, all to be used as directed and approved by the client	Item			
	Sub-Total			R	
	Add 15% VAT			R	
	Carried to Form of Tender			R	