Item No		Quantity	Amount	
	BILL NO. 1			
	PRELIMINARIES NOTES			
	i) The **agreement** is to be the JBCC Principal Building Agreement, Edition 6.2 - May 2018, and other contract documents that together form the contract between the employer and contractor			
	ii) The **preliminaries** are to be the JBCC General Preliminaries Edition 6.2 - May 2018 prepared by the Joint Building Contracts Committee, shall be deemed to be incorporated herein			
	iii) Tenderers are referred to the above mentioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary			
	iv) Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading			
	v) Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")			
	vi) If Alternative A as set out in clause B10.3 hereinafter is to be used for the adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time			

	Carried Forward	R		

	Brought Forward	R		
	SECTION A: PRINCIPAL BUILDING AGREEMENT			
	Definitions (A1)			
1	Definitions and interpretation (clause 1)F:..... V:..... T:.....	Item		
	Objective and Preparation (A2)			
2	Offer acceptance and performance (clause 2)F:..... V:..... T:.....	Item		
	Preparation (A3-A14)			
3	Documents (clause 3)F:..... V:..... T:.....	Item		
4	Design responsibility (clause 4)F:..... V:..... T:.....	Item		
5	Employer's agents (clause 5)F:..... V:..... T:.....	Item		
6	Site representative (clause 6)F:..... V:..... T:.....	Item		
7	Compliance with regulations (clause 7)F:..... V:..... T:.....	Item		
8	Works risk (clause 8)F:..... V:..... T:.....	Item		
9	Indemnities (clause 9)F:..... V:..... T:.....	Item		
10	Works insurances (clause 10)			
	F:..... V:..... T:.....	Item		
11	Liability insurances (clause 11)F:..... V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
12	Effecting insurance (clause 12)F:..... V:..... T:.....	Item		
13	State Provisions (clause 13)			
	F:..... V:..... T:.....	Item		
14	Security (clause 14)F:..... V:..... T:.....	Item		
	Execution (A15-A23)			
15	Preparation for and execution of the works (clause 15) fixed F:..... V:..... T:.....	Item		
16	Access to the works (clause 16)F:..... V:..... T:.....	Item		
17	Contract instructions (clause 17)F:..... V:..... T:.....	Item		
18	Setting out of the works (clause 18)F:..... V:..... T:.....	Item		
19	Assignment (clause 19)F:..... V:..... T:.....	Item		
20	Nominated subcontractors (clause 20)F:..... V:..... T:.....	Item		
21	Selected subcontractors (clause 21)F:..... V:..... T:.....	Item		
22	Employer's Direct Contractors (clause 22)			
	F:..... V:..... T:.....	Item		
23	Contractor's Domestic Sub-Contractors (Clause 23)			
	F:..... V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
	Completion (A24-A30)			
24	Practical completion (clause 24)F:..... V:..... T:.....	Item		
25	Works completion (clause 25)F:..... V:..... T:.....	Item		
26	Final completion (clause 26)F:..... V:..... T:.....	Item		
27	Latent defects liability period (clause 27)F:..... V:..... T:.....	Item		
28	Sectional completion (clause 28)F:..... V:..... T:.....	Item		
29	Revision of date of practical completion (clause 29)F:..... V:..... T:.....	Item		
30	Penalty for non-completion (clause 30)F:..... V:..... T:.....	Item		
	Payment (A31 - A35)			
31	Interim payment to the contractor (clause 31)F:..... V:..... T:.....	Item		
32	Adjustment to the contract value (clause 32)F:..... V:..... T:.....	Item		
33	Recovery of expense and loss (clause 33)F:..... V:..... T:.....	Item		
34	Final account and final payment (clause 34)F:..... V:..... T:.....	Item		
35	Payment to other parties (clause 35) F:..... V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
	Cancellation (A36-A39)			
36	Cancellation by employer - contractor's default (clause 36)F:..... V:..... T:.....	Item		
37	Cancellation by employer - loss and damage (clause 37)F:..... V:..... T:.....	Item		
38	Cancellation by contractor - employer's default (clause 38)F:..... V:..... T:.....	Item		
39	Cancellation - cessation of the works (clause 39)F:..... V:..... T:.....	Item		
	Dispute (A40)			
40	Dispute Settlement (clause 40)			
	F:..... V:..... T:.....	Item		
	Contract variables (A41)			
	THE SCHEDULE			
	Information necessary for completion of those clauses contained in the schedule which are necessary for tender purposes is given hereunder			
41	Pre-tender information (clause 41)			
	F:..... V:..... T:.....	Item		
	Carried Forward	R		

Section No. 1
Bill No. 1
Preliminaries
TENDER BILLS OF QUANTITIES

		Brought Forward	R		
	41.1 CONTRACTING AND OTHER PARTIES				
	42.1.1 Employer:	Department of Health Free State			
	Postal Address:	Bophelo House Cnr Harvey & Charlotte Maxeke Street Bloemfontein 9300			
	Telephone:				
	Fax:				
	e-mail:	monyanetg@fshealth.gov.za			
	Domicilium:	Bophelo House Cnr Harvey & Charlotte Maxeke Street Bloemfontein 9300			
	41.1.2				
	Agents service:	Principal Agent			
	Agent (1)	Hoboyi & Associates Project Managers			
	Address:	Block A, The Crescent Office Park 3 Eglin Rd, Sunninghill, Sandton 2157			
	Telephone:	011 234 0777			
	Facsimile:				
	Email:	tumi@hoboyi.co.za			
		Carried Forward	R		

		Brought Forward	R		
	41.1.3 Agents service:	Architect			
	Agent (2)	Masha Design Group			
	Address:	23 Tecoma Street, Barea, East London, 5241,			
	Telephone: Facsimile: Email:	087 153 5891 cqwesha11@gmail.com			
	41.1.4 Agents service: Quantity Surveyor				
	Agent (3)	Quantum Built & Environment Consultants (Pty) Ltd			
	Address:	74 Stals Road, Wilgehof, Bloemfontein,			
	8301 Telephone: Facsimile: Email:	051 430 8240 siyasanga@quantumbuilt.co.za			
	41.1.5 Agents service:	Civil & Structural Engineer			
	Agent (4)	Tsela Tsweu Consulting Engineers			
	Postal Address: No.58A	Kellner Street Westdene Bloemfontein 9301			
	Telephone:	+27 51 101 1832			
	Email:	janu@ttconsult.co.za			
		Carried Forward	R		

		Brought Forward	R		
	41.1.5 Agents service: Electrical Engineer Agent (5) Bokamoso Consulting Engineers Postal Address: Shop No.12 Schwedehm Centre 35 Main Road Gonube, East London Telephone: +27 82 467 4918 Email: info@bokamoco.co.za 41.1.6 Agents service: Mechanical Engineer Agent (6) Takusa Consulting Services Postal Address: 65 Bram Fischer Drive Robindale Randburg 2194 Telephone: +27 11 110 8724 Email: londani@takuconsulting.co.za 41.1.7 Agents Service : OHS Consultant Agent (7) Technomobile Postal Address: Telephone: +27 74 028 2835 Email: richard@technomobile.co.za				
		Carried Forward	R		

	Brought Forward	R		
	41.2 CONTRACT DETAILS			
	41.2.1 Works Description:			
	- Major upgrades to existing Main Pax Clinic Building including Electrical & Mechanical Installation			
	- Construction of new EMS Building complete			
	- Construction of new Staff Accommodation Building complete			
	- Construction of new Guard House complete			
	- Construction of new Medical Waste Building			
	- Construction of Garden Room			
	- Civil Works construction (Stormwater, Sewer system, Bulk water supply, Roads and Paving)			
	41.2.2 Site Description:			
	Existing Premises of Pax Clinic, B A A Spies Street, Viljoenskroon			
	41.2.3 Work or installations by direct contractors:			
	No			
	41.2.4 This agreement is for a government contract:			
	Yes			
	41.2.5 Date on which possession of the site is intended to be given:			
	To be advised			
	41.2.6 Period for the commencement of the works after the contractor takes possession of the site			
	Nil *working days*			
	Carried Forward	R		

	Brought Forward	R		
	41.2.7 Intended date of practical completion and the penalty per calendar day for the works **as a whole** ***12 Calendar months*** *after contract commencement including builders holidays* Penalty: **1,75 cents per R100** of construction amount per Calendar Day. 41.2.8 Intended date of practical completion and the penalty per calender day for the works in **sections**: **Section 1** ..... *Date* R..... *Penalty Amount* **Section 2** ..... *Date* R..... *Penalty Amount* **Section 3** ..... *Date* R..... *Penalty Amount* **Section 4** ..... *Date* R..... *Penalty Amount* 41.2.9 The law applicable to this agreement shall be that of *(country)* **Republic of South Africa**			
	Carried Forward	R		

	Brought Forward	R		
	41.3 INSURANCES			
	41.3.1 Contract works insurance to be effected by:			
	Contractor:			
	For the Sum of Contract Sum + 20%			
	With a deductible of (To be decided by the contractor)			
	41.3.2 Supplementary insurance is required			
	Yes			
	41.3.3 Public liability insurance to be effected by:			
	Contractor:			
	For the Sum of R5 000 000.00			
	With a deductible of (To be decided by the contractor)			
	41.4 DOCUMENTS			
	41.4.1 Waivers of **contractors lien** or right of continuing possession is required			
	Yes			
	41.4.2 Number of construction document copies to be supplied to the **contractor** free of charge:			
	3 (Three) Number of			
	41.4.3 **Bills of Quantities/Lump sum document** schedule of rates drawn up in accordance with:			
	ASAQS Standard System of Measuring Building Work: Sixth Edition, revised in February 1999			
	41.4.4 On acceptance of the tender the bills of quantities/lump sum document is to be submitted within **working days**			
	Priced bills of quantities to be submitted with tender form of acceptance.			
	Carried Forward	R		

	Brought Forward	R		
	41.4.5 JBCC Engineering General Conditions are to be included in the **contract documents:** *No*			
	41.4.6 The contract value is to be adjusted using escalation adjustment indices *Yes*			
	41.4.7 Details of changes made to the provision of JBCC standard documentation: *[An addendum is to be attached should the space provided be insufficient]*			
	Carried Forward	R		

	Brought Forward	R		
	SECTION B: PRELIMINARIES			
	Definition and interpretation (B1)			
42	Definition and interpretation (B1.1 - B1.6.5)F:..... V:..... T:.....	Item		
	Documents (B2)			
43	Checking of documents (B2.1)F:..... V:..... T:.....	Item		
44	Provisional bills of quantities (B2.2)F:..... V:..... T:.....	Item		
45	Availability of construction documentation (B2.3) F:..... V:..... T:.....	Item		
46	Interests of agents (B2.4)F:..... V:..... T:.....	Item		
47	Priced documents (B2.5)F:..... V:..... T:.....	Item		
48	Tender submission (B2.6)F:..... V:..... T:.....	Item		
	The site (B3)			
49	Defined works area (B3.1)F:..... V:..... T:.....	Item		
50	Geotechnical investigation (B3.2)F:..... V:..... T:.....	Item		
51	Inspection of the site (B3.3)F:..... V:..... T:.....	Item		
52	Existing premises occupied (B3.4)F:..... V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
53	Previous work - dimensional accuracy (B3.5)F:..... V:..... T:.....	Item		
54	Previous work - defects (B3.6)F:..... V:..... T:.....	Item		
55	Services - known (B3.7)F:..... V:..... T:.....	Item		
56	Services - unknown (B3.8)F:..... V:..... T:.....	Item		
57	Protection of trees etc (B3.9)F:..... V:..... T:.....	Item		
58	Articles of value (B3.10)F:..... V:..... T:.....	Item		
59	Inspection of adjoining properties etc (B3.11)F:..... V:..... T:.....	Item		
	Management of contract (B4)			
60	Management of the works (B4.1) F: V: T:	Item		
61	Programming for the works (B4.2)F:..... V:..... T:.....	Item		
62	Progress meetings (B4.3)F:..... V:..... T:.....	Item		
63	Technical meetings (B4.4)F:..... V:..... T:.....	Item		
	Samples and shop drawings (B5)			
64	Samples of materials (B5.1)F:..... V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
65	Workmanship samples (B5.2)F:..... V:..... T:.....	Item		
66	Shop drawings (B5.3)F:..... V:..... T:.....	Item		
	Temporary works and plant (B6)			
67	Deposits and fees (B6.1)F:..... V:..... T:.....	Item		
68	Enclosure of the works (B6.2)F:..... V:..... T:.....	Item		
69	Advertising (B6.3)F:..... V:..... T:.....	Item		
70	Plant, equipment, sheds and offices (B6.4)F:..... V:..... T:.....	Item		
71	Main notice board (B6.5)F:..... V:..... T:.....	Item		
72	Subcontractors notice board (B6.6)F:..... V:..... T:.....	Item		
	Temporary services (B7)			
73	Location (B7.1)F:..... V:..... T:.....	Item		
74	Water (B7.2) **Alternative A shall apply** F:..... V:..... T:.....	Item		
75	Electricity (B7.3) **Alternative A shall apply** F:..... V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
76	Telecommunication equipment (B7.4) **Alternative A shall apply**			
	F:..... V:..... T:.....	Item		
77	Ablution facilities (B7.5) **Alternative A shall apply**			
	F:..... V:..... T:.....	Item		
	Prime cost amounts (B8)			
78	Responsibility for prime cost amounts (B8.1)F:..... V:..... T:.....	Item		
	Attendance on N/S Subcontractors (B9)			
79	General attendance (B9.1)F:..... V:..... T:.....	Item		
80	Special attendance (B9.2)F:..... V:..... T:.....	Item		
81	Commissioning - Fuel, water and power (B9.3)F:..... V:..... T:.....	Item		
	Financial aspects (B10)			
	Statutory taxes, duties and levies (B10.1)F:..... V:..... T:.....	Item		
82	Payment of preliminaries (B10.2) **Alternative B shall apply**			
	F:..... V:..... T:.....	Item		
83	Adjustment of preliminaries (B10.3)F:..... V:..... T:.....	Item		
84	Payment certificate cash flow (B10.4)F:..... V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
85	Contractor information supply (B10.5)F:..... V:..... T:.....	Item		
	General (B11)			
86	Protection of works (B11.1)F:..... V:..... T:.....	Item		
87	Protection/isolation of existing/sectionally occupied works (B11.2)F:..... V:..... T:.....	Item		
88	Site security (B11.3)F:..... V:..... T:.....	Item		
89	Notice before covering work (B11.4)F:..... V:..... T:.....	Item		
90	Disturbance (B11.5)F:..... V:..... T:.....	Item		
91	Works cleaning and clearing (B11.6)F:..... V:..... T:.....	Item		
92	Vermin (B11.7)F:..... V:..... T:.....	Item		
93	Overhand work (B11.8)F:..... V:..... T:.....	Item		
	Schedule of variables (B12)			
94	Pre-tender information (B12.1)F:..... V:..... T:.....	Item		
	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional: *No*			
	12.1.2 Availability of construction documentation (B2.3) Construction documentation is not complete *Yes*			
	Carried Forward	R		

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TENDER BILLS OF QUANTITIES

	Brought Forward	R		
	12.1.3 Interest of agents (B2.4) *None* 12.1.4 Defined works area (B3.1) *Refer to the attached Architectural Site Development Plan* 12.1.5 Geotechnical investigation (B3.2) *Attached herewith* 12.1.6 Existing premises occupied (B3.4) *No* 12.1.7 Services - known (B3.7) *Existing services and points of connection are known and will be pointed out on site by the Principal Agent.* 12.1.8 Protection of trees (B3.9) *N/A* 12.1.9 Inspection of adjoining properties (B3.11) *N/A* 12.1.10 Enclosure of the works (B6.2) *Site to be properly barricaded with controlled access.* 12.1.11 Offices (B6.4.3) The contractor shall provide, maintain and remove on completion of the works an office for meetings purposes, amongst others, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, meeting table, chairs, drawing stool and drawing board. The office shall be kept clean and fit for use at all times			
	Carried Forward	R		

	Brought Forward		R		
	12.1.12 Main notice board (B6.5) *One main notice board is required.*				
	12.1.13 Subcontractors notice board (B6.6) A notice board is required *No*				
	12.1.14 Water (B7.2) Alternative Selected: A				
	12.1.15 Electricity (B7.3) Alternative selected: A				
	12.1.16 Telecommunications (B7.4) Alternative selected: A				
	12.1.17 Ablution facilities (B7.5) Alternative selected: A				
	12.1.8 Special attendance (B9.2) Subcontractor (1) details: N/A				
	12.1.19 Protection of the works (B11.1)				
	12.1.20 Protection of existing/sectionally occupied works (B11.2) Protection is required *No*				
	12.1.21 Disturbance (B11.5) *Refer to clause B3.4*				
95	Post tender information (B12.2)F:..... V:..... T:.....		Item		
	Carried Forward		R		

		Brought Forward	R		
	12.2.1 Payment of preliminaries Alternative selected: B				
	12.2.2 Adjustment of preliminaries Alternative selected:				
	12.2.3 Additional agreed preliminaries items .....- .....- .....-				
		Carried Forward	R		

Section No. 1
Bill No. 1
Preliminaries
TENDER BILLS OF QUANTITIES

	Brought Forward	R		
	SECTION C: SPECIFIC PRELIMINARIES			
	Section C: Specific Preliminaries:			
96	Proprietary branded products The contractor shall take delivery of, handle, store, use, apply and/or fix all proprietary branded products in strict accordance with the manufacturer's instructions after consultation with the manufacturer's authorised representative. F:.....V:..... T:.....	Item		
97	Overtime Tenderers will be allowed to work two shifts in order to meet the completion date. Any costs associated with this requirement will be priced under this item Should overtime be required to be worked for any other reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the employer. F:.....V:..... T:.....	Item		
98	As built drawings The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the principal agent and the structural engineer for their records. F:.....V:..... T:.....	Item		
99	Site instructions Contract 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		
	Carried Forward	R		

	Brought Forward	R		
100	Non Cession of Monies The Contractor shall NOT cede nor assign his rights or claims to any monies due or to become due under this contract. F:.....V:..... T:.....	Item		
101	Labour record At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day. F:.....V:..... T:.....	Item		
102	Plant record At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works. F:.....V:..... T:.....	Item		
103	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		
	Carried Forward	R		

	Brought Forward	R		
104	Warranties for materials 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 entity supplying the materials and/or doing the work and shall deliver same to the principal agent on the final completion of the contract The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity 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 execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor F:.....V:..... T:.....	Item		
105	Co-operation of the contractor for cost management 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 contract value does not exceed the budget F:.....V:..... T:.....	Item		
106	Overloading The contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works or temporary works eg scaffolding, etc. The contractor shall submit details of his proposed loading, storage, plant erection, etc to the principal agent for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the principal agent's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the contractor at his sole expense F:.....V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
107	Propping of floors below The contractor is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of materials and goods and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the principal agent and the cost thereof shall be borne by the contractor F:.....V:..... T:.....	Item		
108	Testing of flat roof waterproofing for water tightness Flat roof waterproof areas shall be prepared with small sand dykes around them of a size and enclosing an area approved by the principal agent, flooded with water and kept "ponded" for at least forty (40) hours as a test to ensure the water tightness of the waterproofing and before any further construction work is carried out above the waterproofing F:.....V:..... T:.....	Item		
109	Advertising rights The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. Position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting the obligations under this agreement F:.....V:..... T:.....	Item		
110	Confidentiality The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works No information regarding this project shall be published or disclosed without the prior written consent of the employer F:.....V:..... T:.....	Item		
	Carried Forward	R		

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	Brought Forward	R		
111	Media releases All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media F:.....V:..... T:.....	Item		
112	Testing of windows for water tightness 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 F:.....V:..... T:.....	Item		
113	Drawings on Site The Contractor shall maintain on Site at all times, a complete set of the latest revisions of the working drawings issued by the Architect, the Engineer, and the Electrical Consultant F:.....V:..... T:.....	Item		
114	Scaffolding No scaffolding is measured as these Bills of quantities are based on the sixth edition of the Standard System for Measuring Building Work. However, the Tenderer is advised to study the drawings as scaffolding may be required in certain areas for use by himself and selected/nominated subcontractors and the contractor must establish or otherwise required by him or selected/nominated subcontractor including taking down and re- erecting as may be necessary and no claims whatsoever will be entertained F:.....V:..... T:.....	Item		
115	Day work			
	Carried Forward	R		

	Brought Forward	R		
	Where in the opinion of the Principal Agent any extra work cannot properly be measured or valued, the Contractor will be allowed day work prices therefore calculated upon the costs defined hereunder together with the stated percentages. The total thus arrived at shall be the total amount recoverable by the Contractor for performing such work 1. The costs to the Contractor or sub-contractor of materials, being the net cost (at current market prices) actually paid for such materials after the deduction of cash discounts or if materials are supplied from the Contractor's or sub-contractor's stock then the cost of such materials shall be based upon the current market price plus the cost of delivery to Site; to which net cost 7,5% thereof shall be added. 2. The cost of labour to the Contractor or sub- contractor, being all items of direct cost of labour actually remunerated to the workmen concerned which shall include the cost of all allowances in terms of the industrial Conciliation Act (where applicable) or any other wage determination applying in the area where the day work is executed: to which labour cost 7,5% shall be added Hourly base rates for labour shall be the current market rates for labour based upon standard working hours and shall be applied in respect of the time spent by workers directly engaged on the particular day works including any operators mechanical plant and transport and erecting and dismantling other plant. If a claim is made that individual workmen have been paid wages and allowances in excess of the minimum legalised rates, then proof must be furnished that such workmen had been so paid prior to the commencement of the day work referred to 3. The rate for mechanical plant shall be commercial hire rates current at the time of executing the day work and shall include fuel and insurance costs The above percentages shall cover head office charges; Site staff including Site supervision; third party and Contractors workmen compensation and unemployment insurance fund contributions; use, repair and sharpening of non-mechanical hand tools; use of erected scaffolding, staging, trestles and the like; use of tarpaulins, protective clothing, artificial lighting, safety and welfare facilities, storage and the like as may be available on the Site; and profit Supporting vouchers reflecting the time spent and materials used in each week shall be delivered for verification to the Principal Agent not later than twenty calendar days after the end of the week concerned. Should the Contractor fail to submit the vouchers within this time, the Principal Agent shall determine a fair price for the work F:.....V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
116	Unauthorised Persons/Workmen on Premises The Contractor shall at all times strictly exclude all unauthorized persons from the site and shall set up notice boards to that effect F:.....V:..... T:.....	Item		
117	Guarantees and Maintenance Instructions/Manuals The Contractor shall obtain and hand over to the Architect on Practical Completion, all relevant guarantees, any operating and maintenance manuals, data or instructions required by the Architect or provided by the Manufacturers, Suppliers, or Sub-contractors The Contractor shall ensure that all warranties and guarantees received are fully ceded to the Employer on Final Completion, failing which the release of the Construction Guarantee will be withheld until this is satisfactorily completed F:.....V:..... T:.....	Item		
118	Removal and Making Good of Temporary Works, etc. on Completion The Contractor shall remove all temporary works, roads, services and the like used for this contract and shall make good to the entire satisfaction of the Architect any damages resulting there from F:.....V:..... T:.....	Item		
119	Indemnities Indemnities shall be sought by the Architect from all Contractors and Sub-contractors undertaking any design responsibility F:.....V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
120	Shop Drawings The term 'Shop Drawings' shall mean drawings, layout drawings, illustrations, schedules, performance charts, brochures, operating manuals, other data which are prepared by the Contractor or Sub-contractor, Manufacturer, Supplier or Distributor and which illustrate some portion of the work The Contractor shall ensure that all shop drawings required for the work in terms of this Contract, all selected/nominated Sub-contracts and/or Architect's instructions, are prepared and submitted timeously in accordance with the following procedure (a) Three prints of shop drawings of all fabricated work, working or setting out drawings, shop details and schedules shall be submitted to the Architect for approval. Such work shall not be carried out until such approval has been given (b) Shop drawings shall be submitted to the Architect for approval at least two weeks prior to the date on which such approval is required in order to comply with the Contract Programme (c) All submissions shall be prepared in accordance with the Contract Drawings and specifications and/or any Architect's instructions and any deviation shall be specifically highlighted in writing, with a detailed explanation of the reason for such deviation, together with any cost and/or time implication Delays in approval of shop drawings due to non- compliance with drawings, specifications and/or Architect's instructions shall not constitute grounds for any claims for delays F:.....V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
121	Location of Temporary Buildings and Temporary Services The Contractor shall provide all necessary temporary works, including temporary roads, tracks, crossings, hard standing, and services, etc., required for his own Sub-contractors use during the construction and maintenance period There is no guarantee given or implied that site conditions will be such that the Contractor will be able to erect such offices, stores and temporary accommodation within the site boundaries and it shall be the Contractors responsibility to adopt whatever measures he deems necessary in this regard and to obtain all necessary permission and pay all costs in connection therewith F:.....V:..... T:.....	Item		
122	Commodities to be New All commodities, goods, articles or materials throughout the building are to be new except where re-use of existing is specified and are to be handled, stored, used and/or fixed with care to ensure that they are in perfect condition when incorporated into the works and thereafter properly protected so as to ensure that they are likewise in perfect condition when handed over at completion of the works F:.....V:..... T:.....	Item		
123	Cost of Claims Costs incurred by the Contractor in the preparation of claims accepted by the Principal Agent shall be borne by the Contractor F:.....V:..... T:.....	Item		
	Carried Forward	R		

	Brought Forward	R		
124	Overloading The Contractor shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the works. The Contractor shall submit details of his proposed loading, storage, plant, erection, etc., to the Architect for their approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the Engineer's requirements in connection with the provision of temporary support work, etc. Any damage caused to the works by overloading shall be made good by the Contractor at his sole expense F:.....V:..... T:.....	Item		
125	Environmental Management Plan The contractor shall take all necessary measures to comply with the Environmental Management Plan (EMP) and make adequate provision to accommodate the requirements of the EMP F:.....V:..... T:.....	Item		
	<u>SUMMARY OF CATAGORIES</u>			
126	Total Preliminaries Unless the parties agree otherwise prior to signature of this agreement, the total preliminaries amount shall for adjustment purposes be dealt with in accordance with option A of the contract data and split as follows: Time Related = %, Fixed = % and Value Related = %. In such instance, despite any provisions to the contrary, option A shall apply for adjustment of preliminaries. Category: Fixed R..... Category: Value R..... Category: Time R.....	Item		
	Carried to Final Summary	R		

Section No. 1
Bill No. 1
Preliminaries
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO 1					
	ALTERATIONS					
	DEMOLITIONS ETV					
	Demolishing and removing					
1	Single storey building with pitched roof 17,3 x 12,3m on plan and 3,2m high at eaves comprising concrete surface bed, Pre-fabricated external walls, Pre-fabricated internal walls and steel roof covering on timber trusses (Existing Staff Accommodation)	No	1			
2	500mm thick concrete slab wash-bay	m2	65			
3	Covered parking comprising of structural steel frame and metal roof sheeting	m2	275			
	REMOVAL OF EXISTING WORK					
	Breaking down and removing brickwork etc					
4	Half brick walls	m2	91			
5	One brick walls	m2	826			
	Breaking up and removing reinforced concrete including cutting off and removing reinforcement					
6	100mm Thick surface bed (Provisional)	m2	1 475			
	Taking up and removing vinyl floor coverings, carpeting, etc					
7	Vinyl sheet floor covering with welded joints including preparing screed for new vinyl floor covering	m2	1 604			
	Carried Forward			R		

				R		
	Brought Forward					
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc					
8	Corrugated iron roof covering and timber purlins	m2	2 043			
	Taking out and removing ironmongery					
9	Aluminium curtain rails fixed to ceiling	m	111			
	Taking out and removing doors, windows, etc from brickwork					
10	Timber single door 900 x 2100mm high	No	64			
11	Timber single door 1800 x 2100mm high	No	33			
12	Glazed steel window 600 x 1220mm high	No	8			
13	Glazed steel window 1000 x 1220mm high	No	12			
14	Glazed steel window 1200 x 1220mm high	No	5			
15	Glazed steel window 1500 x 1220mm high	No	16			
16	Glazed steel window 2000 x 1220mm high	No	29			
17	Glazed steel window 2990 x 1220mm high	No	2			
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc					
18	Acoustic tile suspended ceilings including suspension grid, hangers, etc	m2	3 159			
	Hacking up/off and removing ceramic tile floor and wall finishes including removing mortar bed or backing and preparing concrete or brick surfaces for new screed, plaster or tile finishes					
19	Ceramic tiles to walls	m2	537			
	Carried Forward			R		

				R		
	Brought Forward					
20	Tile skirting 150mm high	m	173			
	Taking out and removing piping, sanitary fittings, etc including disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)					
21	Galvanised steel piping including fittings and brackets	m	337			
22	Cast iron piping including fittings and brackets	m	296			
23	Copper piping including fittings and brackets	m	377			
24	Vitreous china wash hand basin	No	38			
25	Vitreous china WC pan with cistern	No	13			
26	Vitreous china Urinal	No	2			
27	Stainless steel sink	No	6			
	Taking out and removing glass and mirrors					
28	Mirror 300 x 400mm high from wall	No	38			
	Remove existing Fencing & Gates					
29	Removal of existing Mesh wire fencing 2100mm high including posts	m	361			
30	Removal of existing Double Gate	No	2			
	BUILDING UP OPENINGS					
	Sundries					
31	Cutting toothings and bonding new brickwork to existing	m2	66			
	MAKING GOOD OF FINISHES ETC					
	Carried Forward			R		

	Brought Forward			R	
	Making good screed				
32	Floors in patches	m2	80		
	Making good face brick work				
33	High-pressure jet spraying (or power washing) on existing face brickwork using high-velocity water, typically between 1,000 to 4,000 PSI, to remove stubborn dirt, algae, moss, soot, and atmospheric pollutants with careful handling to avoid damaging the mortar and the surface of the brick	m2	397		
	Carried to Final Summary			R	

Section No. 2
Bill No. 1
Alterations
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO.1					
	EARTHWORKS, ETC. (PROVISIONAL)					
	SUPPLEMENTARY PREAMBLES					
	Nature of ground					
	The founding conditions are described in a soils investigation report in Annexure A (Geotech Investigation) at the back of these bills of quantities titled "Geotechnical Investigation".					
	Carting away of excavated material					
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site					
	Filling					
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material					
	SITE CLEARANCE ETC					
	Site clearance					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	2 410			
2	Stripping average 200mm thick layer of top soil and stockpiling on site	m2	2 410			
	BULK EXCAVATION					
	Carried Forward			R		

	Brought Forward			R		
	Open face excavation in earth over sloping site					
3	Open face excavation	m3	1 493			
	EXCAVATION, FILLING, ETC OTHER THAN BULK					
	Excavate in compacted pickable material not exceeding 2m deep below reduced or filled up ground level and deposit on site where directed.					
4	Excavate for surface trenches.	m3	981			
	Excavate back from the vertical face of excavations to the extent required for the insertion and removal of form work and afterwards return, fill in and ram.					
5	Excavate back from the face of trench excavations exceeding 500mm and not exceeding deep 1500mm and 300 mm between the structure and the sides to be excavated back.	m2	3 286			
	SUNDRIES					
	Sundries					
6	Extra over all excavations in compacted pickable material for excavation in soft rock as described.	m3	49			
7	Extra over all excavations in compacted pickable material for excavation in hard rock as described.	m3	25			
8	Extra over excavations for working space for excavations in soft rock as described.	m2	164			
9	Extra over excavations for working space for excavations in hard rock as described.	m2	82			
	Carried Forward			R		

	Brought Forward			R		
	Extra over all excavations for carting away					
10	Extra over all excavations for carting away excavated material as described to a dumping site to be located by the contractor (Contractor to allow for bulking).	m3	981			
	Risk of collapse of excavations					
11	Allow for the risk of collapse to sides of trenches and holes from ground level not exceeding 1,5 m deep.	m2	3 286			
	Keeping excavations free of water					
12	Allow for keeping excavations free of water and mud by pumping or bailing.		Item			
	FILLING, ETC:					
	Earth filling obtained from the excavations including haulage approximately 100m from perimeter of excavations					
13	Backfill, saturated to optimum moisture content and compacted to 95% modified AASHTO under floors.	m3	362			
	Earth filling supplied by the contractor compacted to 95% Mod AASHTO density					
14	Backfill, saturated to optimum moisture content and compacted to 95% modified AASHTO into trenches.	m3	477			
15	G6 material under solid floors.	m3	746			
16	G7 material under solid floors.	m3	385			
	Coarse river sand filling supplied by the contractor					
17	50mm Thick layer of approved clean sand filling under surface beds.	m3	121			
	SOIL POISONING					
	Carried Forward			R		

	Brought Forward			R	
	Saturate ground under solid floors, etc. with ant poisoning consisting of a 5% solution of Pentachlorophenol in mineral oil, sprayed or poured onto ground with a can with a coarse rose using 4 litres of mixture to each square metre of surface area.				
18	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	2 410		
19	To bottoms and sides of trenches etc.	m2	4 103		
	COMPACTION OF SURFACES				
	Compaction of surfaces				
20	Compaction of ground surface at bottom of trenches including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m2	817		
21	Compaction of ground surface under floors etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m2	2 410		
	DENSITY TESTS				
	Prescribed density tests on filling				
22	"Modified AASHTO Density" test	No	48		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
Bill No. 1
Earthworks
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	BILL NO. 2 **CONCRETE, FORMWORKAND REINFORCEMENT** For preambles see "Model Preambles for Trades" **SUPPLEMENTARY PREAMBLES** Cost of tests Cost of tests 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) Formwork Formwork 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.				
	Carried Forward		R		

	Brought Forward		R		
	Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described 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" Provisional quantities allowing for the formwork described above together with the associated excavation for working space, have been measured in these Bills of Quantities. In the final account, these provisional quantities will be omitted and formwork to be measured will be determined by the initial prescription and/or subsequent authorised instructions of the structural engineer, together with formwork determined by the quantity surveyor as being necessary as defined above For tendering purposes, the structural engineer has indicated that, for design purposes, he will require formwork to all the sides of the following concrete elements below ground level: Column bases, and strip footings The structural engineer reserves the right to vary the above requirements at any time during the construction period at his discretion **UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**				
	Carried Forward		R		

	Brought Forward			R		
	15MPa/19mm concrete					
1	Surface blinding under footings and bases	m3	40			
	REINFORCED CONCRETE					
	30MPa/19mm concrete					
2	Strip footings	m3	204			
3	Surface beds cast in panels on waterproofing	m3	299			
4	Slabs, including beams and inverted beams	m3	25			
5	Columns in foundations (Provisional)	m3	0,2			
6	Columns	m3	0,1			
7	Isolated beams	m3	120			
8	Walls in foundations (Provisional)	m3	5			
9	Walls	m3	19			
	TEST CUBES					
	Test Cubes					
10	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	110			
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a power float					
11	Surface beds, slabs, etc	m2	2 548			
	Carried Forward			R		

	Brought Forward			R	
	Under concrete insulations, etc.:				
12	40mm Expanded polystyrol under concrete flat roof with R-value:1 and less than 3% deformation under 150kpa pressure.	m2	2 410		
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
13	Strip footings (Provisional)	m2	685		
14	Walls in foundations (Provisional)	m2	40		
15	Circular columns in foundations (Provisional)	m2	1		
16	Circular columns total height not exceeding 3,5m above bearing level	m2	5		
17	Isolated beams	m2	1 099		
18	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	143		
	Rough formwork to soffits				
19	Slabs with soffits not exceeding 250mm thick propped up exceeding 500mm thick propped up exceeding 3,5m and not exceeding 3,5m high	m2	116		
20	Slabs propped up exceeding 3,5m and not exceeding 5m high	m2	22		
21	Isolated beams	m2	223		
	Rough formwork to sides				
22	Walls with total height exceeding 1,5m and not exceeding 3,5m above bearing level	m2	71		
	Carried Forward			R	

				R		
	Brought Forward					
23	Walls with total height exceeding 3,5m and not exceeding 5m above bearing level	m2	80			
	MOVEMENT JOINTS ETC					
	Expansion joints with jointex between vertical concrete and brick surfaces					
24	10mm Joints not exceeding 300mm high along edges of surface beds	m	2 091			
	Expansion joints with 10mm sondor jointex between vertical concrete surfaces					
25	10mm Joints not exceeding 300mm high	m	355			
	Saw cut joints					
26	30 x 10mm Saw cut joints in top of concrete	m	166			
	REINFORCEMENT (PROVISIONAL)					
	Mild steel reinforcement to structural concrete work					
27	Varying in Diameter bars	t	20,27			
	High tensile steel reinforcement to structural concrete work					
28	Varying in Diameter bars	t	20,27			
	Fabric reinforcement					
29	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	2 410			
	Carried Forward to Summary of Section No. 3			R		

Item No			Quantity	Rate	Amount	
	BILL NO. 3					
	MASONRY					
	SUPPLEMENTARY PREAMBLES					
	BRICKWORK					
	Sizes in descriptions					
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick					
	Face bricks					
	Bricks shall be ordered timeously to obtain uniformity in size and colour					
	Pointing					
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc					
	SAMPLES					
	Samples of all masonry building units, except those for walls 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					
	FOUNDATIONS (PROVISIONAL)					
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar					
1	Piers	m3	4			
	Carried Forward			R		

				R		
	Brought Forward					
2	Half brick walls	m2	136			
3	One brick walls	m2	872			
	SUPERSTRUCTURE					
	Brickwork of NFP bricks in class II mortar					
4	Piers	m3	16			
5	Half brick walls	m2	1 374			
6	One brick walls	m2	1 805			
7	360mm Hollow walls of two half brick skins including wire ties	m2	545			
	Brickwork reinforcement					
8	75mm Wide reinforcement built in horizontally	m	24 035			
9	150mm Wide reinforcement built in horizontally	m	17 646			
	Concrete pre stressed fabricated lintels					
10	110 x 70mm Lintels in lengths not exceeding 3m	m	390			
11	150 x 70mm Lintels in lengths not exceeding 3m	m	339			
	Brickwork Sundries					
12	Splayed mortar fillet one course high in 50mm cavity	m	170			
	BRICKWORK SUNDRIES					
	Air bricks etc					
13	Breeze Blocks 300 x 300mm comprising of 4No. blocks each size 150 x 150mm	No	112			
	Carried Forward			R		

	Brought Forward			R	
	FACE BRICKWORK				
	14Mpa FBS Terracotta & Buff Satin Facebrick in class ii mortar Pointed With Square Recessed Horizontal And Vertical Joints:				
14	Extra over brickwork for face brickwork in foundations.	m2	349		
15	Extra over brickwork for face brickwork.	m2	1 777		
16	Attic stock *(Supplied, delivered and stored on site and handed over to the client on completion of the project)*	m2	89		
17	Extra over brickwork for face brick work in brick-on-edge header lintel 230mm wide.	m	142		
18	Extra over brickwork for brick-on-edge header course band	m	142		
19	220mm Wide sill set sloping and slightly projecting	m	142		
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS				
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc.:				
20	24 x 120mm Window sills set flat and slightly projecting.	m	142		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
Bill No. 3
Masonry
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO. 4					
	WATERPROOFING					
	SUPPLEMENTARY PREAMBLES					
	Waterproofing					
	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					
	DAMP PROOFING OF WALLS AND FLOORS					
	One layer 250 micron "Gunplas USB Green" polyethylene waterproofing:					
1	On compacted earth under concrete surface beds, lapped 150 mm and sealed at all joints (measured net).	m2	2 410			
	One layer 375 micron embossed "Gunplas Brikgrip" polyethylene damp proof course fixed with approved adhesive:					
2	On walls, stepped up in cavities, under cills, etc.	m2	722			
	WATERPROOFING TO ROOFS, BASEMENTS, ETC					
	One layer Derbigum CG3 and one layer Derbigum SP4mm or equal and approved waterproofing membrane Staggered laid, with 100mm side laps and 300mm end laps, sealed to primed surface to falls and cross falls by 'torch-fusion':					
3	On sloping roofs	m2	138			
4	On walls	m2	72			
	Carried Forward			R		

				R		
	Brought Forward					
5	Additional membrane 150mm girth at internal and external angles	m	143			
	Hydroflex and Crackseal or equal and approved membrane					
6	On walls	m2	72			
7	Flashing strip 300mm girth	m	143			
8	Additional membrane 300mm girth at internal and external angles	m	143			
9	Additional membrane 300mm girth at turn-ups including flashing strip 300mm girth and sealing top edge into groove with mastic	m	143			
	TAL Superflex waterproofing compound onto screeded floors and walls					
10	On concrete floors	m2	14			
11	On brick walls	m2	98			
	PROTECTIVE STONE DRESSING					
	19mm Crushed stone dressing evenly spread with larger stones around outlets					
12	50mm Thick on waterproofing to flat roofs	m2	138			
	PROTECTIVE ROOFING PAINT					
	Two coats WPC bituminous aluminium paint					
13	On waterproofing to roofs	m2	138			
14	On walls	m2	72			
	SUNDRIES					
	Carried Forward			R		

	Brought Forward			R	
	"Secomastic" or equal and approved non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:				
15	In joints between steel frames and walls	m	2 575		
	Silicone sealing, etc.:				
16	Joints not exceeding 10mm between wall tiles and sanitary fittings.	m	145		
	Approved polyurethane sealing compound including backing cord, bond breaker, primer, etc:				
17	10 x 10 mm Polysulphide sealant in expansion joint including scraping out softboard. (Provisional).	m	2 612		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
Bill No. 4
Waterproofing
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO 5					
	ROOF COVERINGS ETC					
	PROFILED METAL SHEETING AND ACCESSORIES					
	Where roof coverings are fixed on top of rigid board insulation to purlins etc descriptions of roof coverings are to include therefore Note that sheeting is also available in corten steel, stainless steel, copper and aluminium					
	0,8mm Corrugated roof sheeting with "Chromadeck" finish to one side, in single lengths fixed to timber purlins or rails and 0,8mm galvanised steel accessories with "Chromadeck" finish, guarantee by an approved installer					
1	Roof covering with pitch not exceeding 25 degrees	m2	4 402			
2	Ridge capping 460mm girth	m	262			
3	Hip capping 320mm girth	m	389			
4	Valley gutter 320mm girth	m	189			
	SHEET METAL FLASHINGS, LININGS, COPINGS, ETC					
	0,8mm Corrugated roof sheeting with "Chromadeck" finish to one side, in single lengths fixed to timber purlins or rails and 0,8mm galvanised steel accessories with "Chromadeck" finish, guarantee by an approved installer					
5	Side wall flashing 300mm girth	m	74			
6	Head wall flashing 300mm girth	m	74			
7	Drip flashing150mm girth	m	893			
	Carried Forward			R		

	Brought Forward			R		
8	Linings to valleys with riveted and soldered joints	m2	95			
	ROOF AND WALL INSULATION					
	Sisalation 420 heavy industrial grade aluminium foil based insulation					
9	Insulation laid taut over purlins (at approximately 200mm centres) and fixed concurrent with roof covering including galvanised steel straining wires	m2	4 402			
	Carried Forward to Summary of Section No. 3			R		

Item No		Quantity	Rate	Amount	
	BILL NO. 6 **CARPENTRY AND JOINERY** **PREAMBLES** 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. The following "Supplementary Preambles" are incorporated in this bill to satisfy the requirements of the project and shall take precedence over the provisions of the said Model Preambles. **SUPPLEMENTARY PREAMBLES** **Fixing:** items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete. Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given separately elsewhere. **Decorative laminate finish:** Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish. **Carried Forward**		R		

	Brought Forward		R		
	Joinery: Descriptions of frames shall be deemed to include frames, transoms, rails, etc. Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts. All doors are to be pre-treated with a sealer as per Swartland specification. Door types indicated refer to the full door specification and detail on the Door Schedule on Architect Drawing attached herewith. **PREFABRICATED TIMBER ROOF TRUSSES** **Prefabricated metal connected timber roof trusses:** All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction. **Descriptions for pre-fabricated timber roof trusses:** Descriptions of trusses shall be deemed to include all necessary splay cut ends, mitres, joining, wrought and shaped ends, connectors, plate connectors, clips, etc. Tendered rates must make provision for the aforesaid as no additional claims in this regard will afterwards be entertained. **Timber:** Timber for trusses to be South African softwood and shall b in accordance with the grades as defined in SABS Specification No. 563 or as defined in SABS Specification No. 1460.				
	Carried Forward		R		

	Brought Forward		R		
	Bolts: Blots shall be in accordance with BS 4190 or SABS 135. **Shear plates, tooth connectors and split rings:** Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759 : 1960 and installed in accordance with the CSIR Publication HOUT 468, "The Design, Manufacturing and Erection of Timber Trusses". **Washers:** Square or round washers of the following dimensions shall be used with all bolts: 1. **Bolts up to 8mm diameter:** Washers shall be minimum 25mm wide of minimum 2.5mm thickness. 2. **Bolts up to 12mm diameter:** Washers shall be a minimum 36mm wide of minimum 4mm thickness. 3. **Bolts up to 20mm diameter:** Washers shall be a minimum 60mm wide of minimum 5mm thickness.				
	Carried Forward		R		

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	Brought Forward		R		
	Metal connector plates: Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel. The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m^2 commercial class hot dipped galvanised as per SABS 934 before stamping. All connector plates shall have been tested by CSIR and be of size capable of transmitting the forces between members of a truss without exceeding the design values published in the CSIR reports. **Truss construction:** Trusses shall be constructed in jigs specially designed to unsure the correct profile, overhangs and cambers. Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint. **Truss design:** All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163, “Design of Tiber Structures” and Code 0160, “Loadings”. **Truss spacing:** The truss centres shall be less than or equal to that as described in this bill for each respective truss.				
	Carried Forward		R		

	Brought Forward		R		
	Truss pitch: The truss pitch shall be as described in this bill for each respective truss type. **Truss loading:** Trusses shall be designed for a live load of 0.50kN/m^2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses". **Workshop drawings, design and erection guarantee certificates:** It will be expected from the contractor to timeously prepare, submit and obtain the necessary approvals from the Architect in respect of the required shop drawings, design and erection guarantee certificates as specified. **Dimensions:** All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences. **Erection:** All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses: as published by the institute for Timber Construction and the CSIR, or the SABS Code of Practice "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer.				
	Carried Forward		R		

	Brought Forward		R		
	Design system: The design system as documented in the bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on the design system. However, contractors are to note that any design system of similar quality maybe used subject to prior written approval of the Architect. Specific specifications for roof trusses Unless specifically otherwise described, the following specifications will apply: 1. The pitch of all trusses to be 10^0 2. All trusses to be single ply, unless otherwise described trusses at maximum 1200mm centres. 3. All trusses to be at maximum 1200mm centres, unless otherwise described. 4. All exposed structural laminated beams shall be of architectural finish, i.e. manufactured of clean grade (absolutely clean) high density timber wrought all round.				
	Carried Forward		R		

	Brought Forward		R		
	Rates: Tendered rates to include for the complete roof construction, including the design of the roof construction, all timber of required grade and type shown on the design, all cutting and waste, cutting to the exact lengths and end angles to manufacture the respective truss type, supply of all connector plates, fabrication of trusses, checking the completed truss for quality, loading, storing under cover and protecting from the weather, hoisting up in position and erection of the roof truss structure, necessary supervision, submission of all shop drawings, design and erection guarantee certificates, etc. as specified. **ROOFS, ETC** **PREFABRICATED ROOF TRUSSES, ETC.** **Sawn softwood:** **Prefabricated timber roof construction complete including purlins, runners, bracing hips, valleys, cleats, purlins, etc.,**				
1	Hipped timber roof construction including 500mm overhang, for building measuring 10,26m long x 7,22m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **Medical Waste Building**	Item			
2	Hipped timber roof construction including 500mm overhang, for building measuring 9,00m long x 4,70m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **General Store Building**	Item			
	Carried Forward		R		

	Brought Forward		R		
3	Hipped timber roof construction including 500mm overhang, for building measuring 8,30m long x 6,50m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **Guard House**	Item			
4	Hipped timber roof construction including 500mm overhang, for building measuring 5,60m long x 4,40m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **Garden Room**	Item			
5	Hipped timber roof construction including 500mm overhang, for building measuring 68,50m long x 58,60m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **Main Building**	Item			
6	Hipped timber roof construction including 500mm overhang, for building measuring 23,00m long x 17,19m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **EMS Building**	Item			
7	Hipped timber roof construction including 500mm overhang, for building measuring 8,75m long x 7,85m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **EMS Building**	Item			
8	Hipped timber roof construction including 500mm overhang, for L-shaped building measuring 53,30m long x 6,50m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **Staff Accommodation Building**	Item			
	Carried Forward		R		

	Brought Forward		R		
9	Hipped timber roof construction including 500mm overhang, for L-shaped building measuring 34,70m long x 6,50m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering - **Staff Accommodation Building**	Item			
	<u>Allow for the preparation and submission of the Detailed Shop Drawings</u>				
10	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication. **Main Building**	Item			
11	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication. **EMS Building**	Item			
12	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication. **Staff Accommodation Building**	Item			
13	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication. **Guard House**	Item			
14	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication. **Garden Room**	Item			
15	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication. **Medical Waste Building**	Item			
	Carried Forward		R		

	Brought Forward		R		
16	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication. **General Store Building**	Item			
	<u>Allow for the preparation and submission of the Design Certificate</u>				
17	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc. **Main Building**	Item			
18	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc. **EMS Building**	Item			
19	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc. **Staff Accommodation Building**	Item			
20	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc. **Medical Waste Building**	Item			
21	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc. **General Store Building**	Item			
22	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc. **Guard House**	Item			
	Carried Forward		R		

	Brought Forward		R		
23	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc. **Garden Room**	Item			
	<u>Allow for the preparation and submission of the Erection Guarantee Certificate</u>				
24	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Architect. **Main Building**	Item			
25	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Architect. **EMS Building**	Item			
26	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Architect. **Staff Accommodation Building**	Item			
27	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Architect. **Medical Waste Building**	Item			
28	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Architect. **General Store Building**	Item			
29	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Architect. **Guard House**	Item			
	Carried Forward		R		

	Brought Forward			R		
30	Erection guarantee certificate after the whole completed roof truss structure have been inspected, all defective work have been taken out and made good, etc. to the full satisfaction of the Architect. **Garden Room**		Item			
	Sawn softwood.:					
31	Wall plate size 38 x 114mm.	m	893			
	EAVES, VERGES, ETC					
	Everite pressed fibre-cement					
32	12 x 125mm Fascias and barge boards including galvanised steel H-profile jointing strips	m	893			
	SKIRTINGS					
	Hardwood meranti					
33	22 x160mm Skirting with 7mm rounded edge and 1mm x 3mm deep *(screws to be countersunk and recessed wo be filled with approved wood filler)*	m				
	DOORS, ETC					
	FRAMED FRAMES ETC					
	Hardwood					
34	75 x 50mm vertical style fitted on one side and hiltid into wall	m				
	Wrot meranti					
35	108 x 45mm Rebated frames with routed edge to frame	m	25			
	DOORS					
	Carried Forward			R		

	Brought Forward			R		
	Wrot meranti Framed Ledge Braced & Battened doors with veneer suitable for painting, hung to timber frames (Timber frames measured elsewhere):					
36	40mm Framed Ledge Braced single door 813 x 2032mm high with rebated meeting rails, each leaf of top rail, stiles and bottom rail and brace filled in with V-jointed one side boarding and weather boarding with drip size 70 x 44mm on other side (*Door 01 - Refer to Door Schedule WG800-DO1 - Rev -)* (*Door 01 - Refer to Door Schedule WG800B-DO1 - Rev -)*	No	6			
37	40mm Framed Ledge Braced double door 1600 x 2032mm high with rebated meeting rails, each leaf of top rail, stiles and bottom rail and brace filled in with V-jointed one side boarding and weather boarding with drip size 70 x 44mm on other side (*Door 06 - Refer to Door Schedule WG100-DO6 - Rev -)*	No	3			
	Masonite covered solid flush panel doors with commercial veneer on both sides and hardwood edge strips to vertical edges suitable for painting hung to steel frames (Steel frames measured elsewhere):					
38	40mm Single door size 813 x 2032mm high (*Door 08 - Refer to Door Schedule WG100-DO8 - Rev -)* (*Door 09 - Refer to Door Schedule WG100-DO9 - Rev -)* (*Door 02 - Refer to Door Schedule WG500-DO2 - Rev -)*	No	35			
39	40mm Double door size 1600 x 2032mm high (*Door 15 - Refer to Door Schedule WG100 - D15 - Rev -)*	No	1			
	Heavy Duty solid flush panel doors with commercial veneer on both sides and hardwood edge strips to vertical edges suitable for painting hung to steel frames (Steel frames measured elsewhere):					
40	40mm Double door size 1010 x 2032mm high (*Door 05 - Refer to Door Schedule WG600-DS 03 - Rev -)*	No	1			
	Carried Forward			R		

				R		
	Brought Forward					
41	40mm Single door size 813 x 2032mm high (*Door D06 - Refer to Door Schedule WG600 - DS - Rev -)*	No	7			
42	Extra for 500 x 250mm opening for metal louvre unit (elsewhere measured)	No	7			
	TDM Doors Alpha standard glass doors with hardwood finger jointed stiles suitable for painting hung to steel frames (Steel frames measured elsewhere):					
43	40mm Single door size 813 x 2032mm high (*Door 07 - Refer to Door Schedule WG600 - DS 04 - Rev -)*	No	4			
	TDM Doors Alpha purpose made solid flush door with hardwood finger jointed stiles suitable for painting hung to steel frames (Steel frames measured elsewhere):					
44	40mm Single door size 813 x 2032mm high (*Door 08 - Refer to Door Schedule WG600 - DS 04 - Rev -)*	No	7			
	Masonite covered Semi-solid flush panel doors with commercial veneer on both sides and hardwood edge strips to vertical edges suitable for painting hung to steel frames (Steel frames measured elsewhere):					
45	40mm Single door size 813 x 2032mm high (*Door 09 - Refer to Door Schedule WG100-DO9 - Rev -)*	No	20			
	Sliding doors including sliding gear, ironmongery, etc					
46	40mm Single Sliding door size 1500 x 2110mm high (*Door 14 - Refer to Door Schedule WG100-D14 - Rev -)*	No	4			
	JOINERY SUNDRIES					
	Windovert or equal and approved Window Blinds					
47	Window blinds for window opening size 300 x 300mm high (W05)	No	9			
48	Window blinds for window opening size 500 x 900mm high (W01)	No	15			
	Carried Forward			R		

				R		
	Brought Forward					
49	Window blinds for window opening size 500 x 1200mm high (W02)	No	16			
50	Window blinds for window opening size 600 x 600mm high (W03)	No	16			
51	Window blinds for window opening size 600 x 2000mm high (W02)	No	4			
52	Window blinds for window opening size 700 x 1200mm high (W05)	No	4			
53	Window blinds for window opening size 700 x 1500mm high (W04)	No	10			
54	Window blinds for window opening size 900 x 1200mm high (W04)	No	12			
55	Window blinds for window opening size 900 x 1500mm high (W03)	No	10			
56	Window blinds for window opening size 1200 x 600mm high (W05)	No	9			
57	Window blinds for window opening size 1200 x 1200mm high (W02)	No	7			
58	Window blinds for window opening size 1200 x 1200mm high (W03)	No	1			
59	Window blinds for window opening size 1200 x 1500mm high (W06)	No	3			
60	Window blinds for window opening size 1200 x 2000mm high (W03)	No	4			
61	Window blinds for window opening size 1500 x 1500mm high (W07)	No	4			
62	Window blinds for window opening size 1500 x 1000mm high (W12)	No	1			
	Carried Forward			R		

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				R		
	Brought Forward					
63	Window blinds for window opening size 1500 x 1200mm high (W04)	No	1			
64	Window blinds for window opening size 1800 x 600mm high (W01)	No	1			
65	Window blinds for window opening size 2000 x 1500mm high (W01)	No	13			
66	Window blinds for window opening size 2200 x 2320mm high (W01)	No	1			
67	Window blinds for window opening size 2400 x 1000mm (W11)	No	1			
68	Window blinds for window opening size 2600 x 1000mm high (W10)	No	1			
69	Window blinds for window opening size 3200 x 1000mm high (W13)	No	1			
70	Window blinds for window opening size 8000 x 1000mm (W09)	No	1			
	Andy wall clock or equal and approved					
71	55cm Black wall clock (code: 81460999)	No	5			
	NOTICE BOARDS, KEYBOARDS, DUCKBOARDS, ETC					
	Buchel Art or equal and approved					
72	Key cabinet size 480 x 350 x 120mm with key tags and index, plugged to wall (Code: B1695)	m	1			
	JOINERY FITTINGS					
	Carried Forward			R		

	Brought Forward			R	
	General The following cupboard fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, glueing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic finish, glass, ironmongery, metalwork, paint or varnish finishes, etc **Note** Should there be any ambiguity between the Bills of Quantities Description and the Architectural drawings attached herewith, the Architectural drawings shall take precedence. **THE FOLLOWING IN EMS KITCHEN FIXED FURNITURE** EMS Kitchen cupboards as per attached specification and drawing (WG600 - J01) at the back of these bills of quantities				
73	Sink cupboard size 1865mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate ad cut for sink hole (elsewhere measured)	No	1		
	Carried Forward			R	

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	Brought Forward			R		
74	Work top size 1865mm long x 750mm wide x 900mm high formed of 32mm Salinga Worktop, framed with 50 x 32 x 3mm thick galvanised steel tubing with 5mm thixk weld on bench base plate fixed with heavy duty M10 x 46mm bolts	No	1			
	THE FOLLOWING IN EMS MEDICAL EQUIPMENT STORE FIXED FURNITURE					
	Medical Equipment cupboards as per attached specification and drawing (WG600 - J02) at the back of these bills of quantities					
75	Floor cupboard size 3490mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal and approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, roller guides for drawers with handles and 2mm brushed stainless steel (satin finish) kick plate.	No	1			
76	Wall cupboard size 3490mm long x 300mm wide x 630mm high with 16mm BisonBord 'V313' with Melamine finish top, sides, bottom, division, shelf, back and single hinged doors, 100mm concealed handles (Gelmar code: BSN 8227 or similar and approved)	No	1			
	THE FOLLOWING IN EMS MEDICAL STORE FIXED FURNITURE					
	Carried Forward			R		

	Brought Forward			R		
	Medical Store cupboards as per attached specification and drawing (WG600 - J02) at the back of these bills of quantities					
77	Floor cupboard size 2335mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal and approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, roller guides for drawers with handles and 2mm brushed stainless steel (satin finish) kick plate.	No	1			
78	Wall cupboard size 2335mm long x 300mm wide x 630mm high with 16mm BisonBord 'V313' with Melamine finish top, sides, bottom, division, shelf, back and single hinged doors, 100mm concealed handles (Gelmar code: BSN 8227 or similar and approved)	No	1			
	THE FOLLOWING IN STAFF ACCOMMODATION FIXED FURNITURE					
	Staff Accommodation cupboards as per attached specification and drawing (WG500 - J01) at the back of these bills of quantities					
79	Built-Inn cupboard size 1200mm long x 600mm wide x 2400mm high formed of white carcas, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal and approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, roller guides for drawers with handles and 2mm brushed stainless steel (satin finish) kick plate.	No	15			
	Carried Forward			R		

	Brought Forward			R		
80	Sink cupboard size 1400mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate ad cut for sink hole (elsewhere measured)	No	14			
81	Wall cupboard size 1400mm long x 300mm wide x 630mm high with 16mm BisonBord 'V313' with Melamine finish top, sides, bottom, division, shelf, back and single hinged doors, 100mm concealed handles (Gelmar code: BSN 8227 or similar and approved)	No	14			
82	L-Shaped Sink cupboard overall size 5480mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate and cut for sink and 2No. Hobs hole (elsewhere measured)	No	1			
	Carried Forward			R		

	Brought Forward			R	
83	L-Shaped Sink cupboard overall size 3675mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate.	No	1		
84	U-shaped Sink cupboard size 6550mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate and cut for sink hole (elsewhere measured)	No	1		
	<u>THE FOLLOWING IN MAIN BUILDING PROCEDURE ROOM FIXED FURNITURE</u>				
	Carried Forward			R	

	Brought Forward			R	
	Procedure room cupboards & shelving as per attached specification and drawing (MBJD 100 - Rev -) at the back of these bills of quantities				
85	Sink cupboard size 4900mm long x 600mm wide x 900mm high formed of white carcas, 32mm post formed 'Formica' worktop, Squareline profile on Bisonboard 'V313' high moisture resistant particleboard, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate ad cut for sink hole (elsewhere measured)	No	1		
86	Shelving size 2320mm long x 450mm wide x 700mm high comprising of 3No. 22mm thick Plywood painted white shelves fixed to 3200mm high powder coated steel wall bands at 900mm centres and 350mm long adjustable steel shelving brackets fixed at 350mm centres, hanged on steel bands	No	1		
	THE FOLLOWING IN MAIN BUILDING MANAGER'S ROOM FIXED FURNITURE				
	Carried Forward			R	

	Brought Forward			R	
	Manager's Room cupboards as per attached specification and drawing (MBJD 300 - Rev 1) at the back of these bills of quantities				
87	Built-Inn cupboard size 910mm long x 600mm wide x 1980mm high formed of white carcas, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal and approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, roller guides for drawers with handles and 2mm brushed stainless steel (satin finish) kick plate.	No	2		
	THE FOLLOWING IN MAIN BUILDING STORE ROOM ROOM FIXED FURNITURE				
	Store room shelving as per attached specification and drawing (MBJD 1400 - Rev -) at the back of these bills of quantities				
88	L-Shaped shelving size 5505mm long x 450mm wide x 1750mm high comprising of 6No. 22mm thick Plywood painted white shelves fixed to 3200mm high powder coated steel wall bands at 900mm centres and 350mm long adjustable steel shelving brackets fixed at 350mm centres, hanged on steel bands	No	3		
	THE FOLLOWING IN MAIN BUILDING PLAY AREA ROOM FIXED FURNITURE				
	Carried Forward			R	

	Brought Forward			R		
	Play Area Room cupboards & Shelving as per attached specification and drawing (MBJD 1500 - Rev -) at the back of these bills of quantities					
89	Floor cupboard size 1000mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal and approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, roller guides for drawers with handles and 2mm brushed stainless steel (satin finish) kick plate.	No	1			
90	Wall cupboard size 1000mm long x 350mm wide x 630mm high with 16mm BisonBord 'V313' with Melamine finish top, sides, bottom, division, shelf, back and single hinged doors, 100mm concealed handles (Gelmar code: BSN 8227 or similar and approved)	No	1			
91	Shelving size 1115mm long x 450mm wide x 1350mm high comprising of 3No. 22mm thick Plywood painted white shelves fixed to 3200mm high powder coated steel wall bands at 900mm centres and 350mm long adjustable steel shelving brackets fixed at 350mm centres, hanged on steel bands	No	1			
	THE FOLLOWING IN MAIN BUILDING CONSULTING ROOM DENTIST FIXED FURNITURE					
	Carried Forward			R		

	Brought Forward			R	
	Consulting Room Dentist cupboards & shelving as per attached specification and drawing (MBJD 1600 - Rev -) at the back of these bills of quantities				
92	Sink cupboard size 4005mm long x 600mm wide x 900mm high formed of white carcas, 32mm post formed 'Formica' worktop, Squareline profile on Bisonboard 'V313' high moisture resistant particleboard, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate ad cut for sink hole (elsewhere measured)	No	1		
	THE FOLLOWING IN GUARD HOUSE FIXED FURNITURE				
93	Floor cupboard size 2335mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal and approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, roller guides for drawers with handles and 2mm brushed stainless steel (satin finish) kick plate.	No	2		
	Carried Forward			R	

	Brought Forward			R	
94	Sink cupboard size 1400mm long x 600mm wide x 900mm high formed of white carcas, Nero Forest colour 30mm thick Venice Natural Quartz Stone top, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal ad approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, 2mm brushed stainless steel (satin finish) kick plate ad cut for sink hole (elsewhere measured)	No	1		
95	Built-Inn cupboard size 825mm long x 600mm wide x 2400mm high formed of white carcas, 16mm Bisonbord 'V313' shelving with melamine finish, 16mm white melamine bottom, 5mm white polywood backing, 16mm Bisonbord 'V313' cupboard door with melamine finish, 2mm matching impact edging, 100mm concealed handles (Gelmar, code: BSN 8227 or equal and approved), 85 x 25mm SAP blocking piece at maximum 400mm centres fixed to wall and skirting forming cupboard base, roller guides for drawers with handles and 2mm brushed stainless steel (satin finish) kick plate.	No	1		
96	Work top size 2280mm long x 380mm wide comprising of 32mm thick post formed Formica on 16mm thick vertical bisonboards fixed to 30 x 30 x 3mm painted galvanised mild steel tube bracket and 2 x 10mm rawl bolted worktop support to brickwork and 3 x countersunk screwed to underside of worktop.	No	1		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
Bill No. 6
Carpentry & Joinery
TENDER BILLS OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount	
	BILL NO. 7 **CEILINGS, PARTITIONS AND ACCESS FLOORING** **SUPPLEMENTARY PREAMBLES** Descriptions Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete 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 Flush plastered suspended ceilings, bulkheads, etc Descriptions of ceilings, bulkheads, etc are deemed to include for the total design, fabrication, erection, etc of suspension systems, grids, sub-grids, hangers, framing, bracing, etc and for gypsum plasterboard as described fixed with Rhino Drywall screws to tee section Screw-Up suspension system or Drywall steel tracks, studs, rails, braces, etc. All joints in boards are to be covered with 50mm wide self adhesive Fibatape and whole finished with Rhinolite gypsum plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer, including galvanised pressed metal beads, arrises to the plaster, etc					
	Carried Forward			R		

	Brought Forward			R		
	General Description of ceilings, bulkheads, etc generally are deemed to include for all necessary bridging, hangers, bracing, etc over and around services, pipes, air-conditioning ducting, etc occurring within the ceiling and/or bulkhead voids and no claims for extras will be entertained for non co-ordination with other sub-contractors involved in this regard All work to be executed in strict accordance with the manufacturer's recommendations and carried out by specialist ceiling and bulkhead installers **CEILINGS ETC** Isotherm or equal and approved insulation					
1	100mm Insulation closely fitted and laid on top of brandering between roof timbers etc	m2	876			
	NAILED UP CEILINGS 4mm Cladit ceiling boards					
2	Ceilings including 38 x 38mm SAP brandering at 400mm centres	m2	104			
	9,5mm Rhinoboard with tapered joints with tapered and rhinolite skimmed joints					
3	Ceilings including 38 x 38mm SAP brandering at 400mm centres	m2	773			
	40mm Laminated polyisocyanurate core board with a minimum core density of 34kg/m³, minimum thickness of 60mm, faced with Matt White mineral coated fibre glass tissue, laminated n both sides, fixed under purlins in between roof trusses and in conjunction with roof covering.					
4	Ceilings fixed below roof trusses	m2	141			
	Carried Forward			R		

	Brought Forward			R		
	Shadow line cornices					
5	Pelican shadowline plaster trims PS2, PS3 & PS4 or equal and approved with white epoxy coated aluminium with 5mm x 25mm anchors at 450mm centres	m	1 590			
	SUSPENDED CEILINGS					
	Proprietary suspended ceilings					
	Note:					
	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 in setting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)					
	Jumbo Tapered edge 6,4mm plasterboard flush plastered ceiling on main tees at 1200mm centres and 32T at 1200mm centres at 400mm centres with capping of galvnised steel, Gypsum board screwed to underside of ceiling grid with drywall screws at 150mm centres and joints to be taped ad plastered and main tees suspended by means of 19 x 0,5mm galvanised mild steel strap (or 2,5 wires) hangers at 1200mm centres.					
6	Ceilings suspended not exceeding 1m below timber roof trusses	m2	134			
	Carried Forward			R		

	Brought Forward			R		
	Jumbo Tapered edge 12mm moisture-resistant plasterboard flush plastered ceiling on main tees at 1200mm centres and 32T at 1200mm centres at 400mm centres with capping of galvnised steel, Gypsum board screwed to underside of ceiling grid with drywall screws at 150mm centres and joints to be taped ad plastered and main tees suspended by means of 19 x 0,5mm galvanised mild steel strap (or 2,5 wires) hangers at 1200mm centres.					
7	Ceilings suspended not exceeding 1m below timber roof trusses	m2	6			
	600 x 1200 x 6mm Thick Pelican Econocal ceiling tiles with a white vinyl face, an aluminium foil backing and encapsulated edges, laid on Pelican Econogrid pre-painted white exposed tee grid system including safety punch outs, main tees suspended by means of 19 x 0,5mm galvanised mild steel strap (or 2,5 wires) hangers at 1200mm centres					
8	Ceilings suspended not exceeding 1m below timber roof trusses	m2	320			
9	Attic stock *(Supplied, delivered and stored on site and handed over to the client on completion of the project)*	m2	16			
	600 x 1200 x 6mm Thick Pelican Econotile ceiling tiles with a white vinyl face, an aluminium foil backing and encapsulated edges, laid on Pelican Econogrid pre-painted white exposed tee grid system including safety punch outs, main tees suspended by means of 19 x 0,5mm galvanised mild steel strap (or 2,5 wires) hangers at 1200mm centres					
10	Ceilings suspended not exceeding 1m below timber roof trusses	m2	1 381			
11	Attic stock *(Supplied, delivered and stored on site and handed over to the client on completion of the project)*	m2	69			
	Carried Forward			R		

	Brought Forward			R		
	Shadow line cornices					
12	Pelican shadowline plaster trims PS2, PS3 & PS4 or equal and approved with white epoxy coated aluminium with 5mm x 25mm anchors at 450mm centres	m	1 444			
	Carried Forward to Summary of Section No. 3			R		

Item No			Quantity	Rate	Amount	
	BILL NO. 8					
	FLOOR COVERINGS, PLASTIC LININGS, ETC.					
	FLOOR COVERINGS					
	2.00mm thick x 2.0m wide Polyflor 'Forest FX Pur - Timber Look' or equal and approved Non-Directional homogeneous fully flexible vinyl sheeting with joints welded with rod in matching colour.					
	The flooring should comply with the following:					
	Anti-bacterial & anti-viral activity ISO 22196 & ISO 21702 with TVOC <10ug/m3 after 28 days with Evercare surface treatment and binder content type 1 laid in ITE V30 acrylic adhesive using a A2 notch trowel on a previously prepared Class 1 sub-floor with 50mm below surfaced drilled moisture content reading of 75% RH in accordance with SANS 10070, including all cutting and waste, rolled in both directions with an articulated 68kg three-sectional roller immediately after it has been laid into the adhesive, joints must be butted, grooved and heat welded using the manufacturer's matching welding rod for a perfect finish all installed in accordance to manufacturers specifications.					
	On completion the Vinyl should undertake a deep clean and Buff according to the manufacturers maintenance programme					
1	To floors	m2	1 879			
2	Turn-ups over coves and up against walls not exceeding 200mm girth	m	1 485			
	Carried Forward			R		

	Brought Forward			R	
	2.00mm thick x 2.0m wide Polyflor 'Plysafe Ultima' or equal and approved heavy duty safety flooring fully flexible vinyl sheeting with joints welded with rod in matching colour. The flooring should comply with the following: Anti-bacterial & anti-viral activity ISO 22196 & ISO 21702 with TVOC <10ug/m3 after 28 days with Evercare surface treatment and binder content type 1 laid in ITE V30 acrylic adhesive using a A2 notch trowel on a previously prepared Class 1 sub-floor with 50mm below surfaced drilled moisture content reading of 75% RH in accordance with SANS 10070, including all cutting and waste, rolled in both directions with an articulated 68kg three-sectional roller immediately after it has been laid into the adhesive, joints must be butted, grooved and heat welded using the manufacturer's matching welding rod for a perfect finish all installed in accordance to manufacturers specifications. On completion the Vinyl should undertake a deep clean and Buff according to the manufacturers maintenance programme				
3	To floors	m2	202		
4	Turn-ups over coves and up against walls not exceeding 200mm girth	m	355		
	SKIRTINGS, NOSINGS, ETC Kirk Marketing or equal and approved				
5	Aluminium capping strip fixed in flexible polyurethane adhesive	m	17		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
Bill No. 8
Floor Coverings, Plastic Linings, etc.
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO. 9					
	IRONMONGERY					
	SUPPLEMENTARY PREAMBLES					
	Finishes to ironmongery					
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:					
	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					
	HINGES, BOLTS, ETC					
	Union or equal and approved					
1	Surface mounted aluminium single or multi track indicator bolt witl anodised silver finish (code: AL8098)	No	20			
2	Aluminium helping hand WC indicator bolt (code: 37651AS) with anodised silver finish with 5305-05SS Euro profile cylinder escutcheon.	No	6			
3	2 Point locking double panic bolt size 808 - 2200 with Pullman latch with black brackets and red horizontal push bar for double doors	No	5			
	LOCKS					
	Carried Forward			R		

				R		
	Brought Forward					
	Union or equal and approved					
4	3 Lever upright lock (2295-76SS) standard with stainless steel foresnd	No	4			
5	Euro profile double cylinder 2 x 18SCMK 66mm long, master keyed, with rebate conversion set	No	6			
6	Euro profile cylinder upright lock case (code: L-2209-78SS)	No	6			
7	Euro profile double cylinder 2 x 18SXMKD 66mm long, master keyed	No	98			
8	Euro lock case L-22315-76SS (Standard) with stainless steel forend	No	45			
9	Rebate conversion set (code: 2799SC)	No	102			
	HANDLES					
	Premium or equal and approved					
10	M4tech steel lever handle	Pairs	14,0			
	Union or equal and approved					
11	Stainless steel sandpiper lever handle (code: 6104-06SS)	Pairs	6,0			
12	Zinx Gower handle on 152 x 41mm rectangular backplate 682-24CH with chrome finish	No	4			
	Waterbok or equal and approved					
13	150 x 50mm Oval backplate handle with anodised silver finish (AL6W20-05AS)	Pairs	98,0			
	DOOR CLOSERS					
	Carried Forward			R		

Section No. 3
Bill No. 9
Ironmongery
TENDER BILLS OF QUANTITIES

				R		
	Brought Forward					
	Union or equal and approved					
14	Silver rack and pinion hydraulic door closer 781	No	101			
15	Overhead rack and pinion hydraulic fixed power 732P EN3 Silver parallel arm overhead door closer	No	2			
	CATCHES, CABIN HOOKS, ETC					
	Union or equal and approved					
16	Rubber tipped hat and coat hook (code: AL8722AS)	No	20			
	BATHROOM FITTINGS					
	Franke or equal ad approved					
17	Satin stainless steel soap dispense size 304 x 100 x 134mm deep, plugged and screwed to wall with stainless steel screws, with replaceable and refillable 1 litre container, cylinder lock with standard key (code: STRX 618)	No	70			
18	Surface mounted stainless steel Paper Towel dispenser (Code: FW-STRX600)	No	63			
19	Chrome NIckel steel 18L Waste Bin size 275mm wide x 460mm high x 177mm deep (code: RODX605S)	No	109			
20	Hygene waste bin size 205mm wide x 305mm high x 134mm deep (Code: STRX611)	No	59			
21	Stainless steel toilet roll holder with a spindle rod inside plugged and screwed to the wall with stainless steel screws (code: SR-HD-2ROLL-DISP)	No	51			
22	Wall mounted satin finish stainless steel sensor operated hand dryer with Automatic cut-off, Warm air output of 28m/s at 65°C, Adjustable sensitivity from 100 to 300mm and Vandal resistant lock (Code: HF2400HD).	No	11			
	Carried Forward			R		

				R		
	Brought Forward					
23	Matt Stainless steel lockable toilet paper dispenser size 304 x 156 x 140,7mm deep (Code: STRX 672)	No	45			
24	Satin stainless steel recessed double toilet roll holder (Code: STRX 672E)	No	6			
25	60 Litre satin stainless steel waste bin size 480 wide x 620mm high x 210mm deep with rounded edges (Code: ODX607)	No	2			
26	18 Litre satin stainless steel waste bin size 275mm wide x 460mm high x 177mm deep with rounded edges (Code: RODX605S)	No	1			
27	Single towel rail size 600mm	No	10			
28	Stainless steel Grab rail (Side - code: DL2)	No	28			
29	Stainless steel Grab rail (Rear - code: SR2A	No	28			
	Sundries					
30	Circular galvanised wall mounted refuse bag holder size 445mm Diameter x 120mm high with black rubber lid, Bungee cord bag clamp and wall mounting point	No	63			
	SUNDRIES					
	Union or equal and approved					
31	Door stop with brushed stainless steel finish (code: 8700SS)	No	20			
32	Single or multi-track door stop with anodised silver finish (AL8730AS)	No	55			
	Carried Forward			R		

	Brought Forward			R	
	Bumper Rails				
33	"Max", Or Equal and approved Bumper Rails formed 32mm Medium density fibreboard, 200mm wide with two 32mm post-formed edges, using heat activated cold glue, covered completely with 0.8mm "Stone Artica 321FK Funder Max", or of equal approved standard, high pressure laminate fixed with water resistant cold glue on flat sides, complete with machined joints at back, Bumper rail screwed to 45 x 90mm powder coated steel U-Shaped brackets with euro screws, the brackets screwed to brickwork with and including 6mm screw bolts.	m	340		
	PELMETS AND CURTAIN TRACKS				
	Endurocide or equal and approved:				
34	Antimicrobial Plus hospital cubicle curtain track 2000mm below soffit including 12 gliders per metre, hangers, brackets, stopped ends, etc (plugged)	m	63		
35	Extra for end plugged	No	18		
36	Extra for bend	No	15		
	SHELVES ETC				
	Franke or equal and approved Shelving				
37	Stainless steel Perforated Z-Series adjustable shelving size 900 x 300mm wide with one piece shelf and integrated bracket with a 25mm apron to from and sides with 30mm turn up at back and safety edge on corners (Code: 262 00 35).	No	8		
38	Powder coated (Imperial) bolted angle shelving size 2520mm long x 610mm wide comprising of sturdy slotted angle uprights, steel shelves, bracing and fixings, dividers, shelf front, solid or mesh side and back panels, kick panels and base feet	No	36		
	Carried Forward			R	

				R		
	Brought Forward					
	STEEL LOCKERS					
	Toolroom services or equal and approved					
39	Four Compartment lockers size 300 x 4500 x 1800mm high	No	2			
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC					
	Vitrex or equal and approved					
40	Model 2300 pinning board with Belgotex carpet finish size 1000 x 1000mm (code: 2314) plugged	No	93			
41	Model 2200 whiteboard size 1000 x 1000mm (code: 2214) plugged	No	93			
	Carried Forward to Summary of Section No. 3			R		

Item No		Quantity	Rate	Amount	
	BILL NO 10				
	METALWORK				
	SUPPLEMENTARY PREAMBLES				
	Descriptions				
	Descriptions of bolts shall be deemed to include nuts and washers				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
	STEEL HANDRAILS, BALUSTRADING, ETC				
	The following in welded galvanised steel balustrading as described:				
1	Balustrading to walkway of 75 x 25mm steel section continuous top rail, 75 x 25mm steel section continuous bottom rail, 25 x 25mm x 800mm high steel section intermediate balusters at 90mm centres between sub-framing of 50 x 25mm sub-framing and 75 x 25mm upright steel section posts at approximately 1200mm centres each with 100 x 100mm flat section base plate bolted to concrete (bolts elsewhere) m	19			
2	M20 Grade 8.8 bolts No	77			
	SUNDRY STEELWORK				
	Carried Forward		R		

				R		
	Brought Forward					
	Corner protectors					
3	75 x 75mm x 1,2mm Thick x 1,2 meter high Stainless Steel Corner Protectors hitlid at max 300mm centres with approved glue applied on inside of corner protector before fixing to wall.	No	29			
	GALVANIZED PRESSED STEEL DOOR FRAMES					
	1.2mm Rebated frames suitable for half brick walls					
4	Frame for door 813 x 2032mm high	No	35			
5	Frame for door 1010 x 2032mm high	No	1			
	1.2mm Rebated frames suitable for one brick walls					
6	Frame for door 813 x 2032mm high	No	25			
7	Frame for door 1600 x 2032mm high	No	3			
	WELDED SCREENS, GATES, ETC					
	Screens and gates to					
8	150 x 60 x 12mm mild steel base plate holed for bolts and welded on	No	101			
9	12mm M8 expansion bolt	No	416			
10	Single gate 730 x 2007mm high of 60 x60 x 2mm mild steel square tube outer frame and 19mm diameter steel rods inner frame welded to outer frame at 104mm centres, including 60 c 6mm horizontal supports with 19mm diameter holes for vertical rods fitted with a pair of suitable hinges welded to post and lockable sliding bolt with keep in gate post (D01) (drawing No. WG100-G01)	No	5			
	Carried Forward			R		

	Brought Forward			R		
11	Single gate 1200 x 2269mm high of 45 x 45 x 3mm hollow section frame filled in with welded mesh welded to frame and fitted with a pair of suitable hinges welded to post and hasp and staple welded on (G01) (Drawing No. WG 600 - GS 02)	No	1			
12	Single gate 1160 x 2269mm high of 45 x 45 x 3mm hollow section frame filled in with welded mesh welded to frame and fitted with a pair of suitable hinges welded to post and hasp and staple welded on (G03) (Drawing No. WG 600 - GS 03)	No	1			
13	Double gate 2655 x 2269mm high of 45 x 45 x 3mm hollow section frame filled in with welded mesh welded to frame and fitted with a pair of suitable hinges welded to post and hasp and staple welded on (G02) (Drawing No. WG 600 - GS 02)	No	1			
14	Double gate 1100 x 2269mm high of 45 x 45 x 3mm hollow section frame filled in with welded mesh welded to frame and fitted with a pair of suitable hinges welded to post and hasp and staple welded on (GC02)	No	17			
15	Double gate 1540 x 1828mm high of 45 x 45 x 3mm hollow section frame filled in with welded mesh welded to frame and fitted with a pair of suitable hinges welded to post and hasp and staple welded on including Clearvue Fencing Side Panel (D02) (Drawing No. WG 800 - D02)	No	2			
16	Double gate 3940 x 2269mm high of 45 x 45 x 3mm hollow section frame filled in with welded mesh welded to frame and fitted with a pair of suitable hinges welded to post and hasp and staple welded on (G04) (Drawing No. WG 600 - GS 04)	No	1			
	SUNDRY STAINLESS STEELWORK					
	Silverline stainless steel benches with 2mm steel cross beam, arms, legs, edges, brushed stainless steel seats:					
17	3 Seater bench	No	9			
	Carried Forward			R		

				R		
	Brought Forward					
18	4 Seater bench	No	21			
19	5 Seater bench	No	26			
	Gardena or equal and approved Broom and Mop Hook					
20	Combisystem storage set size 40mm wide, comprising of glass-fibre reinforced plastic holders, galvanised steel hangers with rubber sleeves.	No	1			
	STEEL STRONGROOM DOORS, VENTILATORS, ETC					
	Bitcon or equal and approved strongroom doors etc suitable for 230mm walls, fixed to brickwork or concrete					
21	Record room door and frame 900 x 2078mm high overall	No	1			
22	Single ended strongroom ventilator	No	1			
	POWDER COATED ALUMINIUM LOUVRE UNITS					
	Louvre panels screwed into timber doors					
23	Panel 500 x 250mm high	No	7			
	ALUMINIUM WINDOWS, DOORS, ETC					
	User note:					
	A detail specification is to be inserted as necessary - The following is an updated standard specification based on AAAMSA Buyers Guide 2004					
	SPECIFICATION					
	Carried Forward			R		

	Brought Forward		R		
	Scope of work Provide all labour, materials and equipment necessary for the design, supply and fixing of the works described herein, in conformity with the drawings referred to, this specification and AAAMSA specification Aluminium work The architectural aluminium work in windows and doors must carry the Certification Seal of the Association of Architectural Aluminium Manufacturers of South Africa and no items which are not so certified will be accepted on site Tender drawings and samples The tenderer shall submit **together with his tender** sufficient detailed drawings and samples to illustrate the type of sections he intends to use for all elements of the work, including jamb, sill, head, coupling, beading, etc, waterproofing, ironmongery, etc and fixing method details Aluminium sections Extruded aluminium sections shall be fabricated from alloy 6063 or 6061 in temper T5 or T6 all in accordance with the latest edition of BS EN 755 - "Aluminium and its alloys - extruded rod / bar, tube and profiles" Ancillary members such as sills, flashings, infill panels and the like which may be formed from flat sheet material shall be fabricated from aluminium alloy 1200 or 3004 or 5251 of appropriate temper all in accordance with the latest edition of BS EN 573 - "Aluminium and Aluminium Alloys"				
	Carried Forward		R		

	Brought Forward		R		
	The extrusions must be free from copper, hammer marks or other defects. Under no circumstances is mild steel, brass or any other metal containing copper to be used where it will come into direct contact with the aluminium After manufacture the aluminium sections are to be cleaned in an approved manner to ensure uniform appearance and it is to be protected during transport to site and during installation with a strippable approved plastic tape or wrapping as required, which is only to be removed once the "rough and wet" trades have finished with their work All frames are to be true and square. Joints are to be mechanically joined or welded in accordance with the best practice. Assembly screws and bolts are to be stainless steel and fixing screws are to be cadmium plated The contractor shall provide all the necessary sub-frames, structural supports, lugs, brackets and cleats necessary to ensure the stable fixing of window and door sections to surrounding structures <u>Anodising</u> All architectural anodising shall be in strict accordance with SANS 999 of colour as described with a nominal thickness of between 60 - 80 microns The specific purchasing conditions contained in SANS 999 shall be deemed to be incorporated in this specification <u>Powder coating</u> All architectural powder coating shall be in strict accordance with SANS 1796 and the powder applied in strict accordance with SANS 1578 of colour as described with a nominal thickness of between 60 - 80 microns				
	Carried Forward		R		

	Brought Forward		R		
	The specific purchasing conditions contained in SANS 1796 shall be deemed to be incorporated in this specification The powder manufacturer shall issue a powder guarantee of a minimum of 15 years. The specific conditions contained in this guarantee shall form part of the powder coating process and may only be applied by an approved powder applicator All aluminium shall be pre-treated in accordance with SABS 1796 so as to ensure excellent adherence properties <u>Coil coating (painted aluminium sheet)</u> All coil coating of architectural aluminium flat sheet products shall be in strict accordance with : ASTM D2247 in respect of Humidity Resistance ASTM G53 and ASTM D3361 in respect of Accelerated Weathering ASTM B117 in respect of Acid Salt Spray ASTM D4145 in respect of Formability ASTM D3363 in respect of Pencil Hardness ASTM D523 in respect of Specular Gloss ASTM D2794 in respect of Reverse Impact All coil coated architectural aluminium flat products are to be provided with a manufacturer's extended guarantee in respect of substrate and painted surface (20 years subject to manufacturer's performance guarantee conditions)				
	Carried Forward		R		

	Brought Forward		R		
	Written certificates Tenderers are advised that written certificates of conformance will be required in terms of all the references as referred to above Shop drawings, details and calculations The successful tenderer will be required to prepare full drawings incorporating plans, elevations, sections, details, etc for approval by the architects and/or structural engineers, prior to putting any work in hand Copies of the approved drawings shall be supplied to the architects and any other subcontractor whose work is affected. Notwithstanding any approval of these details, the successful contractor shall remain responsible for the design and for ensuring that the dimensions, details and workmanship results in the correct performance and assembly of the work. Fixing Windows and doors must be fixed by the manufacturer into pre-formed openings including all necessary brackets, anchors, other fastening devices, spacers, timber grounds, etc and must be perfectly plumb and be strutted and braced as necessary to prevent distortion Responsibility The successful tenderer will be responsible for the structural, general detail and design of the works described, which is to be in accordance with the overall architectural design parameters as outlined on the drawings. The structural design must in all respects comply with the tolerances and design requirements set out in this specification				
	Carried Forward		R		

	Brought Forward		R		
	It will be the contractor's responsibility to comply in all respects with Local Authority and Central Government regulations and to obtain all the necessary approvals as required from the respective Authorities. Notarized certificates of compliance must be provided with shop drawings for the architect's approval as requested <u>Warranty and indemnity</u> The tenderer must undertake to provide when called upon an acceptable warranty to guarantee the following:-That all components are to be guaranteed for 10 years after installation. That the standards of workmanship, materials and tolerances are in accordance with this specification and with the relevant SABS and/or BS Standards where applicable. That the works described has been designed to comply with the requirements set out herein. That the use of all materials included in the total construction shall take due cognisance of the manufacturer's warranty, recommendation and specification for their respective uses and shall where applicable be in accordance with the relevant SABS and/or BS Standards. <u>Performance standards</u> Thermal movement (where applicable) The contractor shall provide allowances for free and noiseless vertical and horizontal thermal movement due to the contraction and expansion of component parts, for a temperature range of not less than -10°C to +35°C. Buckling, opening of joints, glass breakage, undue stress on fasteners, failure of sealants or any other detrimental effects due to the thermal movement of component parts shall not be permitted				
	Carried Forward		R		

	Brought Forward		R		
	Deflection The deflection of any framing member in a direction normal to the plane of the wall when subjected to its full design load, shall not exceed 1/175 of its clear span or 20mm, whichever is less.The vertical deflection of any horizontal member supporting glass, when carrying its full design dead load, shall not exceed 1/300 of the clear span of the member or 8mm, whichever is less.The deflection of any member in a direction parallel to the plane of the wall when carrying its full design load, shall not exceed 3mm Fittings Glazing beads, gaskets and glazing compounds shall be of materials that are compatible with the aluminium finishes, the glass and other glazing materials. Putty glazing is not permitted Hardware, bearing devices and fittings in general must be of materials resistant to atmospheric corrosion for all inland installations, but when installed in highly corrosive environments, such as coastal or close proximity to the sea, all said fittings must be made from non-corrosive materials and shall be of a design so as to be accessible for adjustment, repair and replacement after the windows etc have been installed Fastenings shall be of material which is compatible with aluminium and aluminium finishes Primary anchorage Anchorage to the structure shall be done by approved methods and in strict accordance with the approved shop drawings Embedded concrete inserts supplied by the contractor shall be used as required for the anchorage. The timely and adequate supply of cast-in items is entirely the responsibility of the contractor				
	Carried Forward		R		

	Brought Forward		R		
	Tolerances The contractor is to take into account the building tolerances prior to manufacture commencing and no responsibility will be accepted by the architects in respect of lack of fit of any of the window and door assemblies <u>Pointing</u> All external windows and doors shall be waterproofed with an approved wax impregnated sealing strip between the aluminium frame and the structure, and in addition shall be pointed all round on both sides with an approved two-part polysulphide liquid polymer sealing compound <u>Ironmongery</u> All ironmongery is to be best quality of the respective kinds Ironmongery not described but necessary for the works is to be included in the tender with sufficient supportive detail and references for approval by the architect together with the tender <u>Glazing</u> Windows and doors are to be glazed with glass as described herein. Glazing may be either factory or site glazed and must be clean and free from defects on completion of glazing Glazing shall be executed strictly in conformance with glass manufacturer's recommendations and all in accordance with the National Regulations Part N, SANS 10137, SANS 10400 and SANS 1263 All safety glazing materials (individual panes) shall be permanently marked. Such marking to be visible after installation (glazing)				
	Carried Forward		R		

	Brought Forward		R		
	The successful tenderer shall submit the AAAMSA Glass & Glazing Certificate confirming that glazing has been installed in accordance with SANS 10137 ensuring that Safety Glazing Materials have been installed and individually marked in the mandatory areas A warranty is to be provided that the manufacturer of the laminated safety glass and / or the hermetically sealed glazing units warrants the product against delamination and colour degradation for a period of not less than 5 (five) years In the case of structural glazing, written proof is to be provided that all stages of fabrication and installation have been executed with disciplined quality assurance in accordance with the relevant part of SABS ISO9000 Written confirmation of compatibility of structural sealant with extrusion surface, glazing tape and glass is to be supplied by the structural sealant manufacturer together with the regular relevant test reports regarding the adhesion of the sealant to the aluminium frame in accordance with ASTM/C 794-80 (Standard Test for Adhesion-in-Peel of Elastomeric Joint Sealants) <u>Servicing</u> When necessary, all protection plastic tape or wrapping shall be removed and the windows and doors shall be thoroughly cleaned and tested, serviced with all necessary adjustments and / or repairs carried out before handing over the Works				
	Carried Forward		R		

	Brought Forward			R	
	Tender rates The tender rates are to include for the design, manufacture, powder coating, labour and material for the windows, doors, etc including all accessories, necessary sub-frames, structural supports, brackets, etc ironmongery, protective tape/wrapping, glass, sandblasting, sealing between units and between units and structures, packing, cartage, delivery to site and erection including all shop drawings, samples, etc items, work, etc not specifically stated here or shown on the drawings but generally required to complete the works and cost implications of the Preliminaries applicable to the principal agreement The tenderer shall accept full responsibility for the accuracy of his measurement of quantities etc of all the components and the completed works shall therefore not be subject to remeasurement. Only authorised variations from this bill of quantities will be subject to adjustment References The references given in the descriptions are to the respective types of windows, doors, etc on the architect's schedule drawings included at the back of this bill of quantities				
	WINDOWS AND DOORS				
	Powder coated aluminium windows in Matt Dark Umber Grey glazed with 4mm Frosted glass and plugged to brickwork or concrete				
24	Window 300 x 300mm high with 1No. Top hung pane and 1No. fixed pane (W05) (drawing No WG600-WS 03)	No	9		
25	Window 500 x 900mm high with 1No. Top hung pane and 1No. fixed pane (W01) (drawing No WG500-W01)	No	15		
	Carried Forward			R	

				R		
	Brought Forward					
26	Window 500 x 1200mm high with 1No. Top hung pane and 1No. fixed pane (W02) (drawing No WG500-W02)	No	16			
27	Window 600 x 600mm high with 1No. Top hung panes (W03) (drawing No WG100-W03) & (W01) (Drawing WG800-W01)	No	16			
28	Window 600 x 2000mm high with 2No. Top hung panes and 1No. fixed pane (W02) (drawing No WG600-WS 01)	No	4			
29	Window 700 x 1200mm high with 1No. Top hung panes and 1No. fixed pane (W05) (drawing No WG500-W05)	No	4			
30	Window 700 x 1500mm high with 2No. Top hung panes and 1No. fixed pane (W04) (drawing No WG500-W04)	No	10			
31	Window 900 x 1200mm high with 2No. Top hung panes (W04) (drawing No WG100-W04)	No	12			
32	Window 900 x 1500mm high with 2No. Top hung panes and 1No. fixed pane (W03) (drawing No WG500-W03)	No	10			
33	Window 1200 x 600mm high with 2No. Top hung panes (W05) (drawing No WG100-W05) & (W04) (drawing No.WG600-WS 02)	No	9			
34	Window 1200 x 1200mm high with 2No. Top hung panes (W02) (drawing No WG100-W02)	No	7			
35	Window 1200 x 1200mm high with 4No. Top hung panes (W03) (drawing No WG800-W03)	No	1			
36	Window 1200 x 1500mm high with 2No. Top hung panes and 1No. Fixed panes (W06) (drawing No WG100-W06)	No	3			
37	Window 1200 x 2000mm high with 4No. Top hung panes and 2No. Fixed panes (W03) (drawing No WG600-WS 02)	No	4			
	Carried Forward			R		

	Brought Forward			R		
38	Window 1500 x 1500mm high with 2No. Top hung panes and 2No. Fixed panes (W07) (drawing No WG100-W07)	No	4			
39	Window 1500 x 1000mm high with 1No. Fixed pane (W12) (drawing No WG100-W12)	No	1			
40	Window 1500 x 1200mm high with 6No. Top Hung panes (W04) (drawing No WG800-W04)	No	1			
41	Window 1800 x 600mm high with 3No. Top Hung panes (W01) (drawing No WG800B-W01)	No	1			
42	Window 2000 x 1500mm high with 2No. Top hung panes and 3No. Fixed panes (W01) (drawing No WG100-W01)	No	13			
43	Window 2200 x 2320mm high with 4No. Top hung panes and 4No. Fixed panes (W01) (drawing No WG600-WS 01)	No	1			
44	Window 2400 x 1000mm high with 2No. Fixed panes (W11) (drawing No WG100-W11)	No	1			
45	Window 2600 x 1000mm high with 2No. Fixed panes (W10) (drawing No WG100-W10)	No	1			
46	Window 3200 x 1000mm high with 3No. Fixed panes (W13) (drawing No WG100-W13)	No	1			
47	Window 8000 x 1000mm high with 6No. Fixed panes (W09) (drawing No WG100-W09)	No	1			
	Powder coated aluminium windows in Matt Dark Umber Grey glazed with 6mm laminated glass and plugged to brickwork or concrete					
48	Shop Front 2936 x 2465mm high with 12No. Fixed panes (W08) (drawing No WG100-W08)	No	2			
	Carried Forward			R		

				R		
	Brought Forward					
	Powder coated aluminium doors in Matt Dark Umber Grey glazed with 6mm Toughened Laminated Clear glass and plugged to brickwork or concrete					
49	Single door 900 x 2050mm high overall with 2No. fixed panes (D12) (drawing No WG100-D12)	No	34			
50	Single door 900 x 2100mm high overall with 2No. fixed panes (D05) (drawing No WG100-D05)	No	2			
51	Single door 900 x 2100mm high overall with 2No. fixed panes and fixed light size 900 x 300mm (D01) (drawing No WG500-D01)	No	28			
52	Double door 1200 x 2032mm high overall with 4No. fixed panes (D22) (drawing No WG100-D22)	No	1			
53	Double door 1354 x 2110mm high overall with 4No. fixed panes (D13) (drawing No WG100-D13)	No	16			
54	Double door 1600 x 2500m high overall with Fixed light, with Human sensed automatic door opener, comprising 4No. fixed panes (D03) (drawing No WG100-D03)	No	2			
55	Double door 1608 x 2050mm high overall with 4No. fixed panes (D11) (drawing No WG100-D11)	No	1			
56	Double door 1786 x 2032mm high overall with 4No. fixed panes (D16) (drawing No WG100-D16)	No	3			
57	Double door 1800 x 2032mm high overall with 4No. fixed panes (D19) (drawing No WG100-D19)	No	1			
58	Double door 2600 x 2500m high overall comprising of double door size 1800 x 2100mm high with Fixed light and Side Lights on either side, with Human sensed automatic door opener, comprising 11No. fixed panes (D01) (drawing No WG100-D01)	No	2			
	Carried Forward			R		

	Brought Forward			R		
59	Double door 2180 x 2500m high overall comprising of double door size 1800 x 2100mm high with Fixed light and Side Lights on either side, with Human sensed automatic door opener, comprising 11No. fixed panes (D21) (drawing No WG100-D21)	No	1			
60	Double door 3000 x 2500m high overall comprising of double door size 1800 x 2100mm high with Fixed light and Side Lights on either side, with Human sensed automatic door opener, comprising 11No. fixed panes (D4) (drawing No WG100-D4)	No	1			
61	Sliding Folding door size 3000 x 2500mm high with four leafs (D02) (drawing No WG100-D02) & (D03) (drawing No WG500-D03)	No	2			
62	Double door 4026 x 2500m high overall comprising of double door size 1800 x 2100mm high with Fixed light and Side Lights on either side, with Human sensed automatic door opener, comprising 11No. fixed panes (D20) (drawing No WG100-D20	No	1			
63	Double door 3600 x 2500m high overall comprising of double door size 1800 x 2100mm high with Fixed light and Side Lights on either side, with Human sensed automatic door opener, comprising 11No. fixed panes (D07) (drawing No WG100-D07)	No	1			
64	Shop Front 9420 x 2500m high overall comprising of double door size 1800 x 2100mm high with Fixed light and Side Lights on either side, comprising of 2 x double doors size 1800 x 2100mm high and 32No. fixed panes (D17) (drawing No WG100-D17)	No	1			
	Alusec Clipfront 44 section by Wispeco or equal and approved powder coated aluminium doors in Matt Dark Umber Grey glazed with 6mm Toughened Laminated Clear glass and plugged to brickwork or concrete					
65	Single door 900 x 2355mm high overall with 4No. fixed panes (D02) (drawing No WG600-D02)	No	1			
	Carried Forward			R		

				R		
	Brought Forward					
66	Double door 1600 x 2350mm high overall with 4No. fixed panes (D01) (drawing No WG600-D01)	No	2			
67	Double door 1200 x 2355mm high overall with 4No. fixed panes (D03) (drawing No WG600-DS 02)	No	1			
68	Double door 1200 x 2100mm high overall with 4No. fixed panes (D04) (drawing No WG600-DS 02)	No	3			
	Carried Forward to Summary of Section No. 3			R		

Section No. 3
Bill No. 10
Metalwork
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO 11					
	PLASTERING					
	MOISTURE BARRIER					
	VaporiTe Plus applied in two coats directionally to ensure full coverage of the surface					
	Allow 4 hours between coats to ensure the product is adequately cured, Following the final coat, sufficient time must be allowed for the product to cure completely prior to proceeding with the application of iTeSlurry					
1	On floors	m2	2 305			
	GRANOLITHIC					
	Untinted granolithic waterproofed with waterproofing additive on concrete					
2	40mm Thick on floors and landings	m2	224			
3	Skirting 150mm high	m	260			
	SCREEDS					
	Carried Forward			R		

	Brought Forward			R		
	LEVELiTE F30 or equal and approved self levelling screed compound developed for heavy commercial and light industrial applications that sets to 25MPa **Surface Preparation** Due to the inability to control environmental factors such as wind or heat, It is recommended that direct to ground sub-floors be protected from rising damp to prevent dimensional changes in the floor covering (confirm the maximum permissible moisture content that the floor covering or adhesive can tolerate). The surface must be hard, sound, dry and free of dust, dirt and other materials such as grease, oil and paint. Due to its flow characteristics, sealing strips should be placed at doorways or where the levelling compound is not desired. **Priming** BONDiTe® or equal and approved primer and bonding agent essential component in priming the substrate prior to application of the self levelling screed. It acts as a pore sealer which will maintain the flow life and prevent air bubbles rising through the applied Self levelling screed smoothing compound. With very smooth non-absorbent sub-floors e.g. epoxy coated water barriers and ceramic tiles, it is essential to apply iTe SLURRY®, or to lightly grind the surface to promote adhesion. When the slurry is dry, the surface should be ready for application of the LEVELiTe® F30 or equal and approved levelling compound.					
4	5mm Thick on floors and landings	m2	2 081			
5	Skirting 150mm high	m	1 840			
	Carried Forward			R		

	Brought Forward			R		
	INTERNAL PLASTER					
	Cement plaster on brickwork					
6	On walls	m2	5 323			
7	On narrow widths	m2	68			
	Carried Forward to Summary of Section No. 3			R		

Item No			Quantity	Rate	Amount	
	BILL NO. 12					
	TILING					
	SUPPLEMENTARY PREAMBLES					
	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					
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat.					
	Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the range of products as recommended by the manufacturer of the tiles					
	WALL TILING					
	300 x 300 x 8,5mm Unglazed Porcelain tiles (PC R400/m² for supply and delivery) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted jointing compound					
1	On walls in isolated panels, splashbacks, etc	m2	23			
	FLOOR TILING					
	200 x 330 x 7mm Unglazed Porcelain floor tiles fixed on 25mm bedding on concrete and flush pointed with tinted waterproof jointing compound:					
2	On floors and landings	m2	554			
	Carried Forward			R		

	Brought Forward			R	
3	Skirting 100mm high cut tiles	m	635		
	Carried Forward to Summary of Section No. 3			R	

Section No. 3
Bill No. 12
Tiling
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	BILL NO. 13 **PLUMBING AND DRAINAGE (PROVISIONAL)** **SUPPLEMENTARY PREAMBLES** Polycop polypropylene pipes Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with Fast-fuse heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions All pipe diameters are nominal external Polylink polypropylene pipes Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron Supraclamp running joints Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers Branch tees shall include flanged and bolted joints to Polycop branch pipes in addition and for brass compression male iron to copper straight couplers				
	Carried Forward		R		

	Brought Forward		R		
	Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions All pipe diameters are nominal external				
	Concrete pipes				
	Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings				
	Vitrified clay pipes etc				
	Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid				
	uPVC pipes and fittings				
	Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings				
	Soil, waste and vent pipes and fittings shall be solvent weld jointed				
	uPVC pressure pipes and fittings				
	Pipes for water supply shall be of the class stated				
	Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings				
	Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints				
	Carried Forward		R		

	Brought Forward		R		
	Copper pipes Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground Lead pipes and traps All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel Reducing fittings Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained Wire gratings Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings				
	Carried Forward		R		

	Brought Forward		R		
	Septic tanks Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions Exposed concrete surfaces Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster Excavations No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks" Laying, backfilling, bedding, etc of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions				
	Carried Forward		R		

	Brought Forward		R		
	Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding <u>Flush pans</u> Flush pans shall have straight or side outlets and P or S traps as necessary <u>Stainless steel basins, sinks, wash troughs, urinals, etc</u> Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable <u>Waste unions</u> Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings <u>Steel sectional water tanks</u> Tanks shall comply with SABS CKS 114				
	Carried Forward		R		

	Brought Forward			R		
	Densyl petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, Layflat sheeting, securing of same, etc Prices for wrapping of pipes shall include for all work as described to couplings in the length					
	RAINWATER DISPOSAL					
	Marley Streamline or equal and approved uPVC					
1	Square eaves gutters	m	860			
2	Extra over eaves gutter for angle	No	74			
3	Extra over eaves gutter for outlet for pipe	No	168			
4	Square rainwater pipes	m	538			
5	Extra over rainwater pipe for bend	No	168			
6	Extra over rainwater pipe for shoe	No	168			
7	Extra over rainwater pipe for eaves or plinth offset 300mm projection	No	168			
	Fulbore cast iron outlets					
8	100mm 90 Degree side outlet	No	2			
	SANITARY FITTINGS					
	Carried Forward			R		

	Brought Forward			R		
	Vaal or equal and approved					
9	vitreous china 610 x 460mm rectangular "Solar 610" basin with no tap hole and integrated overflow (product code 703800).	No	27			
10	vitreous china 610 x 460mm rectangular "Concorde 610" basin with no semi-punched tap hole and integrated overflow (product code 702400).	No	6			
11	vitreous china 630 x 460mm rectangular "Concorde 630" basin with no semi-punched tap hole and integrated overflow (product code 702400).	No	16			
12	Ceramic fire clay 595 x 455mm 'Cameo' oval self-rimming vanity basin (code: 702803) including intergrated overflow and chainstay hole and flexible overflow attachments (code: 8784Z0)	No	8			
13	Universal half pedestal with 2 x 6mm fixing screws (product code 715222).	No	22			
14	Vitreous china wall hung 'Lavatera' urinal size 600 x 385 x 380mm (code: 205062) with top inlet (code: 705426) and back inlet fittings (code: 7054Z2)	No	7			
15	vitreous china "Pearl Paraplegic" semi-close coupled 90° outlet open rim washdown pan and matching 9-liter cistern complete with lid, fitments, purpose made C.P. side-flush lever (left or right) and purpose made urea seat. The suite is designed to flush effectively on 6 litres and supplied with purpose made thermoset seat and cover with floor bracket (code: 8082Z0)	No	6			
16	Vitreous china 'Shelter' back inlet close couple toilet	No	15			
17	Vitreous china "Orchid" back inlet (code: 439016) wall hung open rim pan with a matching 6litre push button top dual flush back inlet cistern (code: 4386DT) complete with lid fitments and purpose made thermoset seat and cover plate.	No	5			
	Carried Forward			R		

	Brought Forward			R		
18	Vitreous china 'Hibiscus' close coupled 90° outlet open rim wash down pan and matching 9-litre cistern complete with lid, fitments, purpose made flush lever and purpose made thremoset seat and cover plate (Code: 772654) Franke or equal and approved	No	25			
19	Quinline Quinline CEB single bowl sink size 900 x 500mm with integrated overflow, without tap holes with90mm waste (code: QLX611).	No	16			
20	Quinline Quinline CEB Double bowl sink size 900 x 500mm with integrated overflow, without tap holes with90mm waste (code: QLX622).	No	1			
21	Trendline 711 drop on single end bowl sink size 800 x 460mm with turn down size 50 x 10mm with a beaded edge on the side	No	1			
22	Model "S2" double bowl centre Catering sink with a 150mm high integrated splash back to the rear and 50 x 10mm turn down with a beaded edge on the remaining side.	No	1			
23	LDS Drip sink size 600 x 500 x 258mm deep with grid, falcon brackets, 100mm high integral splash back with a pressed bowl and a hinged round bar bucket grid fitted over the drip sink (Code: 350960)	No	3			
24	Model EC6 Combination Bedpan wash-up sink and 1,2mm thick bowls with 150mm high integral rear splash back and 15mm deep hospital bead, 100mm apron to front and sides, integral flushing rim and a 38mm diameter inlet pipe flush valve (Code: 351360) including factory fitted Cobra FM 1.00 flush valve and waste outlet on sluice bowl and rinse bowl size 610 x 460 x 3230mm deep with a 40mm waste discharging into sluice bowl	No	1			
	Carried Forward			R		

				R		
	Brought Forward					
25	Model SMS surgeon scrub-up unit size 665 x 554 x 258mm deep with 300mm high integral splash back, with tap holes for, with a 90mm waste outlet for basket strainer fittings (code: 350960)	No	1			
26	Rondo prep bowl with pre-drilled tap hole (code: 610-44)	No	3			
27	ET103 Fabricated single mini wash trough with 90mm waste (code: 2560007)	No	3			
28	Model CBDT inset baby bath size 915 x 550 x 150mm deep with a one piece pressed semi circular bowl measuring 695 x 385 x 150mm deep (code: 2630031)	No	1			
29	'Oval B' Wash hand basin size 420 x 336 x 130mm deep with a 30mm splash back and 30mm apron	No	6			
	SHOWERS					
	Cobra or equal and approved					
30	'Metsi' under wall heated part, ½, light pattern, pre-packed with 15mm copper compression inlet 1 x cold, 1 x hot installer (code: P-53-2ML)	No	17			
31	'Zambezi' wall mounted shower arm and shower head (code: 076ZM-RND)	No	17			
	WASTE UNIONS ETC					
	Franke or equal and approved:					
32	32mm Un-slotted chromium plated Basin waste (code: BV32BS)	No	66			
33	PVC waste and plugs with handle (code: 302021)	No	18			
34	40mm waste outlet	No	5			
35	38mm Chrome plated domical grating with 20mm diameter threaded spreader	No	7			
	Carried Forward			R		

				R		
	Brought Forward					
	TRAPS ETC					
	uPVC					
36	Deep seal P or S trap	No	19			
37	Rubber P-trap (code: 340)	No	3			
	Franke or equal and approved:					
38	Standard Small Bottle Trap in Chrome (Code: BVBTS)	No	63			
39	Chrome bottle trap with 75mm deep re-seal, adjustable telescopic pipe (Code: COB-345/50)	No	7			
40	Chrome plated bottle trap (Code: 340)	No				
	TAPS, VALVES, ETC					
	Cobra or equal and approved					
41	Pillar type single lever basin mixer (code: MI-294/N)	No	8			
42	32mm Toilet flush valve back entry complete	No	51			
43	Ledimo sink mixer with aerated swivel outlet (code: MI-266/041/10/N)	No	20			
44	Elbow action ¼ ceramic turn wall type mixer with swivel outlet (code: 515/055H-21)	No	54			
45	Pillar mixer with over-arm swivel spout (code: CP171/041)	No	1			
46	Pillar mixer with retractable hand spray (code: CP297)	No	1			
47	15mm bedpan spray nozzle	No	1			
48	15mm bottle spray nozzle (activated by two 15mm 2 ¼ turn elbow action valves)	No	1			
	Carried Forward			R		

				R		
	Brought Forward					
49	15mm Elbow action medical mixer (Model 508)	No	4			
50	Top inlet fittings (code: 7054Z1)	No	7			
51	Flush junior exposed urinal flush valve (code: FFUUSUFJ-OGT01)	No	7			
52	Medical mixer fixed to back splash tiles over basin (code: 511-21)	No	6			
	SANITARY PLUMBING (PROVISIONAL)					
	uPVC pipes:					
53	40mm Pipes fixed to or chased into brickwork.	m	435			
54	50mm Pipes fixed to or chased into brickwork.	m	435			
55	110mm Pipes fixed to or chased into brickwork.	m	435			
	Extra over uPVC pipes for fittings.:					
56	40mm Bend.	No	435			
57	50mm Bend.	No	435			
58	40mm Junction.	No	435			
59	50mm Junction.	No	435			
60	110mm End cap.	No	145			
61	110mm Access bent pan connector.	No	145			
62	110mm Access bend.	No	145			
63	110mm Access junction.	No	145			
64	Stub stack with overflow cap and waste connection in uPVC pipe	No	145			
	Carried Forward			R		

	Brought Forward			R	
65	110mm Access bent pan connector.	No	145		
	Sundries.:				
66	Testing waste pipe system.		Item		
	WATER SUPPLY				
	SUPPLEMENTARY PREAMBLES				
	'Polycop' polypropylene pipes:				
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fastfuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated. Pipes shall be firmly fixed to walls, etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions. All pipe diameters are nominal external.				
	Copper pipes:				
	Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.				
	Carried Forward			R	

	Brought Forward			R	
	Copper pipes chased in walls: Where pipes have been chased in walls, the price for making good of plaster and paint, etc. shall be deemed to be included in the description of pipe chased in walls. **Fixing of pipes** Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls, etc. casting in, building in or suspending not exceeding 1m below suspension level. No allowance for holes and drilling for pipes through walls has been made in these Bills of quantities, the price for all holes and making good shall be deemed to be included in the descriptions of the pipes. **WATER SUPPLIES** Class 2 copper pipes.:				
67	15mm Pipes chased into brick walls.	m	465		
68	22mm Pipes chased into brick walls.	m	372		
69	35mm Pipes chased into brick walls.	m	279		
	Extra over class 2 copper and polypropylene pipes for brass compression fittings.:				
70	15mm Fittings.	No	372		
71	22mm Fittings.	No	279		
	Carried Forward			R	

	Brought Forward			R		
72	35mm Elbow.	No	186			
73	35mm Bend	No	93			
	Extra over class 2 copper pipes for capillary fittings:					
74	15mm Fittings.	No	279			
75	22mm Fittings.	No	186			
76	35mm Elbow.	No	93			
	Testing:					
77	Testing water pipe system.		Item			
	ELECTRIC WATER HEATERS					
	Franke or equal and approved					
78	White epoxy 5lt Hydroboil (code: 205062)	No	5			
	Carried Forward to Summary of Section No. 3			R		

Item No			Quantity	Rate	Amount	
	BILL NO 14					
	GLAZING					
	TOPS, SHELVES, DOORS, MIRRORS, ETC					
	Plate glass mirror with polished edges and holes at four corners, fixed to wall with foam backing strip all round in conformance with SANS 1263-1 safety and security glazing materials					
1	Mirror size 300 x 1000mm high x 6,38mm thick	No	63			
2	Mirror size 900 x 1800mm high x 6,38mm thick	No	12			
	Carried Forward to Summary of Section No. 3			R		

Item No		Quantity	Rate	Amount	
	BILL NO 15 **PAINTWORK** **SPECIFICATION** Unless otherwise specified painting generally is to be in accordance with Dulux specifications **PREPARATORY WORK TO EXISTING WORK** Previously painted plastered surfaces Ensure that surfaces are sound and free from dust, oil, grease, dirt, and debris. Surfaces must be thoroughly dry - no more than 12% moisture content. Prior to painting, a reputable damp proofing specialist is to establish and repair all causes of moisture ingress in the structure such as but not limited to: rising/lateral dampness; water penetration from balconies/stairwells/walkways; moisture originating from copings and horizontal parts; leaks between the window frame and the plaster; joints, both vertical and horizontal; dampness as a result of earth-retention; suspected plumbing leaks; surface and structural cracks etc. All to be done in strict accordance with approved damp proofing methods. All V-Joints and/or Expansion Joints need to be inspected and re mediated before painting can commence. All weep holes need to be inspected and repaired (where applicable) before painting can commence. Crosshatch tests should be done on areas where the adhesion of paint is suspect. Feather edges of tightly bonded paint with rough to medium grit paper to smooth them off and provide an even surface without repair witnesses. **Carried Forward**		R		

	Brought Forward			R	
	For surfaces exhibiting excessive chalkiness, a full coat of primer is necessary to aid adhesion Only Dulux POS Mix2Win Next standard colour formulation's may be used, for Non-Standard Mix2Win Next / custom mixed colours, email dts.helpline@akzonobel.com to obtain approval at the start of project. All exterior walls to be high pressure water cleaned at 180 - 200 bar operating pressure using a rotating nozzle to remove all surface contamination, loose and flaking paint and any chalky residue as well as opening cracks or point out suspect plaster. Remove any remaining loose, flaking paint from the surface with a sharp paint scraper and firm hand pressure. It is not necessary to remove well-bonded layers of paint. <u>Previously painted metal surfaces</u> Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal <u>Previously painted wood surfaces</u> 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 **<u>PAINTWORK ETC TO PREVIOUSLY PAINTED WORK</u>** **<u>ON FLOATED PLASTER SURFACES WITH</u>** <u>One coat plaster primer and two coats approved PVA and three coats Matt Acrylic paint</u>				
1	Internal walls	m2	1 869		
	Carried Forward			R	

	Brought Forward			R		
	One coat Ecosure Primer and two coats approved anti-bacterial / satin resistant PVA paint and three coats approved anti-bacterial paint					
2	Internal walls *(Bathrooms, Kitchenette, Toilets, Wet Areas, High Traffic Areas)*	m2	356			
	PAINTWORK ETC TO NEW WORK					
	ON SMOOTH CONCRETE					
	One coat primer and two coats Epoxy paint on					
3	Power floated floors	m2	30			
	One coat plaster primer and two coats approved PVA and three coats Matt Acrylic paint					
4	Internal walls	m2	99			
	ON FLOATED PLASTER SURFACES WITH					
	One coat plaster primer and two coats approved PVA and three coats Matt Acrylic paint					
5	Internal walls	m2	5 057			
	One coat Ecosure Primer and two coats approved anti-bacterial / satin resistant PVA paint and three coats approved anti-bacterial paint					
6	Internal walls *(Bathrooms, Kitchenette, Toilets, Wet Areas, High Traffic Areas)*	m2	266			
	ON PLASTER BOARD					
	One coat Dulux Trade Alkali resistant plaster primer and Town coats Dulux Trade 65 Matt PVa					
7	Ceilings and cornices	m2	1 017			
	Carried Forward			R		

				R		
	Brought Forward					
	WOOD SURFACES WITH					
	One coat Dulux primer for wood, one coat Dulux Trade Universal undercoat and Town coats Dulux Pearlglo Water-Based					
8	Cornices, rails, etc not exceeding 300mm girth	m	1 733			
9	Door frames	m2	5			
10	Doors	m2	355			
11	Roof timbers at eaves and verges	m2	446			
	ON METAL					
	One coat Dulux primer for wood, one coat Dulux Trade Universal undercoat and Town coats Dulux Pearlglo Water-Based					
12	Door frames	m2	81			
	Carried Forward to Summary of Section No. 3			R		

Section No. 3
Bill No. 15
Paintwork
TENDER BILLS OF QUANTITIES

Proposed Major Upgrades to
Existing PAX Clinic
Viljoenskroon

SECTION SUMMARY - Building Works

Bill No		Page No		Amount
1	Earthworks	38		
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5	Roof Covering, etc.	51		
6	Carpentry & Joinery	77		
7	Ceilings, Partitions and Access Flooring	82		
8	Floor Coverings, Plastic Linings, etc.	84		
9	Ironmongery	90		
10	Metalwork	108		
11	Plastering	111		
12	Tiling	113		
13	Plumbing & Drainage	127		
14	Glazing	128		
15	Paintwork	132		
	Carried to Final Summary		R	

Section No. 3
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	SECTION NO.3				
	BILL NO. 1				
	PRELIMINARIES				
	Allow for all preliminary and general items required to provide the electrical installation for this project, but excluding items priced elsewhere in these Bills (These amounts will be paid pro rata to the rest of the amounts claimed by the contractor relative to the tender amount)				
	CONTRACTUAL REQUIREMENTS				
1	Tenderers to allow for compliance with all the conditions of contract and the OHS Act in particular		SUM		
	JOINT TRADES				
2	Tenderers to allow for all costs which may be required in order to coordinate and liaise with the other Trade contractors		SUM		
	SUPERVISOR				
3	Tenderers to allow for a full time working supervisor during the duration of the electrical contract, who shall have the delegated authority to receive instructions and make decisions regarding this contract		SUM		
	SITE ESTABLISHMENT				
4	Tenderers to allow for all costs which may be required in order to place the necessary facilities on site for safe storage and orderly management purposes for the duration of the contract		SUM		
	Carried Forward to Summary of Section No. 4		R		

Section No. 4
Bill No. 1
Preliminaries
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	SECTION NO.3					
	BILL NO. 2					
	LV RETICULATION, AREA LIGHTING AND LIGHTNING PROTECTION					
	Allow for all items required to provide all distribution boards as specified and not included elsewhere, together with all LV cable supplies between the substations and these boards, including also for all earth conductors and cable trays					
	LV CABLES					
	Provide multi-core armoured cables with copper conductors in the required lengths installed in trenches, on trays, against structures, in sleeves and in wiring channels, including for the fixing thereof					
1	300mm2 4-core	m	50			
2	240mm2 4-core	m				
3	185mm2 4-core	m	200			
4	150mm2 4-core	m				
5	120mm2 4-core	m	100			
6	95mm2 4-core	m				
7	70mm2 4-core	m	200			
8	50mm2 4-core	m	100			
9	25mm2 4-core	m	300			
	Carried Forward			R		

				R		
	Brought Forward					
10	16mm2 4-core	m	300			
11	10mm2 4-core	m	100			
12	6mm2 3-core	m	400			
	TERMINATION OF LV CABLES					
	The supply of the correct glands, shrouds, lugs, tape, heat shrink material, clamps, nuts, washers and bolts, etc. and the provision of the complete cable termination in boards or on/in equipment					
13	185mm2 4-core cable termination	EA	4			
14	120mm2 4-core cable termination	EA	2			
15	70mm2 4-core cable termination	EA	4			
16	50mm2 4-core cable termination	EA	4			
17	25mm2 4-core cable termination	EA	6			
18	16mm2 4-core cable termination	EA	6			
19	10mm2 4-core cable termination	EA	6			
20	6mm2 3-core cable termination	EA	40			
	MAIN EARTH CONDUCTORS					
	Carried Forward			R		

	Brought Forward			R		
	The supply of all stranded copper earth conductors (both bare and PVC insulated) and lugs and the installation thereof, together with cables on trays, against structures, in sleeves and in wiring channels, including for the fixing and connecting thereof, but excluding the main earthing in the substations, as well as earths with power and lighting circuits which items are measured elsewhere					
21	150mm2 bare conductor	m	50			
22	120mm2 bare conductor	m				
23	95mm2 bare conductor	m	200			
24	70mm2 bare conductor	m				
25	50mm2 bare conductor	m				
26	35mm2 bare conductor	m	200			
27	25mm2 bare conductor	m	100			
28	16mm2 bare conductor	m	300			
29	10mm2 bare conductor	m				
30	6mm2 bare conductor	m	100			
	GENERAL DISTRIBUTION BOARDS AND CONTROL PANEL					
	The supply installation testing and handing over of all distribution boards and control panels for the supplies to general lighting and power circuits within the building, including for all equipment as specified, but excluding for items measured elsewhere					
31	Kiosk - K1 as per schedule and detail drawing	EA	1			
	Carried Forward			R		

				R	
	Brought Forward				
32	Kiosk- K2 as per schedule and detail drawing	EA	1		
33	Kiosk - K3 as per schedule and detail drawing	EA	1		
	DISTRIBUTION BOARD COMPONENTS				
	The supply of individual components for distribution boards and the installation thereof in boards with sufficient space for this (Prices required for alterations to boards and as such all quantities are provisional)				
34	100 A 1 Phase Electronic kwh Meter	EA			**Rate Only**
35	100 A 3 Phase Electronic kwh Meter	EA			**Rate Only**
	5 kA 1 P Circuit Breakers				
36	5 A - 20 A	EA			**Rate Only**
37	25 A - 60 A	EA			**Rate Only**
38	70 A - 80 A	EA			**Rate Only**
39	90 A - 100 A	EA			**Rate Only**
	5 kA 3 P Circuit Breaker				
40	5 A - 20 A	EA			**Rate Only**
41	25 A - 60 A	EA			**Rate Only**
42	70 A - 80 A	EA			**Rate Only**
43	90 A - 100 A	EA			**Rate Only**
	5 kA 1 P + N Circuit Breaker				
44	5 A - 20 A	EA			**Rate Only**
	Carried Forward			R	

				R	
	Brought Forward				
45	25 A - 60 A	EA			**Rate Only**
46	70 A - 80 A	EA			**Rate Only**
47	90 A - 100 A	EA			**Rate Only**
	30 mA 5 kA Earth Leakage Protection Device				
48	1 P + N 63 A without overload protection	EA			**Rate Only**
	LV SUPPLIES IN CONDUIT				
	The supply and installation of PVC insulated copper conductors and 25mm ø conduit cast in concrete or built into walls and required for supplies to distribution boards. Terminated and connected at both ends				
49	2 x 4mm2 conductors in 25mm ø conduit	m			
50	2 x 6mm2 conductors in 25mm ø conduit	m			
51	4 x 6mm2 conductors + 4mm2 earth wire in 25mm ø conduit	m			
	CABLE TRENCHES, MANHOLES AND SLEEVES				
	All cable trenching necessary to lay new cables and plant lighting poles to expose existing cables including back filling - all to specification and with 75mm earth bed for cables in soft and hard rock trenches (450mm wide x 750mm deep)				
52	Excavations in earth	m	200		
53	Excavation in soft rock	m	100		
54	Excavation in hard rock	m	100		
	Carried Forward			R	

	Brought Forward			R	
	Supply and installation of all UPVC sleeves (complete with couplings, bends, etc)				
55	25mm diameter	m	70		
56	50mm diameter	m	70		
57	75mmdiameter	m	70		
58	110mmdiameter	m	70		
	Manholes as specified				
59	Electrical manholes	EA			
60	Telkom manholes	EA			
	CABLE IDENTIFICATION				
61	Electrical Danger tape as specified	m	400		
62	Cable makers at all cable route deviations as detailed on the layout	EA	10		
	AREA LIGHTING				
63	Type A pole mounted luminaire complete with 3m pole, relevant circuit breaker, cable termination and foundation as specified but excluding luminares which are measured elsewhere.	EA	12		
	COMMISSIONING				
64	Tenderers to allow for all the commissioning requirements, including testing, attendance, as-built drawings, manuals, for the cable work, DBs, power points and lighting points as set out in the specification and SANS 01042, prior to the installation being taken over as complete			SUM	
	Carried Forward			R	

	Brought Forward		R		
	ELECTRICAL CONNECTION				
65	Provisional Amount for the Electrical connection required by the Supply Authority		SUM		
66	500 KVA Mini Sub Complete with concrete plinth		SUM		
67	500 KVA 3 Phase Standby Generator with canopy complete with change over switch panel and all other accessories to make it fully operational.		SUM		
	GENERAL ITEMS				
	Any additional items that the tenderer deems necessary for the successful and total completion of the portion of the work required for this Bill (specify):				
68	Dismantling and removal of existing electrical installation		SUM		
	Carried Forward to Summary of Section No. 4		R		

Section No. 4
Bill No. 2
LV Reticulation, Area Lighting and Lightning Protection
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	SECTION NO. 3					
	BILL NO. 4					
	EMS					
	Note: Electrical installation, including conduits, etc. for other services, but excluding all items covered elsewhere in the Bills of Quantities					
	CONDUIT					
	Rigid conduit, including all couplings, plugs, fixing saddles and screws, cutting bending, fixing, cleaning for wiring purposes					
1	20mm steel cast in concrete or brickwork	m	1 000			
2	25mm steel cast in concrete or brickwork	m	500			
	DRAW BOXES					
	Supply and installation of pressed steel hot dipped galvanized boxes for sockets, draw boxes, etc. flush mounted in brickwork or cast into concrete connected to the conduit installation as specified					
3	100 x 50 x 50mm boxes	EA	30			
4	100 x 100 x 50mm boxes	EA	30			
5	100 x 50 x 50mm surface boxes	EA				
6	100 x 100 x 50mm surface boxes	EA				
7	1 to 4 way draw boxes 65mm dia. installation in brickwork or open ceilings complete with box lid fixing screws	EA	100			
8	Round 65mm dia. x 50mm deep for 20mm conduit	EA				
	Carried Forward			R		

	Brought Forward			R		
9	Round 65mm dia. x 50mm deep for 25mm conduit	EA				
	SWITCH SOCKETS FOR FLUSH					
	Supply and installation of sockets installed in flush and galvanized draw boxes, complete with socket fixing screws					
10	16 A 3-pin double switch socket with coverplate	EA	2			
11	16 A 3-pin single switch socket with coverplate	EA	4			
12	16 A 3-pin single switch socket with a double 2-pin switch socket with coverplate	EA	10			
13	16 A 3-pin single switch socket with coverplate and water proof box	EA				
14	5 A 3-pin unswitched socket outlet	EA	100			
	ISOLATING SWITCHES FOR SURFACE INSTALLATION					
	Supply and installation of the surface mounted isolating switches for single and three phase power points, complete with 100 x 100 x 50mm galvanized draw box, complete with coverplate and fixing screws					
15	60 A double pole isolating switch with coverplate	EA	2			
16	30 A single phase isolating switch with coverplate	EA	10			
17	30 A three phase isolating switch with coverplate	EA	10			
	LIGHT SWITCHES					
	Carried Forward			R		

	Brought Forward			R		
	Supply and installation of the light switches installed in 100 x 50 x 50mm deep galvanized draw box, complete with fixing screws and coverplate					
18	16 A single lever one-way with coverplate	EA	20			
19	16 A single lever two-way with coverplate	EA	6			
20	16 A double lever bolt one-way with coverplate	EA	2			
21	16 A single lever one-way with dimmer control	EA				
22	16 A ceiling mount motion sensor	EA				
23	16 A photocell in an empty bulk head luminaire	No	2			
	CONDUCTORS					
	PVC insulated stranded copper conductors for electrical circuits installed in conduit, power skirting, etc. grouped and connected to equipment (All wasted cut-offs must be included in the tender price					
	1,5mm2					
24	Red	m				
25	Black	m				
26	Green and Yellow/ BCEW	m				
	2,5mm2					
27	Red	m	2 000			
28	Black	m	2 000			
29	Green and Yellow/ BCEW	m	4 000			
	Carried Forward			R		

				R		
	Brought Forward					
	4mm2					
30	Red	m	2 000			
31	Black	m	2 000			
32	Green and Yellow/ BCEW	m				
	LIGHT FITTINGS					
	Supply and installation of the following light fittings, including lamps, wiring, connections and earthing					
33	Type B1	EA	14			
34	Type B2	EA	16			
35	Type F1	EA	3			
36	Type F2	EA	2			
37	Type F2E	EA	4			
38	Type F3	EA				
39	Type F3E	EA				
40	Type F4	EA	25			
41	Type F4E	EA	22			
42	Type E	EA				
	POWER SKIRTING					
	Carried Forward			R		

	Brought Forward			R	
	Supply and installation of power skirting installed on the wall of the building structure, complete with socket outlet cover, coverplates, earth connections and cut out holes for the socket installation				
43	2-Channel 2-compartment power skirting with coverplates, joints, elbows, end caps and fixing to structure	m	70		
44	Internal elbows	EA			**Rate Only**
45	External elbows	EA			**Rate Only**
46	End caps	EA			**Rate Only**
47	Conduit entry along the run	EA			**Rate Only**
	SWITCH SOCKETS FOR POWER SKIRTING				
48	16 A 3-pin single switch socket with coverplate	EA	21		
49	16 A 3-pin single dedicated switch socket with coverplate	EA	21		
50	Telephone outlet points for Power Skirting	EA	21		
51	Data outlet points for Power Skirting	EA	21		
52	400V, 32A 5pin industrial socket outlet	EA			
	POWER POLE				
53	Supply and installation of a power pole, complete with 1 x normal socket outlet, 1 x dedicated socket outlet, 1 x data point and 1 x telephone point	EA			
	WIRING CHANNELS				
	Carried Forward			R	

	Brought Forward			R		
	Supply and installation of wiring channels installed complete with hangers, domelid, beam clamps, coverplates and caps, elbows complete with earth connections and cut of holes for the conduit and light installation					
54	300mm heavy duty cable tray	m	20			
55	300mm wire mesh for IT	m	50			
56	300mm wire mesh for Nurse Call	m				
57	P8000 wiring channel	m	50			
	GENERAL DISTRIBUTION BOARDS AND CONTROL PANEL					
	The supply installation testing and handing over of all distribution boards and control panels for the supplies to general lighting and power circuits within the building, including for all equipment as specified, but excluding for items measured elsewhere					
58	Main DB complete with circuit breakers as per single line diagram	EA	1			
59	Sub DB -1 complete with circuit breakers as per single line diagram	EA	1			
60	Sub DB -2 complete with circuit breakers as per single line diagram	EA	1			
61	Sub DB -3 complete with circuit breakers as per single line diagram	EA	1			
62	Sub DB -3 complete with circuit breakers as per single line diagram	EA	1			
	Carried Forward			R		

	Brought Forward			R	
	ELECTRONICS				
63	Nurse Call Installation as per drawing			SUM	
64	Provisional Amount for CCTV installation & Access Control		Item		300 000,00
65	Provisional Amount for IT Installation		Item		400 000,00
	COMMISSIONING				
66	Tenderers to allow for all the commissioning requirements, including testing, attendance, as-built drawings, manuals, for the cable work, DBs, power points and lighting points as set out in the specification and SANS 01042, prior to the installation being taken over as complete	EA	1		
	LIGHTNING PROTECTION				
67	Total cost for the provision of lightning points as indicated on the layout drawings and specific drawings including testing and issuance of certifcates thereof. Contractors shall allow for the installation and tesing to be performed by approved speciallists.			SUM	
68	PC Amount for Unforseen		Item		120 000,00
	GENERAL ITEMS				
	Any additional items that the tenderer deems necessary for the successful and total completion of the portion of the work required for this Bill (specify):				
69	Dismantling and removal of existing electrical installation			SUM	
	Carried Forward to Summary of Section No. 4			R	

Item No			Quantity	Rate	Amount	
	BILL NO. 5					
	WAITING AREA					
	Note: Electrical installation, including conduits, etc. for other services, but excluding all items covered elsewhere in the Bills of Quantities					
	CONDUIT					
	Rigid conduit, including all couplings, plugs, fixing saddles and screws, cutting bending, fixing, cleaning for wiring purposes					
1	20mm steel cast in concrete or brickwork	m	50			
2	25mm steel cast in concrete or brickwork	m				
	DRAW BOXES					
	Supply and installation of pressed steel hot dipped galvanized boxes for sockets, draw boxes, etc. flush mounted in brickwork or cast into concrete connected to the conduit installation as specified					
3	100 x 50 x 50mm boxes	EA	5			
4	100 x 100 x 50mm boxes	EA	5			
5	100 x 50 x 50mm surface boxes	EA				
6	100 x 100 x 50mm surface boxes	EA				
7	1 to 4 way draw boxes 65mm dia. installation in brickwork or open ceilings complete with box lid fixing screws	EA	20			
8	Round 65mm dia. x 50mm deep for 20mm conduit	EA				
9	Round 65mm dia. x 50mm deep for 25mm conduit	EA				
	Carried Forward			R		

	Brought Forward			R		
	SWITCH SOCKETS FOR FLUSH					
	Supply and installation of sockets installed in flush and galvanized draw boxes, complete with socket fixing screws					
10	16 A 3-pin double switch socket with coverplate	EA				
11	16 A 3-pin single switch socket with coverplate	EA	4			
12	16 A 3-pin single switch socket with a double 2-pin switch socket with coverplate	EA	2			
13	16 A 3-pin single switch socket with coverplate and water proof box	EA				
14	5 A 3-pin unswitched socket outlet	EA	10			
	ISOLATING SWITCHES FOR SURFACE INSTALLATION					
	Supply and installation of the surface mounted isolating switches for single and three phase power points, complete with 100 x 100 x 50mm galvanized draw box, complete with coverplate and fixing screws					
15	60 A double pole isolating switch with coverplate	EA				
16	30 A single phase isolating switch with coverplate	EA	3			
17	30 A three phase isolating switch with coverplate	EA				
	LIGHT SWITCHES					
	Supply and installation of the light switches installed in 100 x 50 x 50mm deep galvanized draw box, complete with fixing screws and coverplate					
18	16 A single lever one-way with coverplate	EA	3			
	Carried Forward			R		

				R		
	Brought Forward					
19	16 A single lever two-way with coverplate	EA				
20	16 A double lever bolt one-way with coverplate	EA				
21	16 A single lever one-way with dimmer control	EA				
22	16 A ceiling mount motion sensor	EA				
23	16 A photocell in an empty bulk head luminaire	EA	1			
	CONDUCTORS					
	PVC insulated stranded copper conductors for electrical circuits installed in conduit, power skirting, etc. grouped and connected to equipment (All wasted cut-offs must be included in the tender price					
	1,5mm2					
24	Red	m				
25	Black	m				
26	Green and Yellow/ BCEW	m				
	2,5mm2					
27	Red	m	200			
28	Black	m	200			
29	Green and Yellow/ BCEW	m	400			
	4mm2					
30	Red	m	200			
31	Black	m	200			
32	Green and Yellow/ BCEW	m				
	Carried Forward			R		

	Brought Forward			R	
	LIGHT FITTINGS				
	Supply and installation of the following light fittings, including lamps, wiring, connections and earthing				
33	Type B1	EA	4		
34	Type B2	EA	4		
35	Type F2	EA			
36	Type F2E	EA			
37	Type F3	EA	2		
38	Type F3E	EA	2		
39	Type F4	EA			
40	Type F4E	EA			
41	Type E	EA			
	POWER SKIRTING				
	Supply and installation of power skirting installed on the wall of the building structure, complete with socket outlet cover, coverplates, earth connections and cut out holes for the socket installation				
42	2-Channel 2-compartment power skirting with coverplates, joints, elbows, end caps and fixing to structure	m			
43	Internal elbows	EA			**Rate Only**
44	External elbows	EA			**Rate Only**
45	End caps	EA			**Rate Only**
	Carried Forward			R	

	Brought Forward			R	
46	Conduit entry along the run	EA			**Rate Only**
	SWITCH SOCKETS FOR POWER SKIRTING				
47	16 A 3-pin single switch socket with coverplate	EA			
48	16 A 3-pin single dedicated switch socket with coverplate	EA			
49	Telephone outlet points for Power Skirting	EA			
50	Data outlet points for Power Skirting	EA			
51	400V, 32A 5pin industrial socket outlet	EA			
	POWER POLE				
52	Supply and installation of a power pole, complete with 1 x normal socket outlet, 1 x dedicated socket outlet, 1 x data point and 1 x telephone point	EA			
	WIRING CHANNELS				
	Supply and installation of wiring channels installed complete with hangers, domelid, beam clamps, coverplates and caps, elbows complete with earth connections and cut of holes for the conduit and light installation				
53	300mm heavy duty cable tray	m	15		
54	300mm wire mesh for IT	m			
55	300mm wire mesh for Nurse Call	m			
56	P8000 wiring channel	m			
	GENERAL DISTRIBUTION BOARDS AND CONTROL PANEL				
	Carried Forward			R	

	Brought Forward			R		
	The supply installation testing and handing over of all distribution boards and control panels for the supplies to general lighting and power circuits within the building, including for all equipment as specified, but excluding for items measured elsewhere					
57	DB - Waiting Area complete with circuit breakers as per single line diagram	EA	1			
	ELECTRONICS					
58	Nurse Call Installation as per drawing			SUM		
59	Provisional Amount for CCTV installation & Access Control		Item		30 000,00	
60	Provisional Amount for IT Installation			SUM		
	COMMISSIONING					
61	Tenderers to allow for all the commissioning requirements, including testing, attendance, as-built drawings, manuals, for the cable work, DBs, power points and lighting points as set out in the specification and SANS 01042, prior to the installation being taken over as complete	EA	1			
	LIGHTNING PROTECTION					
62	Total cost for the provision of lightning points as indicated on the layout drawings and specific drawings including testing and issuance of certifcates thereof. Contractors shall allow for the installation and tesing to be performed by approved speciallists.			SUM		
63	PC Amount for Unforseen			SUM		
	Carried Forward			R		

	Brought Forward		R		
	GENERAL ITEMS				
	Any additional items that the tenderer deems necessary for the successful and total completion of the portion of the work required for this Bill (specify):				
64	Dismantling and removal of existing electrical installation		SUM		
	Carried Forward to Summary of Section No. 4		R		

Item No			Quantity	Rate	Amount	
	BILL NO. 6					
	GUARD HOUSE					
	Note: Electrical installation, including conduits, etc. for other services, but excluding all items covered elsewhere in the Bills of Quantities					
	CONDUIT					
	Rigid conduit, including all couplings, plugs, fixing saddles and screws, cutting bending, fixing, cleaning for wiring purposes					
1	20mm steel cast in concrete or brickwork	m	100			
2	25mm steel cast in concrete or brickwork	m				
	DRAW BOXES					
	Supply and installation of pressed steel hot dipped galvanized boxes for sockets, draw boxes, etc. flush mounted in brickwork or cast into concrete connected to the conduit installation as specified					
3	100 x 50 x 50mm boxes	EA	3			
4	100 x 100 x 50mm boxes	EA	5			
5	100 x 50 x 50mm surface boxes	EA				
6	100 x 100 x 50mm surface boxes	EA				
7	1 to 4 way draw boxes 65mm dia. installation in brickwork or open ceilings complete with box lid fixing screws	EA	20			
8	Round 65mm dia. x 50mm deep for 20mm conduit	EA				
9	Round 65mm dia. x 50mm deep for 25mm conduit	EA				
	Carried Forward			R		

	Brought Forward			R		
	SWITCH SOCKETS FOR FLUSH					
	Supply and installation of sockets installed in flush and galvanized draw boxes, complete with socket fixing screws					
10	16 A 3-pin double switch socket with coverplate	EA	2			
11	16 A 3-pin single switch socket with coverplate	EA				
12	16 A 3-pin single switch socket with a double 2-pin switch socket with coverplate	EA	2			
13	16 A 3-pin single switch socket with coverplate and water proof box	EA				
14	5 A 3-pin unswitched socket outlet	EA	10			
	ISOLATING SWITCHES FOR SURFACE INSTALLATION					
	Supply and installation of the surface mounted isolating switches for single and three phase power points, complete with 100 x 100 x 50mm galvanized draw box, complete with coverplate and fixing screws					
15	60 A double pole isolating switch with coverplate	EA				
16	30 A single phase isolating switch with coverplate	EA	3			
17	30 A three phase isolating switch with coverplate	EA				
	LIGHT SWITCHES					
	Supply and installation of the light switches installed in 100 x 50 x 50mm deep galvanized draw box, complete with fixing screws and coverplate					
18	16 A single lever one-way with coverplate	EA	2			
	Carried Forward			R		

				R		
	Brought Forward					
19	16 A single lever one-way outdoor with coverplate	EA				
20	16 A double lever bolt one-way with coverplate	EA	1			
21	16 A single lever one-way with dimmer control	EA				
22	16 A ceiling mount motion sensor	EA				
23	16 A photocell in an empty bulk head luminaire	EA	1			
	CONDUCTORS					
	PVC insulated stranded copper conductors for electrical circuits installed in conduit, power skirting, etc. grouped and connected to equipment (All wasted cut-offs must be included in the tender price					
	1,5mm2					
24	Red	m				
25	Black	m				
26	Green and Yellow/ BCEW	m				
	2,5mm2					
27	Red	m	200			
28	Black	m	200			
29	Green and Yellow/ BCEW	m	400			
	4mm2					
30	Red	m	200			
31	Black	m	200			
	Carried Forward			R		

				R	
	Brought Forward				
32	Green and Yellow/ BCEW	m			
	LIGHT FITTINGS				
	Supply and installation of the following light fittings, including lamps, wiring, connections and earthing				
33	Type B1	EA	1		
34	Type B2	EA	4		
35	Type F1	EA	2		
36	Type F2	EA	4		
37	Type F2E	EA	5		
	POWER SKIRTING				
	Supply and installation of power skirting installed on the wall of the building structure, complete with socket outlet cover, coverplates, earth connections and cut out holes for the socket installation				
38	2-Channel 2-compartment power skirting with coverplates, joints, elbows, end caps and fixing to structure	m	4		
39	Internal elbows	EA	1		**Rate Only**
40	External elbows	EA	1		**Rate Only**
41	End caps	EA	1		**Rate Only**
42	Conduit entry along the run	EA	1		**Rate Only**
	SWITCH SOCKETS FOR POWER SKIRTING				
43	16 A 3-pin single switch socket with coverplate	No	2		
	Carried Forward			R	

	Brought Forward			R		
44	16 A 3-pin single dedicated switch socket with coverplate	No	2			
45	Telephone outlet points for Power Skirting	No	2			
46	Data outlet points for Power Skirting	No	2			
47	16 A 3-pin single switch socket with coverplate	EA	2			
48	16 A 3-pin single dedicated switch socket with coverplate	EA	2			
49	Telephone outlet points for Power Skirting	EA	2			
50	Data outlet points for Power Skirting	EA	2			
51	400V, 32A 5pin industrial socket outlet	EA				
	POWER POLE					
52	Supply and installation of a power pole, complete with 1 x normal socket outlet, 1 x dedicated socket outlet, 1 x data point and 1 x telephone point	EA				
	WIRING CHANNELS					
	Supply and installation of wiring channels installed complete with hangers, domelid, beam clamps, coverplates and caps, elbows complete with earth connections and cut of holes for the conduit and light installation					
53	300mm heavy duty cable tray	m				
54	300mm wire mesh for IT	m				
55	300mm wire mesh for Nurse Call	m				
56	P8000 wiring channel	m				
	Carried Forward			R		

	Brought Forward			R	
	GENERAL DISTRIBUTION BOARDS AND CONTROL PANEL				
	The supply installation testing and handing over of all distribution boards and control panels for the supplies to general lighting and power circuits within the building, including for all equipment as specified, but excluding for items measured elsewhere				
57	DB - Guard House complete with circuit breakers as per single line diagram	EA	1		
	ELECTRONICS				
58	Nurse Call Installation as per drawing			SUM	
59	Provisional Amount for CCTV installation & Access Control		Item		30 000,00
60	Provisional Amount for IT Installation		Item		50 000,00
	COMMISSIONING				
61	Tenderers to allow for all the commissioning requirements, including testing, attendance, as-built drawings, manuals, for the cable work, DBs, power points and lighting points as set out in the specification and SANS 01042, prior to the installation being taken over as complete	EA	1		
	LIGHTNING PROTECTION				
62	Total cost for the provision of lightning points as indicated on the layout drawings and specific drawings including testing and issuance of certifcates thereof. Contractors shall allow for the installation and tesing to be performed by approved speciallists.			SUM	
63	PC Amount for Unforseen			SUM	
	Carried Forward			R	

Section No. 4
Bill No. 5
Guard House
TENDER BILLS OF QUANTITIES

	Brought Forward		R		
	GENERAL ITEMS				
	Any additional items that the tenderer deems necessary for the successful and total completion of the portion of the work required for this Bill (specify):				
64	Dismantling and removal of existing electrical installation		SUM		
	Carried Forward to Summary of Section No. 4		R		

Section No. 4
Bill No. 5
Guard House
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO. 7					
	STAFF ACCOMMODATION					
	Note: Electrical installation, including conduits, etc. for other services, but excluding all items covered elsewhere in the Bills of Quantities					
	CONDUIT					
	Rigid conduit, including all couplings, plugs, fixing saddles and screws, cutting bending, fixing, cleaning for wiring purposes					
1	20mm pvc cast in concrete or brickwork	m	3 000			
2	25mm PVC cast in concrete or brickwork	m	3 000			
	DRAW BOXES					
	Supply and installation of pressed steel hot dipped galvanized boxes for sockets, draw boxes, etc. flush mounted in brickwork or cast into concrete connected to the conduit installation as specified					
3	100 x 50 x 50mm boxes	EA	65			
4	100 x 100 x 50mm boxes	EA	85			
5	100 x 50 x 50mm surface boxes	EA				
6	100 x 100 x 50mm surface boxes	EA				
7	1 to 4 way draw boxes 65mm dia. installation in brickwork or open ceilings complete with box lid fixing screws	EA	200			
8	Round 65mm dia. x 50mm deep for 20mm conduit	EA				
9	Round 65mm dia. x 50mm deep for 25mm conduit	EA				
	Carried Forward			R		

	Brought Forward			R		
	SWITCH SOCKETS FOR FLUSH					
	Supply and installation of sockets installed in flush and galvanized draw boxes, complete with socket fixing screws					
10	16 A 3-pin double switch socket with coverplate	EA	67			
11	16 A 3-pin single switch socket with coverplate	EA	15			
12	16 A 3-pin single switch socket, 2x usb ports and a double 2-pin switch socket with coverplate	EA				
13	16 A 3-pin single switch socket with coverplate and water proof box	EA				
14	5 A 3-pin unswitched socket outlet	EA				
	ISOLATING SWITCHES FOR SURFACE INSTALLATION					
	Supply and installation of the surface mounted isolating switches for single and three phase power points, complete with 100 x 100 x 50mm galvanized draw box, complete with coverplate and fixing screws					
15	60 A double pole isolating switch with coverplate	EA	17			
16	60 A double pole isolating switch with coverplate	EA	17			
17	30 A three phase isolating switch with coverplate	EA				
	LIGHT SWITCHES					
	Supply and installation of the light switches installed in 100 x 50 x 50mm deep galvanized draw box, complete with fixing screws and coverplate					
18	16 A single lever one-way with coverplate	EA	35			
	Carried Forward			R		

				R		
	Brought Forward					
19	16 A single lever two-way with coverplate	EA	30			
20	16 A double lever bolt one-way with coverplate	EA				
21	16 A single lever one-way with dimmer control	EA				
22	16 A ceiling mount motion sensor	EA				
23	16 A photocell in an empty bulk head luminaire	EA	2			
	CONDUCTORS					
	PVC insulated stranded copper conductors for electrical circuits installed in conduit, power skirting, etc. grouped and connected to equipment (All wasted cut-offs must be included in the tender price					
	1,5mm2					
24	Red	m				
25	Black	m				
26	Green and Yellow/ BCEW	m				
	2,5mm2					
27	Red	m	6 000			
28	Black	m	6 000			
29	Green and Yellow/ BCEW	m	9 000			
	4mm2					
30	Red	m	6 000			
31	Black	m	6 000			
	Carried Forward			R		

				R	
	Brought Forward				
32	Green and Yellow/ BCEW	m			
	LIGHT FITTINGS				
	Supply and installation of the following light fittings, including lamps, wiring, connections and earthing				
33	Type B1	EA	15		
34	Type B2	EA	20		
35	Type C	EA	15		
36	Type C1	EA	15		
37	Type F1	EA	30		
38	Type F2	EA	5		
39	Type F2E	EA	4		
	POWER SKIRTING				
	Supply and installation of power skirting installed on the wall of the building structure, complete with socket outlet cover, coverplates, earth connections and cut out holes for the socket installation				
40	2-Channel 2-compartment power skirting with coverplates, joints, elbows, end caps and fixing to structure	m			
41	Internal elbows	EA			**Rate Only**
42	External elbows	EA			**Rate Only**
43	End caps	EA			**Rate Only**
44	Conduit entry along the run	EA			**Rate Only**
	Carried Forward			R	

	Brought Forward			R		
	SWITCH SOCKETS FOR POWER SKIRTING					
45	16 A 3-pin single switch socket with coverplate	EA				
46	16 A 3-pin single dedicated switch socket with coverplate	EA				
47	Telephone outlet points for Power Skirting	EA				
48	Data outlet points for Power Skirting	EA				
49	400V, 32A 5pin industrial socket outlet	EA				
	POWER POLE					
50	Supply and installation of a power pole, complete with 1 x normal socket outlet, 1 x dedicated socket outlet, 1 x data point and 1 x telephone point	EA				
	WIRING CHANNELS					
	Supply and installation of wiring channels installed complete with hangers, domelid, beam clamps, coverplates and caps, elbows complete with earth connections and cut of holes for the conduit and light installation					
51	300mm x 19mm heavy duty cable tray	m				
52	41mm x 41mm galvanized wiring channel	m				
53	127 x 76mm white epoxy coated wiring channel	m				
	GENERAL DISTRIBUTION BOARDS AND CONTROL PANEL					
	Carried Forward			R		

	Brought Forward			R		
	The supply installation testing and handing over of all distribution boards and control panels for the supplies to general lighting and power circuits within the building, including for all equipment as specified, but excluding for items measured elsewhere					
54	DB - 1 complete with circuit breakers as per single line diagram	EA	1			
55	DB - 2 complete with circuit breakers as per single line diagram	EA	1			
56	DB - 3 complete with circuit breakers as per single line diagram	EA	1			
57	DB - 1/1 complete with circuit breakers as per single line diagram	EA	1			
58	DB - 1/2 complete with circuit breakers as per single line diagram	EA	1			
59	DB - 1/3 complete with circuit breakers as per single line diagram	EA	1			
60	DB - 1/4 complete with circuit breakers as per single line diagram	EA	1			
61	DB - 1/5 complete with circuit breakers as per single line diagram	EA	1			
62	DB - 1/6 complete with circuit breakers as per single line diagram	EA	1			
63	DB - 2/1 complete with circuit breakers as per single line diagram	EA	1			
64	DB - 2/2 complete with circuit breakers as per single line diagram	EA	1			
	Carried Forward			R		

				R	
	Brought Forward				
65	DB - 2/3 complete with circuit breakers as per single line diagram	EA	1		
66	DB - 2/4 complete with circuit breakers as per single line diagram	EA	1		
67	DB - 2/5 complete with circuit breakers as per single line diagram	EA	1		
68	DB - 3/1 complete with circuit breakers as per single line diagram	EA	1		
69	DB - 3/2 complete with circuit breakers as per single line diagram	EA	1		
70	DB - 3/3 complete with circuit breakers as per single line diagram	EA	1		
71	DB - 3/4 complete with circuit breakers as per single line diagram	EA	1		
72	DB - 3/5 complete with circuit breakers as per single line diagram	EA	1		
73	DB - 3/6 complete with circuit breakers as per single line diagram	EA	1		
	ELECTRONICS				
74	Provisional Amount for CCTV installation & Access Control		Item		100 000,00
75	Provisional Amount for IT Installation		Item		100 000,00
76	PC Amount for Unforseen		Item		100 000,00
	Carried Forward			R	

	Brought Forward			R		
	COMMISSIONING					
77	Tenderers to allow for all the commissioning requirements, including testing, attendance, as-built drawings, manuals, for the cable work, DBs, power points and lighting points as set out in the specification and SANS 01042, prior to the installation being taken over as complete	EA	1			
	GENERAL ITEMS					
	Any additional items that the tenderer deems necessary for the successful and total completion of the portion of the work required for this Bill (specify):					
78	Dismantling and removal of existing electrical installation			SUM		
	Carried Forward to Summary of Section No. 4			R		

Section No. 4
Bill No. 6
Staff Accomadation
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO. 7					
	WASTE & STORES					
	Note: Electrical installation, including conduits, etc. for other services, but excluding all items covered elsewhere in the Bills of Quantities					
	CONDUIT					
	Rigid conduit, including all couplings, plugs, fixing saddles and screws, cutting bending, fixing, cleaning for wiring purposes					
1	20mm steel cast in concrete or brickwork	m	50			
2	25mm steel cast in concrete or brickwork	m				
	DRAW BOXES					
	Supply and installation of pressed steel hot dipped galvanized boxes for sockets, draw boxes, etc. flush mounted in brickwork or cast into concrete connected to the conduit installation as specified					
3	100 x 50 x 50mm boxes	EA	3			
4	100 x 100 x 50mm boxes	EA				
5	100 x 50 x 50mm surface boxes	EA				
6	100 x 100 x 50mm surface boxes	EA				
7	1 to 4 way draw boxes 65mm dia. installation in brickwork or open ceilings complete with box lid fixing screws	EA	10			
8	Round 65mm dia. x 50mm deep for 20mm conduit	EA				
9	Round 65mm dia. x 50mm deep for 25mm conduit	EA				
	Carried Forward			R		

	Brought Forward			R	
	SWITCH SOCKETS FOR FLUSH				
	Supply and installation of sockets installed in flush and galvanized draw boxes, complete with socket fixing screws				
10	16 A 3-pin double switch socket with coverplate	EA			
11	16 A 3-pin single switch socket with coverplate	EA			
12	16 A 3-pin single switch socket with a double 2-pin switch socket with coverplate	EA			
13	16 A 3-pin single switch socket with coverplate and water proof box	EA			
14	5 A 3-pin unswitched socket outlet	EA			
	ISOLATING SWITCHES FOR SURFACE INSTALLATION				
	Supply and installation of the surface mounted isolating switches for single and three phase power points, complete with 100 x 100 x 50mm galvanized draw box, complete with coverplate and fixing screws				
15	60 A double pole isolating switch with coverplate	EA			
16	30 A single phase isolating switch with coverplate	EA			
17	30 A three phase isolating switch with coverplate	EA			
	LIGHT SWITCHES				
	Supply and installation of the light switches installed in 100 x 50 x 50mm deep galvanized draw box, complete with fixing screws and coverplate				
18	16 A single lever one-way with coverplate	EA			
	Carried Forward			R	

				R		
	Brought Forward					
19	16 A single lever one-way outdoor with coverplate	EA	3			
20	16 A double lever bolt one-way with coverplate	EA				
21	16 A single lever one-way with dimmer control	EA				
22	16 A ceiling mount motion sensor	EA				
23	16 A photocell in an empty bulk head luminaire	EA	2			
	CONDUCTORS					
	PVC insulated stranded copper conductors for electrical circuits installed in conduit, power skirting, etc. grouped and connected to equipment (All wasted cut-offs must be included in the tender price					
	1,5mm2					
24	Red	m				
25	Black	m				
26	Green and Yellow/ BCEW	m				
	2,5mm2					
27	Red	m	100			
28	Black	m	100			
29	Green and Yellow/ BCEW	m	200			
	4mm2					
30	Red	m	100			
31	Black	m	100			
32	Green and Yellow/ BCEW	m				
	Carried Forward			R		

				R		
	Brought Forward					
	LIGHT FITTINGS					
	Supply and installation of the following light fittings, including lamps, wiring, connections and earthing					
33	Type B1	EA				
34	Type B2	EA	4			
35	Type F1	EA	4			
36	Type F2	EA				
37	Type F2E	EA				
	POWER SKIRTING					
	Supply and installation of power skirting installed on the wall of the building structure, complete with socket outlet cover, coverplates, earth connections and cut out holes for the socket installation					
38	2-Channel 2-compartment power skirting with coverplates, joints, elbows, end caps and fixing to structure	m				
39	Internal elbows	EA				**Rate Only**
40	External elbows	EA				**Rate Only**
41	End caps	EA				**Rate Only**
42	Conduit entry along the run	EA				**Rate Only**
	SWITCH SOCKETS FOR POWER SKIRTING					
43	16 A 3-pin single switch socket with coverplate	EA				
44	16 A 3-pin single dedicated switch socket with coverplate	EA				
	Carried Forward			R		

	Brought Forward			R		
45	Telephone outlet points for Power Skirting	EA				
46	Data outlet points for Power Skirting	EA				
47	400V, 32A 5pin industrial socket outlet	EA				
	POWER POLE					
48	Supply and installation of a power pole, complete with 1 x normal socket outlet, 1 x dedicated socket outlet, 1 x data point and 1 x telephone point	EA				
	WIRING CHANNELS					
	Supply and installation of wiring channels installed complete with hangers, domelid, beam clamps, coverplates and caps, elbows complete with earth connections and cut of holes for the conduit and light installation					
49	300mm heavy duty cable tray	m				
50	300mm wire mesh for IT	m				
51	300mm wire mesh for Nurse Call	m				
52	P8000 wiring channel	m				
	GENERAL DISTRIBUTION BOARDS AND CONTROL PANEL					
	The supply installation testing and handing over of all distribution boards and control panels for the supplies to general lighting and power circuits within the building, including for all equipment as specified, but excluding for items measured elsewhere					
53	DB - Stores complete with circuit breakers as per single line diagram	EA	1			
	Carried Forward			R		

	Brought Forward			R	
	ELECTRONICS				
54	Nurse Call Installation as per drawing			SUM	
55	Provisional Amount for CCTV installation & Access Control		Item		
56	Provisional Amount for IT Installation			SUM	
	COMMISSIONING				
57	Tenderers to allow for all the commissioning requirements, including testing, attendance, as-built drawings, manuals, for the cable work, DBs, power points and lighting points as set out in the specification and SANS 01042, prior to the installation being taken over as complete	EA	1		
	LIGHTNING PROTECTION				
58	Total cost for the provision of lightning points as indicated on the layout drawings and specific drawings including testing and issuance of certifcates thereof. Contractors shall allow for the installation and tesing to be performed by approved speciallists.			SUM	
59	PC Amount for Unforseen		Item		5 000,00
	GENERAL ITEMS				
	Any additional items that the tenderer deems necessary for the successful and total completion of the portion of the work required for this Bill (specify):				
60	Dismantling and removal of existing electrical installation			SUM	
	Carried Forward to Summary of Section No. 4			R	

Item No			Quantity	Rate	Amount	
	BILL NO. 9					
	LAUNDRY					
	Note: Electrical installation, including conduits, etc. for other services, but excluding all items covered elsewhere in the Bills of Quantities					
	CONDUIT					
	Rigid conduit, including all couplings, plugs, fixing saddles and screws, cutting bending, fixing, cleaning for wiring purposes					
1	20mm steel cast in concrete or brickwork	m	100			
2	25mm steel cast in concrete or brickwork	m	50			
	DRAW BOXES					
	Supply and installation of pressed steel hot dipped galvanized boxes for sockets, draw boxes, etc. flush mounted in brickwork or cast into concrete connected to the conduit installation as specified					
3	100 x 50 x 50mm boxes	EA	10			
4	100 x 100 x 50mm boxes	EA	10			
5	100 x 50 x 50mm surface boxes	EA				
6	100 x 100 x 50mm surface boxes	EA				
7	1 to 4 way draw boxes 65mm dia. installation in brickwork or open ceilings complete with box lid fixing screws	EA	60			
8	Round 65mm dia. x 50mm deep for 20mm conduit	EA				
9	Round 65mm dia. x 50mm deep for 25mm conduit	EA				
	Carried Forward			R		

				R		
	Brought Forward					
	SWITCH SOCKETS FOR FLUSH					
	Supply and installation of sockets installed in flush and galvanized draw boxes, complete with socket fixing screws					
10	16 A 3-pin double switch socket with coverplate	EA	5			
11	16 A 3-pin single switch socket with coverplate	EA	5			
12	16 A 3-pin single switch socket with a double 2-pin switch socket with coverplate	EA	5			
13	16 A 3-pin single switch socket with coverplate and water proof box	EA				
14	5 A 3-pin unswitched socket outlet	EA	20			
	ISOLATING SWITCHES FOR SURFACE INSTALLATION					
	Supply and installation of the surface mounted isolating switches for single and three phase power points, complete with 100 x 100 x 50mm galvanized draw box, complete with coverplate and fixing screws					
15	60 A double pole isolating switch with coverplate	EA				
16	30 A single phase isolating switch with coverplate	EA	5			
17	30 A three phase isolating switch with coverplate	EA	5			
	LIGHT SWITCHES					
	Supply and installation of the light switches installed in 100 x 50 x 50mm deep galvanized draw box, complete with fixing screws and coverplate					
18	16 A single lever one-way with coverplate	EA	6			
	Carried Forward			R		

				R		
	Brought Forward					
19	16 A single lever two-way with coverplate	EA				
20	16 A double lever bolt one-way with coverplate	EA				
21	16 A single lever one-way with dimmer control	EA				
22	16 A ceiling mount motion sensor	EA				
23	16 A photocell in an empty bulk head luminaire	EA	1			
	CONDUCTORS					
	PVC insulated stranded copper conductors for electrical circuits installed in conduit, power skirting, etc. grouped and connected to equipment (All wasted cut-offs must be included in the tender price					
	1,5mm2					
24	Red	m				
25	Black	m				
26	Green and Yellow/ BCEW	m				
	2,5mm2					
27	Red	m	400			
28	Black	m	400			
29	Green and Yellow/ BCEW	m	800			
	4mm2					
30	Red	m	400			
31	Black	m	400			
32	Green and Yellow/ BCEW	m				
	Carried Forward			R		

	Brought Forward			R	
	LIGHT FITTINGS				
	Supply and installation of the following light fittings, including lamps, wiring, connections and earthing				
33	Type B1	EA	3		
34	Type B2	EA	10		
35	Type F2	EA	2		
36	Type F2E	EA	2		
37	Type F3	EA	2		
38	Type F3E	EA	2		
39	Type F4	EA	6		
40	Type F4E	EA	6		
41	Type E	EA			
	POWER SKIRTING				
	Supply and installation of power skirting installed on the wall of the building structure, complete with socket outlet cover, coverplates, earth connections and cut out holes for the socket installation				
42	2-Channel 2-compartment power skirting with coverplates, joints, elbows, end caps and fixing to structure	m	30		
43	Internal elbows	EA			**Rate Only**
44	External elbows	EA			**Rate Only**
45	End caps	EA			**Rate Only**
	Carried Forward			R	

				R	
	Brought Forward				
46	Conduit entry along the run	EA			**Rate Only**
	SWITCH SOCKETS FOR POWER SKIRTING				
47	16 A 3-pin single switch socket with coverplate	EA	6		
48	16 A 3-pin single dedicated switch socket with coverplate	EA	6		
49	Telephone outlet points for Power Skirting	EA	6		
50	Data outlet points for Power Skirting	EA	6		
51	400V, 32A 5pin industrial socket outlet	EA			
	POWER POLE				
52	Supply and installation of a power pole, complete with 1 x normal socket outlet, 1 x dedicated socket outlet, 1 x data point and 1 x telephone point	EA			
	WIRING CHANNELS				
	Supply and installation of wiring channels installed complete with hangers, domelid, beam clamps, coverplates and caps, elbows complete with earth connections and cut of holes for the conduit and light installation				
53	300mm heavy duty cable tray	m	15		
54	300mm wire mesh for IT	m			
55	300mm wire mesh for Nurse Call	m			
56	P8000 wiring channel	m			
	GENERAL DISTRIBUTION BOARDS AND CONTROL PANEL				
	Carried Forward			R	

	Brought Forward			R		
	The supply installation testing and handing over of all distribution boards and control panels for the supplies to general lighting and power circuits within the building, including for all equipment as specified, but excluding for items measured elsewhere					
57	DB - Laundry complete with circuit breakers as per single line diagram	EA	1			
	ELECTRONICS					
58	Nurse Call Installation as per drawing			SUM		
59	Provisional Amount for CCTV installation & Access Control		Item		30 000,00	
60	Provisional Amount for IT Installation			SUM		
	COMMISSIONING					
61	Tenderers to allow for all the commissioning requirements, including testing, attendance, as-built drawings, manuals, for the cable work, DBs, power points and lighting points as set out in the specification and SANS 01042, prior to the installation being taken over as complete	EA	1			
	LIGHTNING PROTECTION					
62	Total cost for the provision of lightning points as indicated on the layout drawings and specific drawings including testing and issuance of certifcates thereof. Contractors shall allow for the installation and tesing to be performed by approved speciallists.			SUM		
63	PC Amount for Unforseen			SUM		
	Carried Forward			R		

	Brought Forward		R		
	GENERAL ITEMS				
	Any additional items that the tenderer deems necessary for the successful and total completion of the portion of the work required for this Bill (specify):				
64	Dismantling and removal of existing electrical installation		SUM		
	Carried Forward to Summary of Section No. 4		R		

Section No. 4
Bill No. 8
Laundry
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL 10					
	SOLAR PHOTOVOLTAIC INSTALLATIONS					
	MODULES					
1	Supply and install solar pv modules complete as per specification and drawing including all brackets and items necessary for complete working installation.	No	180			
2	550Wp Canadian Solar Panels 1200w duo optimizer	No	150			
	MOUNTING STRUCTURES					
	Supply and install Mounting structures with brackets and all items required as per specification complete.					
3	Solar 550 watt 2 Row Solar Panels Stand for Solar	m	100			
4	P2000 module mounting rails	m	100			
5	Araymond power snap antitheft brackets	No	320			
6	Earthing and bonding of all metal structures to obtain 1ohm or less		Item			
	INVERTERS					
	Supply and install and comission the following inverters complete to be in working order					
7	50kWp Solar Edge three phase grid tie PV inverter with Isolator	No	2			
	COMBINER BOXES					
	Carried Forward			R		

	Brought Forward			R		
	Supply and install the following cominer boxes complete to be in working order					
8	8way combiner box complete with the following equipment 100A 2P 1000V DC isolator 8 x 20A 1000V DC fuses gPV + Holders Type 1 1500V DC Surge Arresters Dehncombo PV All busbars and including the DB Board IP 65	No	2			
	MONITORING					
	Supply and install and comission the accosiated monitoring systems for above measured inverters and systems to be to be operational. Engineer to approve before ordering.					
9	Solar Edge RS485 PV energy meter complete with network Wifi connectivity and interconnected to the inverter via comms RS 485 wiring		Item			
	DC CABLES					
	Supply and install the following cables in trenches, sleeves and cable trays and deliver to site. (excavations, sleeves, cable trays measured elsewhere).					
10	DC solar cable 16mm² Cu double isolated multistrand single core	m	540			
11	DC solar cable 25mm² Cu double isolated multistrand single core	m	350			
	Supply and install the following cable terminations complete with lugs, shrouds, glands, earthing tags, colour coding heat shrink sleeve etc					
12	DC solar cable 16mm² Cu double isolated multistrand single core	No	25			
	Carried Forward			R		

	Brought Forward			R		
13	DC solar cable 25mm² Cu double isolated multistrand single core	No	8			
	AC CABLES					
	Supply and install the following 600/1000V PVC insulated PVC bedded SWA PVC sheathed stranded copper cables in trenches, sleeves and cable trays and deliver to site. (excavations, sleeves, cable trays and terminations measured elsewhere).					
14	25mm² 4 CORE CU	m	60			
15	25mm² 1 CORE CU EARTH WIRE	m	60			
	Terminations:					
	Cable termination complete, including glands, shrouds, lugs etc. fully supplied, installed and connected.					
16	25mm² 4 CORE CU	No	8			
17	25mm² 1 CORE CU EARTH WIRE	No	8			
	TRUNKING AND CABLE TRAYS					
	Galvanised steel wiring channel complete with cover plates, fixing to structure or fixed to walls or concrete surfaces to to structure or fixed to walls or concrete surfaces to include suspension rods etc to make complete					
18	Steel trunking 40 x 40	m	650			
19	Steel trunking 75 x 75	m	50			
20	150mm wide heavy duty return flange galvanised cable tray complete with 200mm sections of P2000 trunking fixing brackets fixed to wall spaced at not more than 1m c/c	m	100			
	Carried Forward			R		

	Brought Forward			R		
	DC PROTECTION					
	Supply and install DC disconnect switch in distribution board as per specification drawing including all items necessary for complete installation drawing including all items necessary for complete installation					
21	100A 2 pole DC Disconnect Isolator with extension handle	No	4			
22	40kA 1500Vdc PV Dehncombo surge arresters	No	4			
23	DC isolator distribution board 1,6mm 3cr12 IP 65 colour white complete with back tray, architrave, mounting plates and rails, busbars, interconnections, square key quarter turn locks etc.	No	4			
	AC PROTECTION					
	Supply and install the following new 1.6mm 3CR12 steel distribution boards complete with sheet metal back tray, front panel, face plate with panel key catch at the tops, doors with metal-t hinges, padlockable lever lock handles, equipment rails, terminations plates, name plate holders on face plate, busbars, non removeable laminated legend card and prepare for and including all internal wiring for the equipment listed below plus 30% spare space. Colours of the different sections must be: Normal-white, Emergency-red, Uninteruptable Power-violet. Shop drawings to be approved before ordering.					
	The board must be priced seperately from the equipment listed below, if tenderers price the boards as only one item, tenderers will not be evaluated.					
24	Surface mounted distribution board complete with equipment below: circuit breakers and equipment to be of the CBI type	No	1			
	Carried Forward			R		

	Brought Forward			R	
25	80A 3 pole 15kA MCB with extension rotary handle	No	2		
26	150A 3 pole 15kA MCCB with extension rotary handle	No	1		
27	Surface mounted 80A 3Pole 6kA MCB with extension handle complete mounted in IP 65 powdercoated white 3CR12 surface mounted box complete with hinged door with panel key square quarter turn locks etc.	No	2		
	GENERAL, TESTING AND COMMISSIONING				
	The contractor to supply all equipment for carrying out testing and commissioing.				
28	Complete inspection and testing of PV plant and LV distribution boards. Supply COC for each LV distribution board	No	1		
29	Supply all manuals and certification of products to engineer	No	1		
30	Coating of PV panels with approved protective coating as per specifications		Item		
31	Provisional amount of R 30 000,00 for complete earth electrode testing, supply and installation			SUM	
	LIGHTNING PROTECTION				
	Pricing must make allowance for the complete Lightning Protection System to the buildings including the required soil resistivity survey to be carried out on site by a specialist, and the issuing of the final design of the earthing system.				
	The Contractor shall ensure that the general bonding of the buildings electrical installation is carried out to Clause 6.13 of SANS 10147 'Bonding Lightning Protection System to Structures'				
	Carried Forward			R	

	Brought Forward			R		
	Where applicable all steel roof sheeting to the structure shall be suitably earthed to the special earth systems					
	The installation of this special system shall comply fully with the listed specifications SANS 10313 as amended					
	Grade "A" type earth electrodes (earth spikes of at least 1,5m in length) shall be driven into the ground as shown on the drawings, and where required					
	The earth electrode shall be installed at least 600mm from the building's perimeter and shall clear all aprons and water channels and driven into the ground to at least 600mm below the adjacent finished ground level					
	In each instance earth spikes must be interconnected by means of approved earth spike clamps and 50mm² insulated copper earth conductors to a height of 200mm AGL, where it is joined					
32	Carry out the required earth resistivity tests / surveys on site, final design for the proposed earthing system, and risk assessment (All to be submitted to engineer for approval before installation commences)		Item			
33	1,5m 16mm dia. SABS approved copper earth rod driven into the ground 600mm below ground level	No	50			
34	50mm² Insulated copper earth conductor from earth electrode to metal structures(yellow green)	m	100			
35	Complete termination arrangement of 50mm² insulated copper earth conductor to earth electrode with SABS approved earth rod clamp	No	50			
36	Complete termination arrangement of 50mm² insulated copper earth conductor to the steel structure complete with 50 x 8mm bi metal lugs fixed with m8 self tapping screws	No	50			
37	8mm Round Aluminium conducter finials (1000mm)	No	50			
	Carried Forward			R		

	Brought Forward			R		
38	Complete termination of 8mm round aluminium finials to structure complete with 2 x connecting clamps complete and fixed to steel structure with 2 x m6 self tapping screws each clamp.	No	50			
39	Allow for the testing of the completed system and the issuing of a SANS prescribed LPS compliance certificate/test report.		Item			
40	Lightning protection sundries, as required		Item			
	PV INVERTER BUILDING					
41	Pricing must make allowance for the complete Construction of the building including the required ground clearing, excavations, backfilling and compactions, concrete and formwork, brickworks with brickforce, building in doors and windows, plastering and painting, roof construction complete with roof sheets and fixing, ceiling works, installation of doors and windows, floor coverings and electrical and mechanical works. PV Inverter building complete	m2	10			
	Carried Forward to Summary of Section No. 4			R		

Section No. 4
Bill No. 9
Solar
TENDER BILLS OF QUANTITIES

SECTION SUMMARY - Electrical Installation

Bill No		Page No		Amount
1	Preliminaries	134		
2	LV Reticulation, Area Lighting and Lightning Protection	141		
3	EMS	148		
4	Waiting Area	155		
5	Guard House	162		
6	Staff Accomadation	170		
7	Waste & Stores	176		
8	Laundry	183		
9	Solar	190		
	Carried to Final Summary		R	

Section No. 4
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	PRELIMINARIES				
1	Technical Submissions		SUM		
2	Workshop Drawings		SUM		
3	Transport, Rigging and Hoisting		SUM		
4	Accommodation		SUM		
5	Scaffolding		SUM		
6	Compliance With Health and Safety Regulations		SUM		
7	User Client Training		SUM		
8	Operating & Maintenance Manuals and As Built (Hard & Soft Copies)		SUM		
9	Testing and Commissioning		SUM		
	Carried Forward to Summary of Section No. 5		R		

Section No. 5
Bill No. 1
Preliminaries
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	AIR CONDITIONING					
	Supply, installation, testing and commissioning of air-conditioning systems complete with fittings and fixtures, as specified and shown on the drawing. All units shall be IP addressable ready for BMS connection by others.					
	SPLIT SYSTEMS					
	MWU-01					
1	2.6 kW Cooling Capacity, Midwall Unit	No	7			
2	Refrigerant piping - Liquid	m	105			
3	Refrigerant piping - Gas	m	105			
4	Drain piping ID (Ø 25mm)	m	70			
	DSU-01					
5	18 kW Cooling Capacity, Ducted Split Unit, complte with ducting, fittings and Accessories.	No	1			
6	Wired Controller	No	1			
7	Chord for Wired Controller	m	5			
8	Interface Adapter for Wired Controller	No	1			
9	Refrigerant piping - Liquid	m	15			
10	Refrigerant piping - Gas	m	15			
11	Drain piping ID (Ø 25mm)	m	10			
	Carried Forward			R		

				R		
	Brought Forward					
	RFCSU-01					
12	3.6 kW Cooling Capacity, Round Flow Cassette Split Unit	No	1			
13	Wired Controller	No	1			
14	Chord for Wired Controller	m	5			
15	Interface Adapter for Wired Controller	No	1			
16	Refrigerant piping - Liquid	m	15			
17	Refrigerant piping - Gas	m	15			
18	Drain piping ID (Ø 25mm)	m	10			
	VRF SYSTEMS					
	Supply and install Floor Plan VRF heat recovery outdoor units complete with fittings and fixtures, avm and additional topup 23.7 kg (R410a) refrigerant gas for commisioning as specified and shown on the drawing. All units shall be IP addressable ready for BMS connection by others.					
	OUTDOOR UNITS					
	SYS-01-ODU-01					
19	Nomial Cooling Capacity of 73.5kW , 82.5 kW Nomial Heating Capacity. Complete with tico pads. (combination unit)	Sets	1,0			
	SYS-02-ODU-01					
20	Nomial Cooling Capacity of 55.9kW , 62.5 kW Nomial Heating Capacity. Complete with tico pads. (combination unit)	Sets	1,0			
	Carried Forward			R		

	Brought Forward			R		
	SYS-03-ODU-01					
21	Nomial Cooling Capacity of 50.4kW , 56.5 kW Nomial Heating Capacity. Complete with tico pads. (combination unit)	Sets	1,0			
	SYS-04-ODU-01					
22	Nomial Cooling Capacity of 55.9kW , 62.5 kW Nomial Heating Capacity. Complete with tico pads. (combination unit)	Sets	1,0			
	SYS-05-ODU-01					
23	Nomial Cooling Capacity of 55.9kW , 62.5 kW Nomial Heating Capacity. Complete with tico pads. (combination unit)	Sets	1,0			
	HR/BS BOXES					
	SYS-01-HR-01					
24	10 Port HR Box	No	1			
	SYS-01-HR-02					
25	8 Port Box	No	1			
	SYS-02-HR-01					
26	8 Port Box	No	1			
	SYS-02-HR-02					
27	4 Port Box	No	1			
	SYS-03-HR-01					
28	4 Port Box	No	1			
	Carried Forward			R		

				R		
	Brought Forward					
	SYS-04-HR-01					
29	6 Port Box	No	1			
	SYS-05-HR-01					
30	8 Port Box	No	1			
	SYS-05-HR-02					
31	4 Port Box	No	1			
	INDOOR UNITS					
	Supply, delivery, installation, commissioning and testing of Air-Conditioning Indoor unit (VRF, Inverter, R410) complete with insulated refrigerant piping, condensate drains, trunking, electric wiring and connection, remote controls and top-up refrigerant					
	VRF-MWU-00					
32	2.2 kW Cooling Capacity, Midwall Unit	No	1			
33	Wired Controller	No	1			
34	Chord for Wired Controller	m	5			
35	Interface Adapter for Wired Controller	No	1			
36	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	15			
37	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	15			
38	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-MWU-01					
39	2.8 kW Cooling Capacity, VRF Midwall Unit	No	7			
	Carried Forward			R		

				R		
	Brought Forward					
40	Wired Controller	No	7			
41	Chord for Wired Controller	m	35			
42	Interface Adapter for Wired Controller	No	7			
43	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	105			
44	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	105			
45	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-MWU-02					
46	3.6 kW Cooling Capacity, VRF Midwall Unit	No	10			
47	Wired Controller	No	10			
48	Chord for Wired Controller	m	50			
49	Interface Adapter for Wired Controller	No	10			
50	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	150			
51	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	150			
52	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-MWU-03					
53	4.5 kW Cooling Capacity, VRF Midwall Unit	No	6			
54	Wired Controller	No	6			
55	Chord for Wired Controller	m	30			
56	Interface Adapter for Wired Controller	No	6			
57	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	90			
	Carried Forward			R		

	Brought Forward			R		
58	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	90			
59	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-CCU-01					
60	1.7 kW Cooling Capacity, VRF One way cassete unit	No	4			
61	Wired Controller	No	4			
62	Chord for Wired Controller	m	20			
63	Interface Adapter for Wired Controller	No	4			
64	Cassette Panel Cover	No	4			
65	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	60			
66	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	60			
67	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-CCU-02					
68	2.8 kW Cooling Capacity, VRF One way cassete unit	No	4			
69	Wired Controller	No	4			
70	Chord for Wired Controller	m	20			
71	Interface Adapter for Wired Controller	No	4			
72	Cassette Panel Cover	No	4			
73	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	60			
74	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	60			
75	Drain piping - ID (Ø25), Connecting to Main	m	5			
	Carried Forward			R		

				R		
	Brought Forward					
	VRF-CCU-03					
76	3.6 kW Cooling Capacity, VRF One way cassete unit	No	2			
77	Wired Controller	No	2			
78	Chord for Wired Controller	m	10			
79	Interface Adapter for Wired Controller	No	2			
80	Cassette Panel Cover	No	2			
81	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	30			
82	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	30			
83	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-CCU-04					
84	4.5 kW Cooling Capacity, VRF One way cassete unit	No	1			
85	Wired Controller	No	1			
86	Chord for Wired Controller	m	5			
87	Interface Adapter for Wired Controller	No	1			
88	Cassette Panel Cover	No	1			
89	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	15			
90	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	15			
91	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-CCU-05					
92	5.6 kW Cooling Capacity, VRF One way cassete unit	No	1			
	Carried Forward			R		

				R		
	Brought Forward					
93	Wired Controller	No	1			
94	Chord for Wired Controller	m	5			
95	Interface Adapter for Wired Controller	No	1			
96	Cassette Panel Cover	No	1			
97	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	15			
98	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	15			
99	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-RFCSU-01					
100	4.5 kW Cooling Capacity, VRF Round Flow Cassette Split Unit	No	1			
101	Wired Controller	No	1			
102	Chord for Wired Controller	m	5			
103	Interface Adapter for Wired Controller	No	1			
104	Cassette Panel Cover	No	1			
105	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	15			
106	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	15			
107	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-RFCSU-02					
108	5.6 kW Cooling Capacity, VRF Round Flow Cassette Split Unit	No	1			
109	Wired Controller	No	1			
	Carried Forward			R		

				R		
	Brought Forward					
110	Chord for Wired Controller	m	5			
111	Interface Adapter for Wired Controller	No	1			
112	Cassette Panel Cover	No	1			
113	Refrigerant piping - Liquid (Ø 6.35) Flare connection	m	15			
114	Refrigerant piping - Gas (Ø 12.70) Flare Connection	m	15			
115	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-RFCSU-03					
116	7.1 kW Cooling Capacity, VRF Round Flow Cassette Split Unit	No	2			
117	Wired Controller	No	2			
118	Chord for Wired Controller	m	10			
119	Interface Adapter for Wired Controller	No	2			
120	Cassette Panel Cover	No	2			
121	Refrigerant piping - Liquid (Ø 9.50) Flare connection	m	30			
122	Refrigerant piping - Gas (Ø 15.90) Flare Connection	m	30			
123	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-RFCSU-04					
124	9 kW Cooling Capacity, VRF Round Flow Cassette Split Unit	No	4			
125	Wired Controller	No	4			
126	Chord for Wired Controller	m	20			
	Carried Forward			R		

				R		
	Brought Forward					
127	Interface Adapter for Wired Controller	No	4			
128	Cassette Panel Cover	No	4			
129	Refrigerant piping - Liquid (Ø 9.50) Flare connection	m	60			
130	Refrigerant piping - Gas (Ø 15.90) Flare Connection	m	60			
131	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-DSU-01					
132	9 kW Cooling Capacity, VRF Ducted Split Unit	No	3			
133	Wired Controller	No	3			
134	Chord for Wired Controller	m	15			
135	Interface Adapter for Wired Controller	No	3			
136	Refrigerant piping - Liquid (Ø 9.50) Flare connection	m	45			
137	Refrigerant piping - Gas (Ø 15.90) Flare Connection	m	45			
138	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-DSU-02					
139	11.2 kW Cooling Capacity, VRF Ducted Split Unit	No	1			
140	Wired Controller	No	1			
141	Chord for Wired Controller	m	5			
142	Interface Adapter for Wired Controller	No	1			
143	Refrigerant piping - Liquid (Ø 9.50) Flare connection	m	15			
144	Refrigerant piping - Gas (Ø 15.90) Flare Connection	m	15			
	Carried Forward			R		

				R		
	Brought Forward					
145	Drain piping - ID (Ø25), Connecting to Main	m	5			
	VRF-DSU-03					
146	18 kW Cooling Capacity, VRF Ducted Split Unit	No	4			
147	Wired Controller	No	4			
148	Chord for Wired Controller	m	20			
149	Interface Adapter for Wired Controller	No	4			
150	Refrigerant piping - Liquid (Ø 9.50) Flare connection	m	60			
151	Refrigerant piping - Gas (Ø 15.90) Flare Connection	m	60			
152	Drain piping - ID (Ø25), Connecting to Main	m	5			
	PIPING, FITTINGS AND ACCESSORIES					
	Supply and install externally insulated HD Copper Piping to SANS as specified and detailed on the drawings; including, bends, refnets,y-branches, reducers and fittings, with all accessories as required for a complete installation					
153	Refrigerant piping - (Ø 15.90) HD Copper	m	120			
154	Refrigerant piping - (Ø 19.05) HD Copper	m	250			
155	Refrigerant piping - (Ø 28.58) HD Copper	m	250			
156	Refrigerant piping - (Ø 34.93) HD Copper	m	250			
157	Refrigerant piping Insulation - (Ø 15.90)	m	120			
158	Refrigerant piping Insulation - (Ø 19.05)	m	250			
159	Refrigerant piping Insulation - (Ø 28.58)	m	250			
	Carried Forward			R		

	Brought Forward			R		
160	Refrigerant piping Insulation- (Ø 34.93)	m	250			
161	Fittings and Accessories (Elbows, Tees, Renets, Couplings and Reducers)			SUM		
162	Topup Refrigerant (R410A)	kg	44			
163	Brazing and pressure testing Nitrogen			SUM		
164	150mm Wide Cable tray Complete with fittings and accessories.	m	420			
165	100mmx100mm square Galvanised trunking	m	150			
	SUPPLY AIR INSULATED DUCTWOK					
	Supply and install externally insulated ductwork to SANS as specified and detailed on the drawings; including wall boxes, bends, flanges, transformation pieces, insulation,flexible connections, with all accessories as required for a complete installation					
	Externally insulated Spiral ductwork					
166	Ø150	m	35			
167	Ø200	m	50			
168	Ø250	m	50			
169	Ø300	m	75			
170	Ø450	m	75			
	Externally insulated Flexible ductwork					
171	Ø200 flexi ducting	m	40			
	Carried Forward			R		

	Brought Forward			R	
	Insulated Transformations/ Reducers				
172	Ø450 - Ø300mm Circular reducer	No	6		
173	Ø300 - Ø200 mm Circular reducer	No	4		
174	Ø250 - Ø150 mm Circular reducer	No	2		
	Fittings, Bends and Tees(90Deg. & 45Deg.)				
175	Ø400 90 Deg. Bend	No	6		
176	Ø250 90 Deg. Bend	No	4		
177	Ø200 90 Deg. Bend	No	55		
178	Ø150 90 Deg. Bend	No	4		
179	Ø200 Spigot	No	60		
180	Ø150 Spigot	No	4		
	Couplers and Suspension Rings/Hangers				
181	Couplers and Suspension Rings/Hangers			SUM	
	Stop Ends				
182	Ø 150 mm	No	1		
183	Ø 200 mm	No	4		
184	Ø 250 mm	No	1		
185	Ø 300 mm	No	4		
	Air Terminals				
	Carried Forward			R	

	Brought Forward			R		
	Supply and install supply linear air diffusers complete with all necessary fixtures and accessories as specified and shown on the drawings					
	SAD2					
186	Size: Ø 200, 600x600 mm CVV	No	54			
	SAD3					
187	Size: Ø 150, 600x600 mm CVV	No	4			
	Volume Control Dampers					
	Supply and install volume control dampers (butterfly type) complete with all necessary fixtures and accessories on all the diffusing points					
	VVD 2					
188	Size: Ø 150mm, butterfly type damper	No	10			
	VVD 3					
189	Size: Ø 200mm, butterfly type damper	No	54			
	RETURN AIR DUCT WORK					
	Supply and install return ductwork to SANS as specified and detailed on the drawings; Including bends, flanges, transformation pieces, with all accessories as required for a complete installation					
	Externally insulated Spiral ductwork					
190	Ø250	m	30			
191	Ø400	m	35			
	Carried Forward			R		

	Brought Forward			R		
	Fittings, Bends and Tees(90Deg. & 45Deg.)					
192	Ø400 90 Deg. Bend	No	5			
193	Ø250 90 Deg. Bend	No	3			
194	Ø200 90 Deg. Bend	No	1			
	Stop Ends					
195	Ø 200 mm	No	1			
196	Ø 250 mm	No	3			
197	Ø 400 mm	No	4			
	Couplers and Suspension Rings/Hangers					
198	Couplers and Suspension Rings/Hangers			SUM		
	Air Terminals					
	Supply and install return air Grilles complete with all necessary fixtures and accessories as specified and shown on the drawings					
	RAG-01					
199	Size: 600x1200mm, Ø300mm, single spigot, hinged type Return Air Grille complete with, plenum and filter box	No	14			
200	Sundries		Item			
	Carried Forward to Summary of Section No. 5			R		

Section No. 5
Bill No. 2
Air Conditioning
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	VENTILATION					
	Supply, delivery, installation and commissioning of ventilation systems complete with in lined attenuators, vibration isolation, transformations, supports, necessary fittings and electric terminations.					
	EXTRACTION SYSTEMS					
	EF-01					
1	Ø 100 mm, Axial In-line Extraction air fan of Air Flow : 45 L/s @ 65 Pa, c/w sound attenuators with filter box, and 150x150mm Weather Louver	No	1			
	EF-02					
2	Ø 150 mm, Axial In-line Extraction air fan of Air Flow : 53-83 L/s @ 80Pa c/w sound attenuators with filter box, and 200x200mm Weather Louver	No	2			
	EF-03					
3	Ø 200 mm, Axial In-line Extraction air fan Air Flow : 105-150 L/s @ 140 Pa c/w sound attenuators with filter box, and 250x250mm Weather Louver	No	7			
	EF-04					
4	Ø 250 mm, Axial In-line Extraction air fan Air Flow : 270 L/s @ 100Pa c/w sound attenuators with filter box, and 300x300mm Weather Louver	No	1			
	WEF-01					
5	Ø 300 mm Silent type Wall extraction fan of Air Flow: 45 L/s @ 60Pa c/w 350x350mm Weather Louver	No	8			
	Carried Forward			R		

				R		
	Brought Forward					
	WEF-02					
6	Ø 300 mm Silent type Wall extraction fan of Air Flow: 83 L/s @ 70Pa c/w 350x350mm Weather Louver	No	1			
	Duct-Work For Extraction System					
7	Ø100 Spiral ducting	m	100			
8	Ø150 Spiral ducting	m	130			
9	Ø200 Spiral ducting	m	15			
10	Ø250 Spiral ducting	m	15			
11	Ø100 Flexi Ducting	m	20			
12	Ø150 Flexi Ducting	m	10			
	Transformations and fittings for extraction systems					
13	Ø250-Ø200 Transition piece	No	4			
14	Ø200-Ø150 Transition Piece	No	4			
15	Ø200 Spigot	No	34			
	DISC VALVES					
	Supply and install extract air disc valves complete with all necessary fixtures and accessories as specified and shown on the drawings					
	DV 1					
16	Ø100mm neck Extract Air Disc Valves	No	34			
	Volume Control Dampers					
	Carried Forward			R		

	Brought Forward			R	
	Supply and install volume control dampers complete with all necessary fixtures and accessories on all the diffusing points				
	VCD 1				
17	Size: Ø100mm, Butterfly type dampers	No	44		
	Stop Ends				
18	Ø100 mm	No	5		
19	Ø150 mm	No	15		
20	Ø200 mm	No	5		
	Couplers and Suspension Rings/Hangers				
21	Couplers and Suspension Rings/Hangers			SUM	
	FRESH AIR SYSTEMS				
	FASF-01				
22	Ø 315 mm, Axial In-line Fresh Air Supply Fan of Air Flow : 360 L/s @ 300Pa c/w sound attenuators with filter box, and 350x350mm Weather Louver	No	1		
	FASF-02				
23	Ø 315 mm, Axial In-line Fresh Air Supply Fan of Air Flow : 400 L/s @ 255Pa c/w sound attenuators with filter box, and 350x350mm Weather Louver	No	1		
	FASF-03				
24	Ø 315 mm, Axial In-line Fresh Air Supply Fan of Air Flow : 450 L/s @ 75Pa c/w sound attenuators with filter box, and 350x350mm Weather Louver	No	1		
	Carried Forward			R	

	Brought Forward			R	
	FASF-04				
25	Ø 315 mm, Axial In-line Fresh Air Supply Fan of Air Flow : 470 L/s @ 105Pa c/w sound attenuators with filter box, and 350x350mm Weather Louver	No	1		
	FASF-05				
26	Fresh Air Supply Fan (Box Filter Unit Type) of Air Flow : 540 L/s @ 405Pa	No	1		
	Duct-Work For Fresh Air System				
27	Ø300 Spiral ducting	m	60		
28	Ø200 Spiral ducting	m	150		
29	Ø150 Spiral ducting	m	30		
30	Ø100 Spiral ducting	m	70		
	Bends and Tees(90deg and 45deg)				
31	Ø300 45 Deg. Bend	No	2		
32	Ø200 90 Deg. Bend	No	8		
33	Ø150 90 Deg. Bend	No	4		
	Couplers and Suspension Rings/Hangers				
34	Couplers and Suspension Rings/Hangers			SUM	
	Stop Ends				
35	Ø150 SE	No	8		
36	Ø200 SE	No	8		
	FRESH AIR SUPPLY DIFFUSERS				
	Carried Forward			R	

	Brought Forward			R	
	Supply and install supply linear air diffusers complete with all necessary fixtures and accessories as specified and shown on the drawings				
	SDV01				
37	Ø100 supply air Disc Valve with Ø100 neck,	No	44		
	DOOR GRILLES				
	Supply and install Aluminium Anodised door grilles as specified and shown on the drawings.				
	DG				
38	Size: 400 x 400mm Door Grilles	No	50		
	Volume Control Dampers				
	Supply and install volume control dampers complete with all necessary fixtures and accessories on all the diffusing points				
	VVD 1				
39	Size: 100mm diameter, Butterfly type dampers	No	54		
40	Sundries			SUM	
	Carried Forward to Summary of Section No. 5			R	

Section No. 5
Bill No. 3
Ventilation
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	FIRE PROTECTION					
	SITE WORKS					
	Supply, delivery, installation, commissioning and testing of Fire Protection Systems complete with connections and fittings in Accordance with SANS 10400 Part T and SANS 10400 Part W					
	Supply, delivery, installation, commissioning and testing of Fire Hydrants & Fire Hose Reels					
	FHR/FH					
1	Φ100 Two Port Booster with Pressure Guage	No	2			
2	Φ100mm Storz Hydrant – Φ100mm female BSP inlet & Φ100mm Storz outlet	No	1			
3	Φ65mm Outlet Outdoor Type Fire Hydrant	No	8			
4	Φ65mm, 30m MET Lay flat hose with coupling	No	5			
	NRV					
5	Φ100mm Non Return Valve	No	4			
	BV					
6	Φ100mm Buterfly valves	No	8			
7	Φ25mm Galvanised Steel (SABS 62) Piping for Connection of Fire Hose Reel	m	25			
8	Φ50mm Galvanised Steel (SABS 62) Piping for Connection of Fire Hose Reel	m	50			
9	Φ50mm Brass Non Return Valve (NRV)	No	8			
10	Φ50mm Brass Gate Valve (GV)	No	12			
	Carried Forward			R		

	Brought Forward			R	
11	Φ75mm Class 16 HDPE Piping Mains Connection	m	20		
12	Φ110mm Class 16 HDPE Piping Mains Connection	m	650		
13	Reducing Valves, Fittings and Accessories (Fire Hose Reels)			SUM	
14	Signal Red Enamel Paint	l	20		
15	144kL Pressed Steel Tank for fire water Storage Tank with 100-110mm Outlet, complete with accessories and fixtures - mounitng plinths, strainers, non-return valves, ball valves, and inlet and outlet manifolds	No	1		
16	End suction Vertical centrifugal pump type, fire pump complete with 21 L/sec at a total head of 35m including by pass arrangement for periodical testing of the working of the pump. The pump shall be provided with mechanical seals and outlet manifolds. The above mounted on a base, pre-piped, pre-wired and tested, complete with control panels.	No	2		
17	200 Litre Pressure Tank, Complete with fittings and accessories			SUM	
18	Jockey Pump: 2 L/s @ 36m Head Jockey Electrically driven	No	3		
	PUMP ROOM PUMPHOUSE PIPEWORK & ELECTRICAL CONNECTIONS				
19	All pumphouse pipework and necessary valves as per tender drawings and specification			SUM	
20	All electrical panels, cabling, safeties, switches, etc for electrical pump, jockey pump and any other equipment housed within the pump house (Domestiac)			SUM	
	Carried Forward			R	

				R		
	Brought Forward					
	Supply, delivery, installation, commissioning and testing of Fire Extinguishers complete with chevron board					
21	30m, 20mm diameter, non-swinging rotary pattern type Fire Hose Reels c/w Pressure Gauge	No	15			
22	5 kg Carbon Dioxide Portable Fire Extinguishers	No	4			
23	4.5 kg Dry Chemical Powder Portable Fire Extinguishers	No	36			
24	Fire Blanket	No	1			
	Supply, delivery and installation of Evacuation Signage and Fire Escape Doors					
	ES					
25	E1/E2, Size: 190mm x 380mm (h x w) Double sided photoluminescent sign framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	12			
26	E1, Size: 190mm x 380mm (h x w) Photoluminescent sign framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	15			
27	E2, Size: 190mm x 380mm (h x w) Photoluminescent sign framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	2			
28	E3, Size: 190mm x 380mm (h x w) Photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	32			
	Carried Forward			R		

				R		
	Brought Forward					
29	E10, Size: 190mm x 380mm (h x w) Photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	6			
	Supply, delivery and installation of Fire Equipment Signage					
30	F4, Size: 190mm x 570mm (h x w) Photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	8			
31	F16/F19, Size: 190mm x 380mm (h x w) Double sided photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	4			
32	F13, Size: 190mm x 380mm (h x w) Photoluminescent sign with back plate framed in natural anodised aluminium. Supply and install with steel wire and ceiling hook/onto mild steel bracket at 3.0 meters from finished floor level/mechanically mounted onto wall/fixture.	No	12			
	FIRE DETECTION					
33	4 Loop Addressable Fire Control Panel with Batteries	No	1			
34	Addressable Optical Smoke detector	No	118			
35	Addressable Void Smoke detector	No	20			
36	Addressable Heat detector	No	1			
37	Addressable Manual Call Point	No	16			
38	Addressable Strobe with Light	No	18			
	Carried Forward			R		

	Brought Forward			R		
39	2 Core PH 60 Cable, 1mm	m	2 500			
40	Galvernized Steel Conduit	m	500			
	Testing and Commissioning of all Fire Protection Installations					
41	Testing and Commissioning of all Fire Protection Installations			SUM		
	Carried Forward to Summary of Section No. 5			R		

Section No. 5
Bill No. 4
Fire Protection and Detection
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	MEDICAL GAS - PAX CHC					
	(IUSS COMPLIANT)					
	Supply, Installation, Testing and Commissioning of medical grade copper piping for O2, V and LP Air complete with colour coding, Fittings, Elbows, Tees, Unions, Couplings etc					
	PIPEWORK & FITTINGS OXYGEN (NEW LINE)					
	Supply, Installation, Testing and Commissioning, Including Colour Coding of Installed Oxygen piping, as per the statutory requirements, complete with pressure tests, the pipe sizes are as per below.					
1	Ø22mm	m	45			
2	Ø15mm	m	65			
3	Ø12mm	m	65			
	PIPEWORK & FITTINGS VACUUM (NEW LINE)					
	Supply, Installation, Testing and Commissioning, including Colour Coding of Installed Vacuum piping, as per the statutory requirements, complete with vacuum and pressure tests, the pipe sizes are as per below.					
4	Ø28mm	m	50			
	PIPEWORK & FITTINGS LP AIR (NEW LINE)					
	Carried Forward			R		

	Brought Forward			R		
	Supply, Installation, Testing and Commissioning, including Colour Coding of Installed LP Air piping, as per the statutory requirements, complete with vacuum and pressure tests, the pipe sizes are as per below.					
5	Ø22mm	m	60			
6	Ø15mm	m	65			
7	Ø12mm	m	65			
	ISOLATION VALVE CABINET					
	Supply and Install isolation valve cabinent for Oxygen, Vacuum, HP Air, LP Air Distribution inside the building					
8	Isolation Valve Cabinet (With Ø22mm valves for O2, V, HP Air and LP Air)	No	1			
	VACUUM TRAP					
9	Supply and install a vacuum trap installed in the position shown on the drawing	No	1			
	WARNING LIGHT ALARM PANEL					
10	Supply and install a warning light alarm repeater panel as specified	No	1			
	PVC TRUNKING (SLIMLINE)					
11	Install PVC trunking to run all droppers from the ceiling to the bedheaded trunking level, the trunking will accommodate the oxygen, medical air and vacuum pipework			SUM		
	Carried Forward			R		

	Brought Forward			R	
	BEDHEAD UNITS				
12	Vertical Beadhead Units, complete with Euro&stabdard plugs, complete with bed-head light and nurses call point.	No	7		
	TERMINAL UNITS				
	Medical gas specific terminal units to BS EN 737, labelled, including guide end piece valve filter, fixed on to the provided bed head trunking and final termination of pipes to the terminal units.				
13	Medical Air	No	9		
14	Vacuum	No	9		
15	Oxygen	No	9		
	TESTING AND COMISSIONING				
16	Allow Sum for pipe purging, purity tests, documentation, commissioning and testing inline with ISO 7396 - 1 : 2016 by a registered SAQCC Gas Practitioner			SUM	
	Carried Forward to Summary of Section No. 5			R	

Item No			Quantity	Rate	Amount	
	WET SERVICES					
	Supply, delivery, installation, commissioning and testing of New water supply and waste water drainage piping, complete connections and fittings.					
	SUPPLY AND INSTALLATION OF COPPER PIPES WITH FITTINGS CHASED INTO THE WALL					
1	15mm copper pipe	m	200			
2	22mm copper pipe	m	400			
3	SABS Approved CopperAdjustable Pressure Reducing Valves	No	8			
4	22mm Gate Valves	No	8			
5	15mm Angle Valve	No	85			
6	Accessories (Braided Connectors, Elbows, Tees and etc.)			SUM		
	Solar Geysers					
7	150L Indirect Solar Geyser	No	3			
8	250L Indirect Solar Geyser	No	1			
9	2.5m² Flat Plate Collector (SABS)	No	1			
10	Glycol 5L Bottle (food grade)	No	1			
11	Insul 7/8x1/2 Insuflex 22x13mmx1.83m	m	50			
12	Bottom Angle Bracket	No	1			
13	Consumables			SUM		
14	Parts Kit			SUM		
	Carried Forward			R		

Section No. 5
Bill No. 6
Wet Services
TENDER BILLS OF QUANTITIES

	Brought Forward		R		
	Testing and Commissioning				
15	Testing and Commissioning of all Installations		SUM		
	Carried Forward to Summary of Section No. 5		R		

Section No. 5
Bill No. 6
Wet Services
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	SECTION NO.5				
	SPECIALIST INSTALLATION AND PROVISIONAL SUMS				
	LAUNDRY EQUIPMENT				
	Supply and installation of laundry equipment:				
1	Provide the amount of 250,000.00 (Two Hundred and Fifty Thousand Rands) for Laundry Equipment.	Item		250 000,00	
	BUDGETARY ALLOWANCES				
2	PS: Budgetary allowance provision of R 881, 465.14 (Eight and Eighty One Thousand Rands Four Hundred and Sixty Five Fourteen Cents) for Unforeseen on Mechanical Installation	Item		881 465,14	
	Carried Forward to Summary of Section No. 5		R		
	Section No. 5 Bill No. 7 Provisional Sum **TENDER BILLS OF QUANTITIES**				

SECTION SUMMARY - Mechanical Installation

Bill No		Page No		Amount
1	Preliminaries	192		
2	Air Conditioning	207		
3	Ventilation	212		
4	Fire Protection and Detection	217		
5	Medical Gas	220		
6	Wet Services	222		
7	Provisional Sum	223		
	Carried to Final Summary		R	

Section No. 5
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	BILL NO. 1 **PLUMBING AND DRAINAGE (PROVISIONAL)** **SUPPLEMENTARY PREAMBLES** uPVC pipes and fittings Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed uPVC pressure pipes and fittings Pipes for water supply shall be of the class stated Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints Excavations No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks" Laying, backfilling, bedding, etc of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions				
	Carried Forward		R		

	Brought Forward			R	
	Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding <u>Flush pans</u> Flush pans shall have straight or side outlets and P or S traps as necessary				
	<u>SOIL DRAINAGE</u>				
	<u>Class 6 Corflo uPVC pipes:</u>				
1	110mm Pipes laid in and including trenches not exceeding 1m deep.	m	271		
2	160mm Pipes laid in and including trenches not exceeding 1m deep.	m	672		
	<u>Extra over class 6 Corflo uPVC pipes for fittings:</u>				
3	160mm Roding Eye	No	6		
	<u>Pre-cast concrete Gully</u>				
4	410 x 395 x 115mmmm Dished gulley	No	15		
	Carried Forward			R	

	Brought Forward			R		
	Sumps, catchpits, inspection chambers, etc (gratings and covers elsewhere)					
5	Precast concrete inspection chamber 1000mm internal diameter exceeding 1500mm but not exceeding 2000mm deep deep internally, complete with 150mm thick precast concrete cover slab with rebated opening for cover and frame, benching in bottom chamber and dished down to channels.	No	38			
	Gratings, covers, etc:					
6	560mm Diameter precast concrete manhole cover lid slab (Type 4A), all in accordance with SABS 558	No	38			
7	Lifting key for manhole cover	No	1			
	Pipe connections:					
8	Excavate to expose and break into side of existing manhole, break through side into manhole for new 160mm uPVC pipe connection, including changing benching, etc to accommodate new connection.	No	1			
	Encasing pipes in concrete:					
9	15MPa/19mm Unreinforced concrete encasing minimum 160mm thick all round 110mm pipes (pipes elsewhere measured) including any additional excavation, formwork, etc	m	5			
	Sundries:					
10	Testing soil drainage system.		Item			
	Carried to Final Summary			R		

Section No. 6
Bill No. 1
Soil Drainage
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	BILL NO.1 **PLUMBING AND DRAINAGE (PROVISIONAL)** **SUPPLEMENTARY PREAMBLES** Vitrified clay pipes etc Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid uPVC pipes and fittings Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed uPVC pressure pipes and fittings Pipes for water supply shall be of the class stated Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints **Carried Forward**		R		

	Brought Forward		R		
	Reducing fittings Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained Excavations No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks" Laying, backfilling, bedding, etc of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions				
	Carried Forward		R		

	Brought Forward			R		
	Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding					
	STORMWATER CHANNELS					
	Precast concrete channels					
1	200 x 90mm open ended channel section with 105 x 50mm deep segmental channel (Type D6)	m	267			
2	410 x 180mm open ended channel section with 230 x 100mm deep segmental channel (Type D8)	m	82			
3	590 x 175mm Open ended channel section with 510 x 125mm deep channel (Type C7)	m	76			
4	Extra channel type D6 for angles, intersections, ends, dressing into sides of catchpits, etc	No	34			
5	Extra channel type D8 for angles, intersections, ends, dressing into sides of catchpits, etc	No	10			
6	Extra channel type C7 for angles, intersections, ends, dressing into sides of catchpits, etc	No	2			
	Carried Forward			R		

	Brought Forward			R	
	STORMWATER DRAINAGE				
	Class 100D concrete pipes				
7	300mm Pipes laid in and including trenches not exceeding 1m deep	m	11		
	Sumps, catchpits, inspection chambers, etc (gratings and covers elsewhere)				
8	Storm Water Kerb Inlet, Type CP03	No	1		
	Sundries				
9	Testing drainage pipe system		Item		
	Carried to Final Summary			R	

Section No. 7
Bill No. 1
Stormwater Drainage
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO.1					
	PLUMBING AND DRAINAGE (PROVISIONAL)					
	WATER SUPPLIES					
1	Excavation not exceeding 2m deep for pipe trenches	m3	414			
2	Backfilling to pipe trenches compacted to 95% Mod AASHTO density	m3	414			
	High Density Polyethylene (HDPE) pipes					
3	63mm Diemeter Pipes laid in trenches (trenches elsewhere)	m	28			
4	75mm Diemeter Pipes laid in trenches (trenches elsewhere)	m	266			
5	110mm Diameter Pipes laid in trenches (trenches elsewhere)	m	120			
	High Density Polyethylene (HDPE) pipes for fittings					
6	75mm Bend	No	9			
7	110mm Bend	No	5			
8	75mm Tee	No	2			
9	75mm Reducing tee	No	2			
	Sundries					
10	Unreinforced concrete in thrust blocks at bends, tees, etc including necessary extra excavation, formwork, etc	m3	0,5			
11	Testing water pipe system		Item			
	Carried Forward			R		

	Brought Forward		R		
	THE FOLLOWING IN WATER STORAGE TANK				
12	Sectional galvanised steel water storage tank, 180 000 litre all including necessary fittings and piping, internal and external ladder, waterproofing membrane, installed on concrete plinth at ground level , including all fixing all to SANS 10287 and specifications as per Engineer drawing No. 34227S-201-05	Item			
13	Allow for offloading, storage and conveying of material to the location where the tank must be erected	Item			
14	Electric driven fire pump complete with electric motor, coupling and end suction centrifugal pump installed on concrete filled steel frame base, including all fixing, all to SANS 10287 and specifications. Capacity as specified in the technical specifications and hydraulically calculated by contractor	Item			
15	Electrical control panel to control and supply power to electric driven fire pump all fully designed, supplied, tested, installed and commissioned as described in SANS 10287 and to specifications	Item			
16	Electric driven jockey pump complete with electric motor, vertical multi sage centrifugal pump installed on concrete filled steel frame base, including all fixing, all to specifications. Capacity as specified in the technical specifications and hydraulically calculated by the contractor	Item			
17	Electrical control panel to control and supply power to electric driven jockey pump all fully designed, supplied, tested, installed and commissioned as described in SANS 10287 and to specifications	Item			
18	Connect with dia. 150mm galvanised pipe above ground to dia. 150mm HDPe connection supplied by civil contractor to tank.	Item			
19	Operating and maintenance manuals including shop and cutting list with drawings and all as-built drawings.	Item			
	Carried Forward		R		

	Brought Forward		R		
20	Allow for the guarantee of the complete installation for a period of 12 months post installation and commission.	Item			
21	Allow for the full maintenance of the installation for a period of 12 months	Item			
	<u>Testing</u>				
22	Sterilise reservoir	Item			
23	Test reservoir	Item			
	Carried Forward to Summary of Section No. 8		R		

Item No			Quantity	Rate	Amount	
	BILL NO.2					
	FIRE APPLIANCES ETC					
	PLUMBING AND DRAINAGE (PROVISIONAL)					
	Fire hydrant pedestals					
1	Unreinforced concrete hydrant pedestal 900mm high cast around vertical pipe with bottom 300mm below ground, 300 x 300mm square at base and tapering to octagonal shaped top 200 x 200mm overall including necessary excavation, formwork and two coats of paint to exposed surfaces	No	4			
	WATER SUPPLIES TO FIRE APPLIANCES					
2	Excavation not exceeding 2m deep for pipe trenches	m3	185			
3	Backfilling to pipe trenches compacted to 95% Mod AASHTO density	m3	185			
	High Density Polyethylene (HDPE) pipes for fittings					
4	110mm Pipes laid in trenches (trenches elsewhere)	m	34			
5	160mm Pipes laid in trenches (trenches elsewhere)	m	151			
	High Density Polyethylene (HDPE) pipes for fittings for fittings					
6	110mm Elbow	No	4			
7	160mm Bend	No	1			
	Sundries					
8	Unreinforced concrete in thrust blocks at bends, tees, etc including necessary extra excavation, formwork, etc	m3	0,1			
9	Testing fire water pipe system		Item			
	Carried Forward to Summary of Section No. 8			R		

SECTION SUMMARY - Civil Works - Domestic & Fire Water

Bill No		Page No		Amount
1	Domestic Water Supply	234		
2	Fire Water Supply	235		
	Carried to Final Summary		R	

Section No. 8
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO.1					
	THE FOLLOWING WORK IN COVERED WALKWAYS					
	COVERED WALKWAY CONSTRUCTION					
	Site clearance, etc.:					
1	Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m2	56			
	Excavation in all materials other than rock not exceeding 2m deep:					
2	Reduced levels under roads, paving, etc.	m3	33			
	Excavation in all materials other than rock not exceeding 2m deep:					
3	Holes.	m3	3			
	Risk of collapse of excavations other than bulk:					
4	Sides of trench and hole excavations not exceeding 1,5m deep.	m2	26			
	Extra over bulk excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):					
5	Surplus material from excavations and/or stock piles on site to to a dumping site to be found by the Contractor.	m3	28			
	Carried Forward			R		

	Brought Forward			R		
	Keeping excavations free of water:					
6	Keeping excavations free of water other than subterranean water.		Item			
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density:					
7	Pavings, etc.	m3	8			
	Filling with G6 approved material supplied and carted onto site by the Contractor, and spread, level, water, and compact in 150mm layers to density of at least 98% Mod. AASHTO maximum density:					
8	Under floors, pavings, etc.	m3	17			
	Filling with G7 approved material supplied and carted onto site by the Contractor, compacted to a density of at least 97% Mod. AASHTO maximum density:					
9	Under floors, etc.	m3	8			
	Coarse river sand filling compacted to 100% Mod. AASHTO maximum density:					
10	Under floors, etc.	m3	3			
	TESTS					
	Prescribed density tests on filling:					
11	"Modified AASHTO Density" test.	No	5			
	Approved brand of weed killer mixed and applied in accordance with manufacture's instruction:					
12	Under floors and pavings, etc. (Provisional).	m2	56			
	Carried Forward			R		

	Brought Forward			R		
	Compaction of surfaces:					
13	Rip and scarify top surface of existing formation to a depth of 150mm and compact to not less than 100% of Modified AASHTO density.	m2	56			
	25 Mpa/19mm Concrete:					
14	Surface beds to falls on waterproofing.	m3	7			
15	Bases	m3	3			
	Test blocks:					
16	Making and testing sets of three 150 x 150 x 150 mm concrete strength test cubes (Provisional).	Sets	0,6			
	Finishing top surfaces of concrete smooth with a wood float :					
17	Aprons to falls	m2	56			
	Smooth Formwork to Sides:					
18	Edges, risers, ends, and reveals not exceeding 300mm high.	m	65			
	Rough formwork to Sides:					
19	Bases (Provisional).	m2	26			
	Saw cut joints:					
20	40 x 3mm Saw cut joint in top of concrete.	m	23			
	Mild steel reinforcement to structural concrete work:					
21	Mild steel bars of varying diameter.	t	0,36			
	Carried Forward			R		

	Brought Forward			R	
	Fabric reinforcement:				
22	Type 245 fabric reinforcement in concrete surface in concrete surface beds, slabs, etc.	m2	56		
	One layer of 350 micron Consol Plastics Gunplas USB Green waterproof sheeting (or equal and approved) sealed at laps with Gunplas Pressure Sensitive Tape:				
23	Under surface beds.	m2	56		
	Two part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc including raking out expansion joint filler if necessary:				
24	In 40 x 3 mm saw cut joints in floors.	m	23		
	0,8mm Corrugated roof sheeting with "Chromadeck" finish to one side, in single lengths fixed to timber purlins or rails and 0,8mm galvanised steel accessories with "Chromadeck" finish, guarantee by an approved installer				
25	Roof covering with pitch not exceeding 25 degrees, in transportable lengths not exceeding 20m.	m2	56		
	Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to Beams:				
26	90 x 90 x 3mm x 7,95kg/m Square Hollow-section columns.	t	0,62		
	Purlins and rails bolted to steel:				
27	100 x 50 x 20 x 3 Lipped channel section purlins bolted to purlin cleats fixed to beams.	t	0,55		
	Carried Forward			R	

				R		
	Brought Forward					
	Bolts to columns, beams, etc:					
28	16mm Diameter anchor bolt.	No	104			
	Sundries:					
29	25mm Cement grouting under steel columns.	m2	2			
	Prepare and apply one coat alkyd based universal undercoat and one coat superior quality universal enamel paint, on work in sound condition:					
30	On structural steel members.	m2	58			
	Carried to Final Summary			R		

Item No		Quantity	Rate	Amount	
	BILL NO. 2 **HARD STAND CONSTRUCTION** **CONCRETE, FORMWORKAND REINFORCEMENT** For preambles see "Model Preambles for Trades" **SUPPLEMENTARY PREAMBLES** Cost of tests Cost of tests 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) Formwork Formwork 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.				
	Carried Forward		R		

	Brought Forward			R	
	Formwork to soffits of (solid) slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described 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" Provisional quantities allowing for the formwork described above together with the associated excavation for working space, have been measured in these Bills of Quantities. In the final account, these provisional quantities will be omitted and formwork to be measured will be determined by the initial prescription and/or subsequent authorised instructions of the structural engineer, together with formwork determined by the quantity surveyor as being necessary as defined above For tendering purposes, the structural engineer has indicated that, for design purposes, he will require formwork to all the sides of the following concrete elements below ground level: Column bases, and strip footings The structural engineer reserves the right to vary the above requirements at any time during the construction period at his discretion **REINFORCED CONCRETE** 30MPa/19mm concrete				
1	Surface beds cast in panels on waterproofing	m3	152		
	Carried Forward			R	

	Brought Forward			R		
	TEST CUBES					
	Test Cubes					
2	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	25			
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a power float					
3	Surface beds, slabs, etc	m2	760			
	ROUGH FORMWORK (DEGREE OF ACCURACY II)					
	Rough formwork to sides					
4	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	199			
	MOVEMENT JOINTS ETC					
	Saw cut joints					
5	30 x 10mm Saw cut joints in top of concrete	m	377			
	REINFORCEMENT (PROVISIONAL)					
	Fabric reinforcement					
6	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	760			
	WATERPROOFING					
	SUPPLEMENTARY PREAMBLES					
	Carried Forward			R		

	Brought Forward			R	
	Waterproofing 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 **DAMP PROOFING OF WALLS AND FLOORS** One layer 250 micron "Gunplas USB Green" polyethylene waterproofing:				
7	On compacted earth under concrete surface beds, lapped 150 mm and sealed at all joints (measured net).	m2	760		
	SUNDRIES Approved polyurethane sealing compound including backing cord, bond breaker, primer, etc:				
8	10 x 10 mm Polysulphide sealant in expansion joint including scraping out softboard. (Provisional).	m	377		
	Carried Forward to Summary of Section No. 10			R	

Section No. 10
Bill No. 1
Hard Stand Construction
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	BILL NO. 2 **PLUMBING AND DRAINAGE (PROVISIONAL)** **SUPPLEMENTARY PREAMBLES** uPVC pipes and fittings Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed uPVC pressure pipes and fittings Pipes for water supply shall be of the class stated Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints Excavations No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling "Soft rock" and "hard rock" shall be as defined in "Earthworks" Laying, backfilling, bedding, etc of pipes Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions				
	Carried Forward		R		

	Brought Forward			R		
	Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding <u>Flush pans</u> Flush pans shall have straight or side outlets and P or S traps as necessary					
	<u>SOIL DRAINAGE</u>					
	<u>Class 6 Corflo uPVC pipes:</u>					
1	110mm Pipes laid in and including trenches not exceeding 1m deep.	m	58			
2	160mm Pipes laid in and including trenches not exceeding 1m deep.	m	61			
	<u>Extra over class 6 Corflo uPVC pipes for fittings:</u>					
3	160mm Roding Eye	No	4			
	Carried Forward			R		

	Brought Forward			R		
	Sumps, catchpits, inspection chambers, etc (gratings and covers elsewhere)					
4	Precast concrete inspection chamber 1000mm internal diameter exceeding 1500mm but not exceeding 2000mm deep deep internally, complete with 150mm thick precast concrete cover slab with rebated opening for cover and frame, benching in bottom chamber and dished down to channels.	No	4			
	Gratings, covers, etc:					
5	560mm Diameter precast concrete manhole cover lid slab (Type 4A), all in accordance with SABS 558	No	4			
	Sundries:					
6	Testing soil drainage system.		Item			
	Carried Forward to Summary of Section No. 10			R		

Section No. 10
Bill No. 2
Soil Drainage
TENDER BILLS OF QUANTITIES

Item No			Quantity	Rate	Amount	
	BILL NO.3					
	PLUMBING AND DRAINAGE (PROVISIONAL)					
	WATER SUPPLIES					
1	Excavation not exceeding 2m deep for pipe trenches	m3	65			
2	Backfilling to pipe trenches compacted to 95% Mod AASHTO density	m3	65			
	High Density Polyethylene (HDPE) pipes					
3	75mm Diemeter Pipes laid in trenches (trenches elsewhere)	m	65			
	High Density Polyethylene (HDPE) pipes for fittings					
4	75mm Tee	No	3			
	Sundries					
5	Unreinforced concrete in thrust blocks at bends, tees, etc including necessary extra excavation, formwork, etc	m3	0,1			
6	Testing water pipe system		Item			
	Carried Forward to Summary of Section No. 10			R		

Item No			Quantity	Rate	Amount	
	BILL NO.4					
	Bulk Earthworks					
	SITE CLEARANCE ETC					
	Site clearance					
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	1 485			
	EARTHWORKS (PROVISIONAL)					
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated in this Bill.					
	Nature of Ground.:					
	The soil material on site varies between clayey-silty sands and clays of low plasticity, respectively classifying as SC-SM and CL. These soils are corrosive. The shale encountered at depth is characterised as either poorly graded gravels or clayey gravels of low plasticity.					
	(For more details on the soil conditions, please refer to the attached geotechnical investigation report marked as annexure E)					
	Descriptions of excavations shall be deemed to include all ground conditions classified as "earth" described in the above report and where more difficult character as indicated, these are separately measured.					
	Carried Forward			R		

	Brought Forward		R		
	Carting away of excavated material.: Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or alternatively, from stock piles situated on the building site. **Excavations, Filling , etc.** The Contractor shall notify the Principal Agent as soon as the excavations are ready to receive foundations and no building work may be started until the Principal Agent has approved the excavations. Over excavations taken beyond the levels and sizes shown or required to obtain a solid foundation shall be filled by the contractor, at his own expense, with 15MPa concrete. Should the Contractor consider that any of the excavations are more difficult in nature than excavations in "earth" he shall immediately notify the Quantity Surveyor in writing. Failing such notification the excavations shall be deemed to be in "earth" and shall be measured and valued accordingly. The Contractor may use any method he chooses to excavate any class of material, but his chosen method of excavations shall not determine the classification of the material excavated.				
	Carried Forward		R		

	Brought Forward			R		
	Blasting: No blasting will be allowed without the written permission of the Principal Agent. Should blasting be necessary, the Contractor shall take every precaution to protect the Works and persons, animals and property in the vicinity of the Works. The Contractor will be held responsible for any injury or damage caused by any blasting operations and shall make good such damage at his own expense. **Testing:** Prices for filling are to include for all necessary density tests in accordance with SANS 1200D. **Prescribed density tests:** NOTE: The Contractor is specifically referred to the SANS 1200 clause regarding the number of density tests required on the layer work, filling, etc. The tests as prescribed are deemed to be included in the appropriate rates for the layer work, filling, etc. and will not be paid for separately. The following density tests measured are over and above those normally required by SANS 1200 and is for the use of the Engineer only and will only be paid for if instructed in writing and approved as acceptable by the Engineer. **BULK EXCAVATION** **Excavation in all materials other than rock not exceeding 2m deep.:**					
2	Reduced levels under roads, paving, etc.	m3	891			
	Extra over bulk excavation in all materials for excavation in (on-site verification required for payment).:					
3	Soft rock.	m3	18			
	Carried Forward			R		

				R		
	Brought Forward					
4	Hard Rock.	m3	27			
	Extra over bulk excavation in earth for breaking up and removing					
5	Brickwork	m3	18			
6	Unreinforced concrete	m3	22			
7	Reinforced concrete	m3	27			
	Extra over bulk excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk).:					
8	Surplus material from excavations and/or stock piles on site to a dumping site to be found by the Contractor.	m3	668			
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density.:					
9	Under floors, pavings, etc.	m3	445			
	Filling with G5 approved material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density.:					
10	Under floors, pavings, etc.	m3	223			
	Filling with G7 approved material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density.:					
11	Under floors, pavings, etc.	m3	223			
	Carried Forward			R		

	Brought Forward			R		
	Filling with G9 approved material supplied and carted onto site by the Contractor, compacted to a density of at least 93% Mod. AASHTO maximum density.:					
12	Under floors, pavings, etc.	m3	223			
	Coarse river sand filling compacted to 100% Mod. AASHTO maximum density.:					
13	Under floors, etc.	m3	74			
	Keeping excavations free of water.:					
14	Keeping excavations free of water other than subterranean water.		Item			
	Prescribed density tests on filling.:					
15	"Modified AASHTO Density" test.	No	10			
16	"Road Indicator" test	No	10			
	Compaction of surfaces.:					
17	Rip and scarify top surface of existing formation to a depth of 150mm and compact to not less than 100% of Modified AASHTO density.	m2	1 485			
	SOIL POISONING					
	Approved brand of weed killer mixed and applied in accordance with manufacturer's instruction.:					
18	Under floors and pavings, etc. (Provisional).	m2	1 485			
	Carried Forward to Summary of Section No. 10			R		

SECTION SUMMARY - De- Canting

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Section No. 10
TENDER BILLS OF QUANTITIES

Item No		Quantity	Rate	Amount	
	BILL NO 1				
	OCCUPATIONAL HEALTH & SAFETY				
	Occupational Health & Safety				
	NOTE: Bidders are advised to study the Occupational Health and Safety Act, (Act no. 85 of 1993) including the 2014 Construction Regulations before pricing this bill.				
	Bidders must note that it is compulsory to price all items as specified regarding Health and Safety in this bill, the Occupational Health and Safety Act (Act 85 of 1993) and the 2014 Construction Regulations.				
	FAILURE TO DO SO WILL INVALIDATE THE TENDER				
	The following items serves as a breakdown of the expected cost items for the requirements of the Act and have to be duly completed and returned with the tender form (refer to the Occupational Health and Safety Specification for detail of clauses as listed).				
	Fixed-Charge Items (Part C4 Clause 10.2.1)				
	a) Preparation of Health and Safety Plan				
1	The sum shall cover all costs involved in the preparing the Health and Safety Plan (which includes the risk assessment), which shall include the preparation of all permit applications and notifications as required by this specification and shall include the employment cost of all health and safety personnel employed for the preparation of the Contractor's Health and Safety Plan.	Item			
	Carried Forward		R		

	Brought Forward		R		
	b) Health and Safety Training				
2	The sum shall cover all costs involved in preparation of the all necessary Health and Safety Induction Training materials required from the training of the Contractor's employees, Subcontractors and all visitors to the Works.	Item			
	c) Personal Protective Clothing and Equipment				
3	The sum shall cover all costs involved in the initial provision of all personal protective clothing and equipment for the Contractor's employees and Subcontractors and any visitors to the Works, as required by this specification (which includes the requirements of the Occupational Health and Safety Act, 1993 and its regulations, as amended).	Item			
	d) Fences, Signs and Barricades				
4	The sum shall cover all costs involved in the initial provision of all fences, signs and barricades necessary for the protection of all persons, plant, vehicles, equipment or facilities, as required by this specification (which includes the requirements of the Occupational Health and Safety Act, 1993 and its regulations, as amended).	Item			
	e) Establishment of Safety Administration				
5	The sum shall cover all costs involved in establishment of all administrative matters required by this specification which shall include, but not limited to, the establishment of the Health and Safety File.	Item			
	f) Other Health and Safety Fixed-charge Obligations				
6	The sum shall cover the fixed costs of all other obligations that are required for the safe execution of the Works in accordance with the requirements of this specification and that are not specifically covered in 10.2.1(a), (b), (c), (d) or (e).	Item			
	Carried Forward		R		

	Brought Forward			R	
	Time-Related Items (Part C4, Clause 10.2.2)				
7	a) Implementation and maintenance of Health and Safety Plan (In months). The sum shall cover all costs involved in the implementation and maintenance of the Health and Safety Plan. This shall include but shall not be limited to the following: 1) The employment cost of all health and safety personnel including consultants, health and safety officers, inspectors, supervisors and issuers required in terms of the Contractor's Health and Safety Plan, 2) Updating the Health and Safety Plan as needed, 3) Carrying out of periodic audits and follow-up audits, 4) Compiling ongoing risk assessments and risk assessment reports as required by the Works, 5) Convening of regular safety meetings with the Safety Representatives, 6) Accompanying and supporting the Employer or his Safety Agent during ad hoc audits, 7) Compilation of monthly safety reports and statistics for the Employer or his Safety Agent,	No	18,00		
8	b) Implementation and maintenance of Training (in months) The sum shall cover all costs involved in the implementation of the induction training of the Contractor's employees, Subcontractors and all visitors to the Works.	No	18,00		
9	c) Maintenance of Personal Protective Clothing and Equipment (in months)	No	18,00		
	Carried Forward			R	

	Brought Forward			R		
	The sum shall cover all costs involved in maintenance, repair or replacement of personal protective clothing required by the Contractor's employees or Subcontractors and all visitors to the Works.					
10	d) Maintenance of Fences, Signs and Barricades (in months).	No	18,00			
	The sum shall cover all costs involved in maintenance, repair or replacement for whatever reason of fences, signs and barricades used for the Works. The rate shall include for the provision of security guards for the safeguarding of the items provided should this be necessary.					
11	e) Implementation and maintenance of Safety Administration (in Months).	No	18,00			
	The sum shall cover all costs involved in establishment of all administrative matters required by this specification which shall include, but not limited to, the maintenance of the Health and Safety File or the completion and recording of the safety check lists required by this specification.					
12	f) Other Health and Safety Time-related Obligations (in months).	No	18,00			
	Carried to Final Summary			R		

Item No		Quantity	Rate	Amount	
	BILL NO 1				
	PROVISIONAL SUMS ETC				
	Note				
	All prime cost amounts and provisional sums are net				
	BUDGETARY ALLOWANCES				
	Contract Price Adjustment Provisions (CPAP)				
1	Provide the amount of R1 500 000.00 (Eight Hundred Thousand Rands) for) for CPAP as indicated in the Preliminaries Bill to be used in terms of the Principal Building Agreement	Item		1 500 000,00	
	Budgetary Allowances				
2	Provide the sum of R1 000 000,00 (One Million Rand) for budgeted amounts set aside for items that have not been fully specified during the compilation of the tender Bills of Quantities accounting for uncertain costs such as finishes, materials, or labour for which exact details are not yet determined. these allowances and intended to provide flexibility, allowing client / End users to make selections later while assisting to secure the budget from unexpected costs	Item		1 000 000,00	
	Community Liaison Officer (CLO)				
3	Provide the amount of R 100 000.00 (One Hundred Thousand Rands) for Community Liaison Officer (CLO) to be used for the duration of the project.	Item		100 000,00	
4	Profit	Item			
5	Attendance	Item			
	Carried Forward		R		

	Brought Forward		R		
	SPECIALIST WORK (SELECTED SUB-CONTRACTORS)				
	Signage				
6	Provide the sum of R460 000,00 (Four Hundred and Sixty Thousand Rand) for Directional Signage	Item		460 000	00
7	Profit	Item			
8	Attendance	Item			
9	Provide the sum of R150 000,00 (One Hundred and Fifty Thousand Rand) for Statutory Signage	Item		150 000	00
10	Profit	Item			
11	Attendance	Item			
	WALL PANEL HEATERS				
	Supply and installation of Wall Panel Heaters:				
12	Provide the amount of R150 000.00 (One Hundred and Fifty Thousand Rands) for the supply and installation of a Wall Panel.	Item		150 000	00
13	Profit on above item.	Item			
14	Attendance on Ditto.	Item			
	BURGLAR PROOFING				
	Supply and installation of a Burglar Proofing:				
15	Provide the amount of R500 000 (Five Hundred Thousand Rands) for the supply and installation of Burglar Proofing.	Item		500 000	00
16	Profit on above item.	Item			
	Carried Forward		R		

	Brought Forward		R		
17	Attendance on Ditto.	Item			
	Carried to Final Summary		R		

Section No. 12
Bill No. 1
Provisional Sums
TENDER BILLS OF QUANTITIES

Proposed Major Upgrades to Existing PAX Clinic Viljoenskroon

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2	Alterations	34		
3	Building Works	133		
4	Electrical Installation	191		
5	Mechanical Installation	224		
6	Civil Works - Soil Drainage	227		
7	Civil Works - Stormwater Drainage	231		
8	Civil Works - Domestic & Fire Water	236		
9	Covered Walkways	241		
10	De- Canting	255		
11	Occupationall Health & Safety	259		
12	Provisional Sums	262		
	Sub-total		R	
	Allow a contingency amount of R2 000 000.00 to be used as directed by the Principal Agent	Item		2 000 000,00
	Sub Total		R	
	VALUE ADDED TAX		R	
	Carried to Form of Tender		R	
	TENDER BILLS OF QUANTITIES			