Item No		Quantity	Amount R	

BILL NO. 1

PRELIMINARIES NOTES

i) The **agreement** is to be the JBCC Principal Building Agreement, Edition 4.1 - March 2005, 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 4.1 - March 2005 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

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Carried to Collection R

Section No. 1
PRELIMINARIES
Bill No. 1
Preliminaries
Tender Bills of Quantities
Independent Development Trust (IDT)

Item No		Quantity	Amount 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 to Collection	R		

Item No		Quantity	Amount 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 to Collection	R		

Item No		Quantity	Amount 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 to Collection	R		

Item No		Quantity	Amount 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 to Collection	R		

Item No		Quantity	Amount R	
	41.1 CONTRACTING AND OTHER PARTIES			
	42.1.1 Employer: Department of Sports, Arts, Culture and Recreation Postal Address: Warden Building 58 Henry Street Bloemfontein 9301. Telephone: 051 410 3679 Fax: e-mail: Domicilium: Wadern Building 58 Hanry Street Bloemfontein 9301 41.1.2 Agents service: Project Manager Agent (1) Quantum Built and Environment consultants (Pty) Ltd. Address: 74 Stals Road Wilgehof Bloemfontein 9301 Telephone: 051 430 8240 Facsimile: 051 430 8610 Email: siyasanga@quantumbuilt.co.za			
	Carried to Collection	R		
	Section No. 1 **PRELIMINARIES** **Bill No. 1** **Preliminaries** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***			

Item No		Quantity	Amount R	
	41.1.3 Agents service: Architect Agent (2) TKDS Architects Postal Address: Regus Business Centre Ground Floor Unit Park Building 082 Vodacom Lane, Nobel Street Brandwag Bloemfontein Telephone: 051 101 4143 Email: hymne@tkdsg.co.za 41.1.4 Agents service: Quantity Surveyor Agent (3) Quantum Built and Environment consultants (Pty) Ltd. Address: 74 Stals Road Wilgehof Bloemfontein 9301 Telephone: 051 430 8240 Facsimile: 051 430 8610 Email: siyasanga@quantumbuilt.co.za			
	Carried to Collection	R		
	Section No. 1 **PRELIMINARIES** **Bill No. 1** **Preliminaries** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***			

Item No		Quantity	Amount R	
	41.1.5 Agents service: Structural Engineer Agent (4) BVI Consulting Engineer Postal Address: P.O. Box 12441 Brandhof Bloemfontein 9324 Telephone: 051 447 2137 Email: johnnieh@bvi.co.za 41.1.5 Agents service: Civil Engineer Agent (5) BVI Consulting Engineer Postal Address: P.O. Box 12441 Brandhof Bloemfontein 9324 Telephone: 051 447 2137 Email: luckym@bvi.co.za 41.1.6 Agents service: Electrical Engineer Agent (6) BVI Consulting Engineer Postal Address: P.O. Box 12441 Brandhof Bloemfontein 9324 Telephone: 051 447 2137 Email: johanb@bvi.co.za			
	Carried to Collection	R		
	Section No. 1 **PRELIMINARIES** **Bill No. 1** **Preliminaries** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***			

Item No		Quantity	Amount R	
	41.1.7 Agents Service : Mechanical Engineer Agent (7) BVI Consulting Engineer Postal Address: P.O. Box 12441 Brandhof Bloemfontein 9324 Telephone: 051 447 2137 Email: mechfs@bvi.co.za 41.1.8 Agents Service : Occupational Health & Safety Consultants Agent (6) Silver Mile Trading Postal Address: 97 Pellissier Drive Pellisier Bloemfontein 9301 Telephone: 073 515 5002 E-mail: asanda@silvermile.co.za			
	Carried to Collection	R		

Item No		Quantity	Amount R	
	41.2 CONTRACT DETAILS			
	41.2.1 Works Description:			
	Construction of proposed new Multi-purpose indoor sports in Smithfield complete with:			
	1. Building works consisting of: b. Earthworks b. Concrete floors, columns, walls and roof slabs c. Foundation and Super-structure Brick walls and Face brick External Finishes d. Iron Roof Sheeting e. Aluminium Windows 2. Electrical Installation, 3. Mechanical Installation, and 4. External Works.			
	41.2.2 Site Description:			
	ERF: 1117, Mofulatshepe Township Extension 03, Smithfield			
	Latitude (North or South): -30" 222° 22'			
	Longitude (East or West): 26" 534° 00'			
	41.2.3 Work or installations by direct contractors:			
	N/A			
	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 to Collection	R		
	Section No. 1 **PRELIMINARIES** **Bill No. 1** **Preliminaries** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***			

Item No		Quantity	Amount R	
	41.2.7 Intended date of practical completion and the penalty per calendar day for the works **as a whole** ***15 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 to Collection	R		

Item No		Quantity	Amount 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 *No*			
	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: Seventh Edition, revised in 2015*			
	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 to Collection	R		

Item No		Quantity	Amount 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* Where **JBCC CPAP** is to be used *Base Month (To be advised)*			
	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]*			
	<u>SECTION B: PRELIMINARIES</u>			
	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		
	Carried to Collection	R		
	Section No. 1 **PRELIMINARIES** **Bill No. 1** **Preliminaries** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***			

Item No		Quantity	Amount R	
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		
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		
	Carried to Collection	R		

Section No. 1
PRELIMINARIES
Bill No. 1
Preliminaries
Tender Bills of Quantities
Independent Development Trust (IDT)

Item No		Quantity	Amount R	
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		
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		
	Carried to Collection	R		

Item No		Quantity	Amount R	
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		
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		
	Carried to Collection	R		

Item No		Quantity	Amount R	
	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		
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		
	Carried to Collection	R		

Item No		Quantity	Amount R
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*		
	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*		
	Carried to Collection	R	

Item No		Quantity	Amount R	
	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 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			
	Carried to Collection	R		

Item No		Quantity	Amount R	
	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		
	12.2.1 Payment of preliminaries Alternative selected: A			
	12.2.2 Adjustment of preliminaries Alternative selected:			
	12.2.3 Additional agreed preliminaries items .....- .....- .....-			
	Carried to Collection	R		

Item No		Quantity	Amount 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		
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Item No		Quantity	Amount 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	Community Liaison Officer The Contractor shall employ one Community Liaison Officer (CLO), nominated by the community for full duration of the contract. The duties of the CLO and the conditions of employment shall be in accordance with Annexure D Agreement of Temporary Employment as Community Liaison Officer attached to these Bills of Quantities	Item		
	Carried to Collection	R		

Item No		Quantity	Amount R	
104	Community involvement It is a prerequisite and condition of tender that the successful Contractor continuously employ a minimum of 50% of the on site workforce (excluding specialist subcontractors e.g. Electrical installation workforce, etc) in respect of unskilled labour requirements, from local residents living in the immediate vicinity and/or surrounding local communities for the respective building works at normal wage rates. The representative / agent shall be empowered to inspect the books and records of the contractor from time to time to ensure that this requirement is met. Should it become apparent that this condition is not complied with, the representative / agent shall close down the works until such time as this requirement is met. Any such work stoppages will be for the Contractor/s account. Any difficulty experienced by the Contractor in the procurement of the required percentage of local labour is to be immediately referred to the representative / agent.	Item		
	Carried to Collection	R		

Item No		Quantity	Amount R	
	Local Economic Development (LED) In the department's decision on LED implementation, its strategies and the process of arriving at a LED strategy is that, Local economic development must aim to create jobs by making the local economy grow. As part of the strategy, in any project that belongs to the Department of Ports, Arts and Culture, there MUST be a subcontracting of the works to at least a minimum of 30% of the value of the contract so as to make the economy grow and create income opportunities for more people, especially the poor. **Key principles underlying Local Economic Development include:** · making job creation and poverty alleviation a priority in any LED strategy · targeting previously disadvantaged people, marginalized communities and geographical regions, black economic empowerment enterprises and SMMEs to allow them to participate fully in local economies. · promoting local ownership, community involvement, local leadership and joint decision-making. · involving local and national partnerships between communities, businesses and government to solve problems, create joint business ventures, and build local areas. · using local resources and skills. · integrating diverse economic initiatives in a comprehensive approach to local development · applying flexible approaches to responding to changing conditions. **Carried to Collection**	R		

Item No		Quantity	Amount R	
	It is a prerequisite and condition of tender that the successful Contractor ensures a minimum of 30% of the works (including specialist subcontractors e.g. Electrical installation workforce, etc.) in respect of Local Economic Development requirements, from local residents living in the immediate vicinity and/or surrounding local communities for the respective building works at market related rates. The representative / agent shall be empowered to inspect the books and records of the contractor from time to time to ensure that this requirement is met. Should it become apparent that this condition is not complied with, the representative / agent shall close down the works until such time as this requirement is met. Any such work stoppages will be for the Contractor/s account. Any difficulty experienced by the Contractor in the procurement of the required percentage of local economic development is to be immediately referred to the representative / agent.			
105	The tenderer is to allow attending to the Local Economic Development as stipulated in the notes as well as for any potential risks associated with the procurement of the local sub-contractors. F:.....V:..... T:.....	Item		
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Section No. 1

PRELIMINARIES

Bill No. 1

Preliminaries

COLLECTION

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Section No. 1

PRELIMINARIES

Bill No. 1

Preliminaries

COLLECTION

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Item No		Quantity	Rate	Amount R	
	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	9,656		
	EXCAVATION, FILLING, ETC OTHER THAN BULK				
	Carried to Collection			R	

Item No			Quantity	Rate	Amount R	
	Excavate in compacted pickable material not exceeding 2m deep below reduced or filled up ground level and deposit on site where directed.					
2	Excavate for surface trenches.	m3	257			
	Excavate in compacted pickable material exceeding 2m and not exceeding 4m deep below reduced or filled up ground level and deposit on site where directed.					
3	Trenches	m3	9			
	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.					
4	Excavate back from the face of trench excavations exceeding 500mm and not exceeding deep and 300 mm between the structure and the sides to be excavated back.	m2	706			
5	Excavate back from the face of column bases exceeding 500 mm and not exceeding 1,5 m deep and 300 mm between the structure and the side to be excavated back.	m2	525			
	SUNDRIES					
	Extra over all excavations for carting away					
6	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	1,689			
	Risk of collapse of excavations					
7	Allow for the risk of collapse to sides of trenches and holes from ground level not exceeding 1,5 m deep.	m2	1,448			
	Carried to Collection			R		

Item No		Quantity	Rate	Amount R	
	Keeping excavations free of water				
8	Allow for keeping excavations free of water and mud by pumping or bailing.	Item			
	Carried to Collection		R		

Section No. 2
BUILDINGS
Bill No. 1
Earthworks
Tender Bills of Quantities
Independent Development Trust (IDT)

Item No			Quantity	Rate	Amount R	
	FILLING, ETC:					
	Earth filling obtained from the excavations including haulage approximately 100m from perimeter of excavations					
9	Backfill, saturated to optimum moisture content and compacted to 95% modified AASHTO into trenches.	m3	538			
10	Backfill, saturated to optimum moisture content and compacted to 95% modified AASHTO under floors.	m3	324			
	Coarse river sand filling supplied by the contractor					
11	50mm Thick layer of approved clean sand filling under surface beds.	m3	102			
	SOIL POISONING					
	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.					
12	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2	2,029			
13	To bottoms and sides of trenches etc.	m2	3,423			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	COMPACTION OF SURFACES					
	Compaction of surfaces					
14	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	2,045			
	DENSITY TESTS					
	Prescribed density tests on filling					
15	"Modified AASHTO Density" test	No	8			
16	"Road Indicator" test	No	19			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 1

Earthworks

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	28		
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Item No		Quantity	Rate	Amount R	
	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 to Collection		R		

Item No		Quantity	Rate	Amount 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 **Carried to Collection**		R		

Item No			Quantity	Rate	Amount R	
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES					
	15MPa/19mm concrete					
1	Surface blinding under footings and bases	m3	46			
	REINFORCED CONCRETE					
	25MPa/19mm concrete					
2	Strip footings	m3	27			
3	Foundation beams	m3	43			
4	Ramps	m3	21			
	30MPa/19mm concrete					
5	Surface beds cast in panels on waterproofing	m3	278			
6	Slabs, including beams and inverted beams	m3	90			
7	Stairs including landings, beams and inverted beams	m3	158			
8	Isolated beams	m3	9			
9	Columns	m3	45			
10	Walls in foundations (Provisional)	m3	3			
11	Walls	m3	8			
12	Vanity slabs, cupboard slabs, cover slabs, etc	m3	0.2			
13	Hood slabs	m3	9			
14	Steps, urinal steps, cupboard platforms, etc	m3	2			
	TEST CUBES					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Test Cubes					
15	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	100			
	CONCRETE SUNDRIES					
	Finishing top surfaces of concrete smooth with a power float					
16	Surface beds, slabs, etc	m2	2,132			
	Finishing top surfaces of concrete smooth with a wood float including non-slip brush finish					
17	Surface beds, slabs, etc	m2	286			
18	Ramps to falls	m2	157			
	Sikaflor Curehard-24 or equal and approved 1-part sodium silicate clear surface hardener					
19	On Floor, landings, treads and risers	m2	631			
	ROUGH FORMWORK					
	Rough formwork to sides					
20	Strip footings (Provisional)	m2	198			
21	Walls in foundations (Provisional)	m2	24			
22	Steps	m2	1			
23	Inverted beams	m2	100			
24	Isolated beams	m2	78			
25	Rectangular columns total height not exceeding 3,5m above bearing level	m2	43			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
26	Square columns total height not exceeding 3,5m above bearing level	m2	200			
27	Rectangular columns with total height exceeding 3,5m and not exceeding 5m above bearing level	m2	19			
28	Square columns with total height exceeding 3,5m and not exceeding 5m above bearing level	m2	152			
29	Rectangular columns with total height exceeding 5m and not exceeding 6,5m above bearing level	m2	19			
30	Square columns with total height exceeding 5m and not exceeding 6,5m above bearing level	m2	152			
31	Rectangular columns with total height exceeding 6,5m and not exceeding 8m above bearing level	m2	7			
32	Square columns with total height exceeding 6,5m and not exceeding 8m above bearing level	m2	94			
33	Square columns with total height exceeding 8m and not exceeding 9,5m above bearing level	m2	59			
34	Edges, risers, ends and reveals exceeding 300mm high or wide	m2	97			
35	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	372			
36	Sloping and stepped outer edges of stairs not exceeding 300mm high extreme	m	132			
	<u>Rough formwork to soffits</u>					
37	Slabs with sloping soffits exceeding 250mm and not exceeding 500mm thick propped up exceeding 500mm thick propped up exceeding 3,5m and not exceeding 5m high	m2	236			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
38	Slabs propped up exceeding 3,5m and not exceeding 5m high	m2	19			
39	Isolated beams	m2	17			
40	Stairs with sloping soffits propped up between 0m and 2,380m high	m2	283			
	Smooth formwork to form					
41	Opening exceeding 1m and not exceeding 2m girth through not exceeding 300mm slab (Provisional)	No	5			
42	150mm Diameter opening through not exceeding 300mm slab (Provisional)	No	5			
43	300mm Diameter opening through not exceeding 300mm wall or beam (Provisional)	No	5			
	21mm Thick Shutterply board permanent shuttering formwork to soffits, fixed to slats					
44	Vanity slabs, cupboard slabs, cover slabs, etc	m2	2			
	Boxing in special formwork to form					
45	25mm Radius bullnose edge along top	m	4			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	SMOOTH FORMWORK (DEGREE OF ACCURACY 1)					
	Smooth formwork to soffits					
46	Slabs	m2	5			
	Smooth formwork to sides					
47	Walls with total height exceeding 1,5m and not exceeding 3,5m above bearing level	m2	72			
48	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	16			
	MOVEMENT JOINTS ETC					
	Expansion joints with soft board between vertical concrete surfaces					
49	10mm Joints not exceeding 300mm high	m	101			
	Expansion joints with jointex between vertical concrete and brick surfaces					
50	10mm Joints exceeding 300mm high or wide	m2	387			
51	10mm Joints not exceeding 300mm high along edges of surface beds	m	961			
52	10mm Joints not exceeding 300mm wide along edges of columns	m	183			
	Saw cut joints					
53	30 x 10mm Saw cut joints in top of concrete	m	597			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Vertical joggle construction joints through concrete, including thick cement slurry to one face					
54	Slabs not exceeding 300mm thick	m	61			
	REINFORCEMENT (PROVISIONAL)					
	Mild steel reinforcement to structural concrete work					
55	12mm Diameter bars	t	43.22			
56	10mm Diameter bars	t	9.29			
57	8mm Diameter bars	t	9.29			
	High tensile steel reinforcement to structural concrete work					
58	32mm Diameter bars	t	43.10			
59	25mm Diameter bars	t	6.00			
60	20mm Diameter bars	t	2.68			
61	16mm Diameter bars	t	16.12			
62	12mm Diameter bars	t	1.66			
63	10mm Diameter bars	t	5.52			
	Fabric reinforcement					
64	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	765			
65	Type 245 fabric reinforcement in concrete surface beds, slabs, etc	m2	1,200			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 2

Concrete, Formwork & Reinforcement

COLLECTION

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Item No			Quantity	Rate	Amount R	
	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	Half brick walls	m2	78			
2	270mm Cavity brick walls	m2	323			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	SUPERSTRUCTURE					
	Brickwork of NFP bricks in class II mortar					
3	Half brick walls	m2	304			
4	Half brick linings to concrete	m2	39			
5	270mm Cavity brick walls	m2	2,438			
	Brickwork reinforcement					
6	75mm Wide reinforcement built in horizontally	m	15,632			
7	150mm Wide reinforcement built in horizontally	m	13,464			
	Concrete pre stressed fabricated lintels					
8	110 x 70mm Lintels in lengths not exceeding 3m	m	362			
9	110 x 70mm Lintels in lengths exceeding 3m and not exceeding 4,5m	m	88			
10	110 x 70mm Lintels in lengths exceeding 4,5m and not exceeding 6m	m	57			
	Galvanised hoop iron cramps, ties, etc					
11	40 x 1,6mm x 1360mm long "Tibond" or equal and approved wall tie strips shot pinned to concrete and with ties bent out and built into brickwork	No	2,230			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	FACE BRICKWORK					
	Facebricks Prime Cost Of R6 500.00 Per Thousand Excluding VAT Delivered To The Site Pointed With Square Recessed Horizontal And Vertical Joints.:					
12	Extra over brickwork for face brickwork in foundations.	m2	33			
13	Extra over brickwork for face brickwork.	m2	946			
14	Extra over brickwork for face brick work in brick-on-edge header lintel 230mm wide.	m	176			
15	220mm Wide brick od edge header course sills set sloping and slightly projecting.	m	5			
16	Extra over brickwork for brick-on-edge header course band	m	59			
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs etc.:					
17	24 x 120mm Window sills set flat and slightly projecting.	m	150			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 3

Masonry

COLLECTION

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Item No			Quantity	Rate	Amount R	
	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	2,045			
	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	282			
3	Vertically to jambs in 110mm widths	m	844			
	WATERPROOFING TO ROOFS, BASEMENTS, ETC					
	EshaGum 470 or equal and approved torch applied APP modified bitumen cap sheet in two layer torch on systems with torched on overlaps					
4	On sloping roofs	m2	214			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
5	Sealing edges to brickwork or concrete including trowelled mastic bead	m	131			
6	Flashing strip 300mm girth at turn-ups including sealing top edge into groove with mastic	m	131			
7	Additional membrane 300mm girth at internal and external angles	m	131			
8	Additional membrane 300mm girth at turn-ups including flashing strip 300mm girth and sealing top edge into groove with mastic	m	131			
9	On internal surfaces of 75mm diameter full bore outlet.	No	3			
	PROTECTIVE STONE DRESSING					
	19mm Crushed stone dressing evenly spread with larger stones around outlets					
10	50mm Thick on waterproofing to flat roofs	m2	214			
	PROTECTIVE ROOFING PAINT					
	Two coats Silvakote bituminous aluminium paint					
11	On waterproofing to roofs	m2	214			
	WATERPROOF MEMBRANE					
	"Secomastic" non setting mastic sealant applied cold with a hand pressure caulking gun and leave perfectly watertight:					
12	Around steel windows and door frames.	m	1,689			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	SUNDRIES					
	Sundries					
13	10 x 10 mm Polysulphide sealant in expansion joint including scraping out softboard. (Provisional).	m	1,167			
14	10 x 10mm In saw cut joints in floors	m	597			
	Approved polyurethane sealing compound including backing cord, bond breaker, primer, etc:					
15	In joints between steel frames and walls	m	694			
	Silicone sealing, etc.:					
16	Joints not exceeding 10mm between wall tiles and sanitary fittings.	m	70			
17	Joints not exceeding 10mm between timber skirting and wall.	m	281			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 4

Waterproofing

COLLECTION

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Item No		Unit	Quantity	Rate	Amount R	
	BILL NO. 5					
	ROOF COVERINGS ETC					
	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.					
	SUPPLEMENTARY PREAMBLES					
	Ribbed roofing sheets.:					
	The sheets shall be fixed in accordance with the manufacturer's recommendations with side-laps on the leeward side of the prevailing wind direction.					
	Cutting of sheets:					
	All cutting of sheets shall be properly performed and all exposed cut edges shall be perfectly straight and treated to match roof finish.					
	Carried to Collection			R		

Item No		Unit	Quantity	Rate	Amount R	
	PROFILED METAL SHEETING AND ACCESSORIES					
	KLIP-LOK 700 SHEETING OR EQUAL AND APPROVED					
	0,58mm Thick Kliplok 700 profile roll formed in continuous lengths galvanised steel Z200 complying with ISQ550 (3T) with a Chromadec colour coated "Dark Dolphin" to one side with a pebble grey backing coat proof sheeting fixed to steel purlins at maximum 2500mm c/c and eaves purlins at maximum 2100mm c/c by means of patented KL700 clips fixed with 10No 16 x 16mm long self drilling wafer head PH2 screws, all in accordance with the manufactures instructions by a GRS approved contractor.					
1	Roof covering with pitch not exceeding 25 degrees	m2	1,948			
2	Side cladding	m2	846			
3	Side wall flashing 650mm girth	m	38			
4	Head wall flashing 650mm girth	m	118			
5	Apex flashing 750mm girth	m	331			
6	Drip flashing 150mm girth	m	225			
	Carried to Collection			R		

Item No		Unit	Quantity	Rate	Amount R	
	ROOF AND WALL INSULATION					
	Alububble double sided (code 1983) or equal and approved superior p[performance radiant barrier material manufactured using a modern sophisticated continuous laminating process consisting of a layer of low density Polyethylene air cells on both sides with MPET (foil)					
7	Insulation laid taut over purlins (at approximately 1200mm centres) and fixed concurrent with roof covering including galvanised steel straining wires at 383mm c/c	m2	1,948			
	IsoBoard or equal and approved high density 32-36kg/m3 rigid extruded polystyrene 100% closed cell insulation board					
8	120mm Thick and 600mm wide with IsoPine/edge bevelled finish laid horizontally over trusses and secured with timberfix screws through purlins/battens. Install as per manufacturer's specifications.	m2	940			
	LAMBDABOARD or equal and approved laminated polyisocyanurate core board with a minimum core density of 34kg/m3					
9	30mm Thick and 1200mm wide with a 1.25(Km2/W) R-Value finished with white mineral and mineral laminated on each side and installed using Rigifoam's concealed range of LAMBDABOARDS clips (starter clips/dual clips). All in accordance with the manufacturer's specification and recommendations.	m2	9			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 5

Roof Coverings, etc

COLLECTION

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Item No		Quantity	Rate	Amount R	
	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				
	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.				
	Carried to Collection		R		

Item No		Quantity	Rate	Amount R	
	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. **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 to Collection**		R		

Item No		Quantity	Rate	Amount 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 to Collection**		R		

Item No		Quantity	Rate	Amount 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 to Collection**		R		

Item No		Quantity	Rate	Amount 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 to Collection**		R		

Item No		Quantity	Rate	Amount 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. **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. **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. **Carried to Collection**		R		

Item No		Quantity	Rate	Amount R	
	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 ROOF TRUSSES, ETC.				
	Sawn softwood:				
	Prefabricated timber roof construction complete including purlins, runners, bracing hips, valleys, cleats, purlins, etc.,				
1	Mono Pitched timber roof construction including 800mm overhang, for building measuring 11.439m long x 6.027m wide overall, on plan including, trusses, jack rafters, permanent bracing and 76 x 50mm purlins/battens placed at 750mm centre for roof covering (**Junitor area incl. Refuse Area** - Refer to Architect's drawing).	Item			
	Allow for the preparation and submission of the following documents:				
	Junitor area including Refuse Area:				
2	Detailed shop drawings indicating truss sizes, truss positions, bracing, details, etc. to be submitted for approval prior the commencement of any fabrication.	Item			
3	Design certificate indicating the licensed programme used, SABS specifications adhered to, general procedures and loadings adopted, sizes and grading of timber components, details, etc.	Item			
4	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	Item			
	Carried to Collection		R		

Item No			Quantity	Rate	Amount R	
	Sawn softwood.:					
5	Wall plate size 38 x 114mm.	m	36			
	FACIAS, BARGE BOARDS, ETC:					
	Facias, Barge boards, etc.					
6	12 x 225 mm Fibre cement barge board drilled and brass screwed and including steel jointing strips between lengths.	m	13			
7	12 x 225 mm Fibre cement facia drilled and brass screwed and including steel jointing strips between lengths.	m	24			
8	Splay cut end.	No	4			
	SKIRTINGS					
	Hardwood meranti					
9	19 x 60mm Skirting with 16 x 16mm Quadrant plugged and screwed to wall surface *(screws to be countersunk and recessed wo be filled with approved wood filler)*	m	281			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	DOORS, ETC					
	SOLID CORE FLUSH DOORS					
	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):					
10	40mm Single door 813 x 2040mm high (D04 - Refer to Architectural drawings PL-111_GK - REV A)	No	2			
11	40mm Single door 813 x 2040mm high with 845 x 290mm high fixed light glazed with 6,8mm clear safety glass (D05 - Refer to door schedule MB-DC-600_GF Door_Rev A)	No	1			
12	40mm Single door 813 x 2040mm high with 875 x 340mm high fixed light glazed with 6,8mm clear safety glass (D22 - Refer to door schedule MB-DC-602_GF Door_Rev A)	No	2			
13	40mm Single door 813 x 2040mm high (D21 & D25 - Refer to door schedule MB-DC-602 603_GF Door_Rev A)	No	10			
14	40mm Single door 813 x 2070mm high (D06 - Refer to door schedule MB-DC-600_GF Door_Rev A)	No	4			
15	40mm Single door 813 x 2060mm high (D11 - Refer to door schedule MB-DC-601_GF Door_Rev A)	No	2			
16	40mm Single door 813 x 2070mm high (D07 - Refer to door schedule MB-DC-600_GF Door_Rev A)	No	8			
17	40mm Single door 860 x 2040mm overall high with 860 x 2040mm high door leaf, 365 x 2040mm high side light and 1225 x 340mm high fixed light (D10a & D12 & D22 - Refer to door schedule MB-DC-601 & 602_GF Door_Rev A)	No	5			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
18	40mm Doubled door 1685 x 2040mm high with 1685 x 280mm high fixed light glazed with 6,8mm clear safety glass (D27- Refer to door schedule MB-DC-603_GF Door_Rev A)	No	2			
19	40mm Doubled door 1685 x 2040mm high with 1685 x 295mm high fixed light glazed with 6,8mm clear safety glass (D04 & D13 & D17 & D18 - Refer to door schedule MB-DC-601_GF Door_Rev A)	No	6			
20	Extra for 500 x 300mm opening for metal louvre unit (elsewhere measured)	No	13			
21	Extra for 500 x 600mm opening for metal louvre unit (elsewhere measured)	No	2			
	Purpose made solid hardwood door with a seal to restrict air fitted to each edge in a form of either foam or rubber comprehensible strip or fibrous seal					
22	Single door 725 x 2030mm high (D02 - Refer to Guardhouse Details PL-110_GH - Rev A)	No	2			
	Eva-Tewch composite decking panels or equal and approved Infinity Solid Profile size 23 x 140mm (5.8m lengths) to be screwed to steel door panel. 5mm horizontal gaps between decking panels. Detailed installation according to the strict recommendations of the manufacturer					
23	Single door 725 x 2030mm high (D01 - Refer to Guardhouse Details PL-110_GH - Rev A)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	SEMI-SOLID CORE FLUSH DOORS					
	Semi-solid panel door with hardwood concealed edge strip fitted with lock block to one edge clearly marked and finished both sides with hardwood veneer suitable for varnishing:					
24	40mm Single door 813 x 2040mm high (D09 - Refer to door schedule MB-DC-601_GF Door_RevA)	No	4			
25	Single door 815 x 2030mm high (D03 - Refer to Guardhouse Details PL-110_GH - Rev A)	No	2			
26	40mm Single door 1685 x 2040mm high (D19 - Refer to door schedule MB-DC-602_GF Door_RevA)	No	2			
27	Extra for 500 x 300mm opening for metal louvre unit (elsewhere measured)	No	2			
	FIRE DOORS					
	Fire doors with commercial veneer					
28	Varilux-Huet Club 39 or equal and approved timber acoustic fire rated door fire door 815 x 2040mm high including pressed steel frame for one brick wall and preparing frame for door closer and lock (D02 - Refer to door schedule MB-DC-604 _GF Door_Rev A)	No	1			
29	Class B double fire door 1685 x 2040mm high with two hour fire rating, with 1685 x 295mm high fixed light glazed with 6,8mm clear safety glass (D03 & D18 & D23 & D27 - Refer to door schedule MB-DC-600 & 601 & 602 % 603_GF Door_Rev A)	No	5			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN GYM AND GYM LOBBY LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
30	Flamingo medium black chair (Code: FLGM01BLK) Without arms Clutch mechanism.	No	1			
31	Lockers manufactured using 4mm, 8mm and 12mm Compact High Pressure Laminate, (code: CSCHPLL12D with 2 doors). Carcass manufactured using 4mm, 8mm and 12mm CHPL in white with doors in 12mm Compact High Pressure Laminate including auto return hinge (code: CSHNGFLCK) and D-shaped keep (code: CSCHPL/K) for individuals own padlocks, lock cover plate and handle (code: CSLCKNBNPLT) with numbering using 2mm Rowmark brushed aluminium rectangle discs and 100mm plinth 1800mm high x 300mm wide x 450mm deep lockers	No	17			
	THE FOLLOWING IN SECURITY BOOTH LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
32	Flamingo medium operator black chair (Code: FLGM01BLK) Without arms Clutch mechanism.	No	3			
33	Rickstacker chair with Black painted 4- legged frame Upholstered in Contract Black fabric	No	2			
34	Global systems cabinet or equal and approved systematised universal metal standard storage size 1100mm wide x 550mm deep x 1200mm high including hinged double doors and finished with Taormina Ash.	No	1			
35	Polybin Polypropylene waste bin size 240mm diameter x 260mm high colour black.	No	1			
	THE FOLLOWING IN KIOSK LOOSE FURNITURE					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
36	Flamingo medium operator black chair (Code: FLGM01BLK) Without arms Clutch mechanism.	No	2			
37	Rickstacker chair with Black painted 4- legged frame Upholstered in Contract Black fabric	No	2			
38	Global systems cabinet or equal and approved systematised universal metal standard storage size 1100mm wide x 550mm deep x 1200mm high including hinged double doors and finished with Taormina Ash.	No	2			
39	Polybin Polypropylene waste bin size 240mm diameter x 260mm high colour black.	No	1			
	THE FOLLOWING IN TICKET BOOTH & TICKET STORE LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
40	Flamingo medium black chair (Code: FLGM01BLK) Without arms Clutch mechanism.	No	2			
41	Polybin Polypropylene waste bin size 240mm diameter x 260mm high colour black.	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN RECEPTION, RECEPTION STORE AND RECEPTION LOBBY LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
42	Strong boy Seat public seating benches with back, arms & legs in silver painted with crossbeam painted in grey	No	1			
43	Soulmate medium back chair with synchronized mechanism in black nylon flexi arms and 5-star black nylon base and upholstered in contract black fabric	No	1			
44	Soul mate visitor's chair with black painted sleigh frame with upholstered in contract black fabric	No	2			
45	Benchwork single desk size 1600mm long x 700mm wide x 695mm high with black painted legs and intergrated cable tray with global worktop with cut-out for blade (code: DTPSC163B) scallop size 1600mm long x 750mm wide	No	1			
46	Metal filing cabinet size 470mm wide x 630mm deep x 1320mm high with hang rails and central locking system in colour black.	No	1			
47	Carpet protector misty clear in colour with rounded corners, mild leather grainto upper surface and non-slip under surface CPC1200CL – Curved Front	No	1			
48	Polybin Polypropylene waste bin size 240mm diameter x 260mm high	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN STAFF ROOM LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
49	STB Stainless dining base with appropriate stone look round top	No	1			
50	Trill monobloc stackable chair in reinforced fibreglass polypropylene with UV resistant and non-slip feet, nustart colour	No	7			
	THE FOLLOWING IN OFFICE1 & OFFICE 2 LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
51	Soul Mate High Back chair with synchronised mechanism, Black nylon Flexi arms, 5-Star black nylon base and Upholstered in Contract black fabric	No	2			
52	Soul Mate High Back painted sleigh frame with Upholstered in Contract black fabric	No	4			
53	Ecocentric lite 25mm Top including panel leg with 3No. drawer pedestal & modesty panel with 1000mm Open L-shaped extension with Left or right handed including drawer fronts & modesty in paired finish.	No	2			
54	Ecocentric lite 4-Tier hinged door cabinet size 900mm wide x 400mm deep x 1500mm high Including 3 x fixed timber shelves with wood grain carcass with hinge doors in paired finish	No	2			
55	Metal filing cabinet size 470mm wide x 630mm deep x 1320mm high with 4 Drawers including hang rails & central locking in Black painted finish	No	4			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
56	Carpet protector misty clear in colour with rounded corners, mild leather grainto upper surface and non-slip under surface CPC1200CL – Curved Front	No	2			
57	Polybin Polypropylene waste bin size 240mm diameter x 260mm high	No	2			
	THE FOLLOWING IN OFFICE 3 LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
58	Chancellor high back chair knee-tilt mechanism with Aluminium arms with leather-look padding, 5-Star polished aluminium base and Black leather-look upholstery	No	1			
59	Chancellor visitors chair chrome sleigh frame with black arm capping and Black leather-look upholstery	No	2			
60	Ecocentric lite 25mm Top including panel leg with 3No. drawer pedestal & modesty panel with 1000mm Open L-shaped extension with Left or right handed including drawer fronts & modesty in paired finish.	No	1			
61	Ecocentric lite 25mm Top including panel leg with 3No. drawer pedestal & modesty panel with 1000mm Open L-shaped extension with Left or right handed including drawer fronts & modesty in paired finish.	No	1			
62	Ecocentric lite 4-Tier hinged door cabinet size 900mm wide x 400mm deep x 1500mm high Including 3 x fixed timber shelves with wood grain carcass with hinge doors in paired finish	No	3			
63	Metal filing cabinet size 470mm wide x 630mm deep x 1320mm high with 4 Drawers including hang rails & central locking in Black painted finish	No	3			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
64	Carpet protector misty clear in colour with rounded corners, mild leather grainto upper surface and non-slip under surface CPC1200CL – Curved Front	No	1			
65	Polybin Polypropylene waste bin size 240mm diameter x 260mm high	No	1			
	THE FOLLOWING IN BOARDROOM LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
66	Urban Boardroom Table size 3200mm long x 1200mm wide x 725mm high with 25mm 2-Piece top laminated and black painted frame with recessed intermediate leg including cable trails (colour to match frame) for mounting beneath top	No	1			
67	Loop Dopo weight sensitive mechanism boardroom chair with 3D Arms, adjustable in height with pivot & sliding function with Black mesh back, 5-Star black nylon base, Upholstered in standard black fabric and NO HEADREST	No	10			
68	Key black painted sleigh frame additional seating with black arm capping, Moulded foam seat & back and Upholstered in Vulcan fabric	No	2			
69	Moon side table size 450mm diameter x 550mm high with 25mm top with steel round tube frame (Colour: Black)	No	1			
70	Coat and Hat Stand size 380 x 380 x 1800mm with wooden balls,	No	1			
71	Polybin Polypropylene waste bin size 240mm diameter x 260mm high	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN BOARDROOM WAITING LOBBY LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
72	Hilton Double Seater (Code: HT02AN) size 1520mm wide x 810mm deep x 760mm high Loose back & seat cushions with Steel frame in black painted finish and Upholstered in Tweed Anthracite fabric	No	1			
73	Hilton single Seater (Code: HT01AN) size 810mm wide x 810mm deep x 760mm high Loose back & seat cushions with Steel frame in black painted finish and Upholstered in Tweed Anthracite fabric	No	1			
74	Saddle Ottoman (Code: SD520) Fabric size 520mm diameter x 460mm high Black nylon bun feet with Genuine leather holding strap and Upholstered in Sub Silver paired with AragonAlter, Sub Silver paired with Aragon Fungus or Sub Brick paired with Aragon Castle	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN CHANGE ROOM 1 & 2 WAITING LOBBY LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
75	Coach Lockers size 1800mm high x 300mm wide x 450mm deep manufactured using 4mm, 8mm and 12mm Compact High Pressure Laminate, (code: CSCHPLLZ with Z-shaped door) with Carcass manufactured using 4mm, 8mm and 12mm CHPL in white, doors in 12mm Compact High Pressure Laminate (colour: to be confirmed).Ironmongery to include auto return hinge (code: CSHNGFLCK) and D-shaped keep (code: CSCHPL/K) for individuals own padlocks (no locking mechanism included), lock cover plate and handle (code: CSLCKNBNPLT). Lockers are numbered using 2mm Rowmark brushed aluminium rectangle discs including plinth 100mm and locker 1800mm, finishing height 1900mm.	No	2			
76	Team Lockers size 1800mm high x 300mm wide x 450mm deep manufactured using 4mm, 8mm and 12mm Compact High Pressure Laminate, (code: CSCHPLL4D with 4 door) with Carcass manufactured using 4mm, 8mm and 12mm CHPL in white, doors in 12mm Compact High Pressure Laminate (colour: to be confirmed).Ironmongery to include auto return hinge (code: CSHNGFLCK) and D-shaped keep (code: CSCHPL/K) for individuals own padlocks (no locking mechanism included), lock cover plate and handle (code: CSLCKNBNPLT). Lockers are numbered using 2mm Rowmark brushed aluminium rectangle discs including plinth 100mm and locker 1800mm, finishing height 1900mm.	No	8			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN MEDICAL ROOM LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
77	Flamingo medium operator black chair (Code: FLGM01BLK) Without arms Clutch mechanism including Optional fixed nylon arms, 5-Star black nylon base and Upholstered in Contract black fabric	No	1			
78	Rickstacker chair with Black painted 4- legged frame Upholstered in Contract Black fabric	No	2			
79	Benchwork Single Desk size 1400mm long x 700mm wide x 695mm high with black painted legs and integrated cable tray including global worktop with Cut-out for blade 1, Black Scallop (Code: GTPSC143B) size 1400mm long x 750mm wide (Left / Right Hand Power Socket to be confirmed), workstation to include modesty panel and screen	No	1			
80	Standard Hospital Bed size 1980mm long x 915mm wide mounted on rubber feet, manufactured in a white epoxy coated white mild steel, with a wire mesh mattress base. Manufactured from 32mm tubular (round bar) mild steel, epoxy coated in white powder coating. Wire Mesh Mattress Base (Mattress to be included). Bed to include castors to enable mobility	No	1			
81	Double Step, Stainless Steel Frame with Chequered top size 512mm long x 490mm wide x 400mm high manufactured from tubular steel construction with an Unpolished Steel finish with non-slip white non-marking rubber foot covers	No	1			
82	Medicare Bedside Cabinet size 810mm high x 450mm wide x 450mm deep with ABS Top standard laminate sealed off cabinet, Includes lightweight aluminium frame and white plastic top moulded to include spill proof lip. Order (Code: MHE-BCABST)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
83	Metal filing cabinet size 470mm wide x 630mm deep x 1320mm high with 4 Drawers made up of metal construction with hang rails & central locking with colour Black painted finish	No	2			
84	Lockers size 1800mm high x 300mm wide x 450mm deep manufactured using 4mm, 8mm and 12mm Compact High Pressure Laminate, (code: CSCHPLLZ with Z-shaped door). Carcass manufactured using 4mm, 8mm and 12mm CHPL in white, doors in 12mm Compact High Pressure Laminate (colour: to be confirmed).Ironmongery to include auto return hinge (code: CSHNGFLCK) and D-shaped keep (code: CSCHPL/K) for individuals own padlocks (no locking mechanism included), lock cover plate and handle (code: CSLCKNBNPLT). Lockers are numbered using 2mm Rowmark brushed aluminium rectangle discs. Numbering sequence to be confirmed. Plinth 100mm and locker 1800mm, finishing height 1900mm.	No	3			
85	Polybin Polypropylene waste bin size 240mm diameter x 260mm high	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN REF CHANGE ROOM LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
86	Coach Lockers size 1800mm high x 300mm wide x 450mm deep manufactured using 4mm, 8mm and 12mm Compact High Pressure Laminate, (code: CSCHPLLZ with Z-shaped door) with Carcass manufactured using 4mm, 8mm and 12mm CHPL in white, doors in 12mm Compact High Pressure Laminate (colour: to be confirmed).Ironmongery to include auto return hinge (code: CSHNGFLCK) and D-shaped keep (code: CSCHPL/K) for individuals own padlocks (no locking mechanism included), lock cover plate and handle (code: CSLCKNBNPLT). Lockers are numbered using 2mm Rowmark brushed aluminium rectangle discs including plinth 100mm and locker 1800mm, finishing height 1900mm.	No	3			
	THE FOLLOWING IN CLEANING STAFF ABLUTION LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
87	Ntegra Side stacker Chair (code: INT06BLK) Black moulded polypropylene shell	No	3			
	THE FOLLOWING IN MEDIA ROOM LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
88	Flamingo medium operator black chair (Code: FLGM01BLK) Without arms Clutch mechanism including Optional fixed nylon arms, 5-Star black nylon base and Upholstered in Contract black fabric	No	2			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
89	Metal filing cabinet size 470mm wide x 630mm deep x 1320mm high with 4 Drawers including hang rails & central locking in Black painted finish	No	4			
90	Carpet protector misty clear with curved front, size 1200mm long x 900mm wide in colour with rounded corners including mild leather grainto upper surface with non-slip under surface (Code: CPC1200CL)	No	2			
91	Polybin Polypropylene waste bin size 240mm diameter x 260mm high	No	1			
	THE FOLLOWING IN GROUNDSKEEPERS FACILITY ROOM LOOSE FURNITURE					
	Loose furniture as per attached specification and drawing at the back of these bills of quantities					
92	Rickstacker chair with Black painted 4- legged frame Upholstered in Contract Black fabric	No	3			
93	Benchwork Single Desk size 1600mm long x 700mm wide x 695mm high with black painted legs and integrated cable tray including global worktop with Cut-out for blade 1, Black Scallop (Code: GTPSC143B) size 1400mm long x 750mm wide (Left / Right Hand Power Socket to be confirmed), workstation to include modesty panel and screen	No	1			
94	Polybin Polypropylene waste bin size 240mm diameter x 260mm high	No	1			
	Carried to Collection			R		

Item No		Quantity	Rate	Amount R	
	JOINERY FITTINGS				
	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.				
	Carried to Collection		R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN GYM RECEPTION COUNTER					
	Joinery fittings as per attached specification and drawing (JN-801 MB - Rev A) at the back of these bills of quantities					
95	U-shaped reception counter overall size 4300mm girth x 1600mm high comprising of the following: 2No. size panels size 1600mm long x 350mm wide x 1000mm high and 1No. from panel size 1100mm long a 1000mm high framed with 38 x 38mm stained SAP frame, cladded with 16mm thick Melawood Supatexture (Treviso) board with 3No.16mm thick Melawood Supatexture (Treviso) Shelf on each panel and 32mm thick Life seal work top with all exposed edges with 100mm x 2mm thick aluminium kick plate. U-shaped counter screen over all size 2236mm long x 300mm high with 20 x 20mm hardwood timber slats spaced at 40mm c/c with 32mm thick formica Life seal work top (Black Slate)	No	1			
	Melawood supatexture (Treviso) cupboard doors					
96	16mm Thick Melawood Supatexture (Treviso) cupboard double door size 800 x 900mm including hinges and Matt black Barcelona Pull Handles size 160 x 27mm	No	1			
	THE FOLLOWING IN STRONG ROOM SHELVING					
	Strong room shelving as per attached specification and drawing (JN-800 MB - Rev A) at the back of these bills of quantities					
97	16mm Wrapped Melamine panel shelves exceeding 300mm wide	m2	16			
98	370mm long x 66mm high powder coated angle shelf bracket	No	90			
99	Powder coated wall upright bracket, single slotted rail	m	36			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN BATHROOM MIRRORS					
	Bathroom mirror as per attached specification and drawing (JN-800 MB - Rev A) at the back of these bills of quantities					
100	**40 x 40mm SAP Frame fixed to walls**	m	7			
101	150mm wide x 200mm high x 22mm thick MDF frame	m	7			
	THE FOLLOWING IN CHANGE ROOM SEATS					
	Change room seats as per attached specification and drawing (JN-800 MB - Rev A) at the back of these bills of quantities					
102	Seating bench comprising of 50 x 40mm hardwood timber slats spaced @ 55mm c/c with all top edges bullnosed 5mm radius fixed with and including 425 x 400 x 6mm thick heavy duty mild steel wall brackets spaced at 500mm centres	m	10			
	THE FOLLOWING IN STAFFROOM KITCHEN CUPBOARDS					
	Staffroom room kitchen cupboards as per attached specification and drawing (JN-803 MB - Rev A) at the back of these bills of quantities					
103	Floor cupboard formed of 32mm thick Melawood in demand range, size 2330mm long x 630mm wide x 900mm high with 32mm Fomica life seal work top, sides, bottom, division, shelf, back and 4No. of single hinged doors, dividing framework and 5 drawers including cut-out for sink hole (elsewhere measured)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN SLUICE ROOM CUPBOARDS					
	Sluice room cupboards as per attached specification and drawing (JN-803 MB - Rev A) at the back of these bills of quantities					
104	Sluice room cupboards size 815mm long x 525mm wide x 1895mm high formed of 16mm thick melawood, 4mm Masonite backing board with double doors, including 16mm thick bison melawood boards for shelves, 370mm long x 66mm high powder coated angle shelf bracket and Powder coated wall upright bracket, single slotted rail	No	1			
	THE FOLLOWING IN SECURITY ROOM & TICKET BOOTH FIXED FURNITURE					
	Sluice room cupboards as per attached specification and drawing (JN-802 MB - Rev A) at the back of these bills of quantities					
105	32mm Thick Fomica lifeseal work top (Black Slate) with bullnose edges on sides including 20 x 20mm hardwood timber beading, including 400 x 450mm powder coated heavy duty stayed bracket at 500mm c/c (Refer to Architects drawing No.21-100-Frankfort_JN-802 MB)	m2	12			
106	16mm Thick Melawood Supatexture (Treviso board)	m2	1			
107	10 x 10mm Aluminium U-Channel shadow strip	m	4			
108	220 x 12 SAP Plank Spacer	m	4			
109	400 x 450mm Heavy duty stayed bracket, powder coated	No	67			
	Carried to Collection				R	

Item No			Quantity	Rate	Amount R	
	THE FOLLOWING IN STADIUM SEATING					
	Rodlin design or equal and approved					
110	Stadium and Arena polypropylene injection moulded seats, with UV and flame-retardant properties fixed directly to the concrete step.	No	507			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 6

Carpentry & Joinery

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Section No. 2

BUILDINGS

Bill No. 6

Carpentry & Joinery

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Item No		Unit	Quantity	Rate	Amount R	
	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 to Collection**			R		

Item No		Unit	Quantity	Rate	Amount 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** Factorylite of equal and approved insulation					
1	100mm Thick non-combustible lightweight building insulation with reinforced white metallised foil facing on one side with thermal resistance of 3.46m2.K/W and overlapping foil edges to be stapled together. Install as per manufacturer's specifications	m2	940			
2	135mm Thick non-combustible lightweight building insulation with reinforced white metallised foil facing on one side with thermal resistance of 3.46m2.K/W and overlapping foil edges to be stapled together. Install as per manufacturer's specifications	m2	826			
	NAILED UP CEILINGS "Factoryboard" or equal approved 50mm thick rigid non-combustible lightweight aesthetical multi-purpose over purlin system of (80) kg/m3 density with white embossed vinyl . Install with saddles in over purlin installation all strictly in accordance to manufacturer's details and specification					
3	Sloping ceilings including brandering	m2	940			
	Carried to Collection			R		

Item No		Unit	Quantity	Rate	Amount R	
	6mm Fibre Cement External Eaves Ceiling					
4	Ceilings including SAP brandering	m2	30			
	15mm Thick fibre cement panels					
5	Ceilings including SAP brandering	m2	29			
	Rhino gypsum plasterboard cornices					
6	75mm Coved cornices	m	108			
	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)					
	600 x 600 x 15mm Acoustic Constellation or equal and approved premium biologically absorbable mineral wool ceiling tiles in compliance with NRC - 0.70, with Reveal-edge and white painted finish laid on fire rated OWAconstruct S3a exposed demountable T24 suspension system comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm, all installed to manufacturer's instructions.					
7	Ceilings suspended not exceeding 1m below steel purlins	m2	164			
	Carried to Collection			R		

Item No		Unit	Quantity	Rate	Amount R	
	600 x 600 x 12.5mm thick Vinyl Faced Gypsum Ceiling Panels, face-covered with white embossed vinyl laid on fire rated OWAconstruct S3 exposed demountable Butt-cut T24 suspension system including galvanised main tees, cross tees, etc., all suspended with galvanised hangers at centres not exceeding 1200mm and all installed to manufacturer's instructions.					
8	Ceilings suspended not exceeding 1m below steel purlins	m2	228			
	1200 x 600 x 15mm Acoustic Constellation or equal and approved premium biologically absorbable mineral wool ceiling tiles in compliance with NRC - 0.70, with Reveal-edge and white painted finish laid on fire rated OWAconstruct S3a exposed demountable T24 suspension system comprising galvanised main tees and cross tees with main tees suspended by means of galvanised hangers at centres not exceeding 1200mm, all installed to manufacturer's instructions.					
9	Ceilings suspended not exceeding 1m below steel purlins	m2	361			
	1200 x 600 x 12.5mm thick Vinyl Faced Gypsum Ceiling Panels, face-covered with white embossed vinyl laid on fire rated OWAconstruct S3 exposed demountable Butt-cut T24 suspension system including galvanised main tees, cross tees, etc., all suspended with galvanised hangers at centres not exceeding 1200mm and all installed to manufacturer's instructions.					
10	Ceilings suspended not exceeding 1m below steel purlins	m2	43			
	OWAconstruct or equal and approved shadowline cornices					
11	W-trim cornices plugged and screwed at centres not exceeding 200mm	m	732			
	Carried to Collection			R		

Item No		Unit	Quantity	Rate	Amount R	
	CUBICLE SOLUTIONS OR EQUAL AND APPROVED TOILET PARTITIONS					
	Manufacture, delivery and installation of toilet cubicles manufactured using 12mm Compact High Pressure Laminate or 12mm Compact Density Fibre Board (colour: standard stock colour range), in Cube-Standard Overlap (code: CSCHPLCSO / CSCDFBCSO). This is a modular, frameless system with supporting powder coated aluminium head rail, (powder coating colours: Charcoal / New Silver), floor anchored with adjustable supporting feet (code: CS13FT150), and bracketed to walls and pilasters using stainless steel brackets (code: CS3X10HLCRNBKT).					
12	Partition 1800 x 1935mm high	No	6			
13	Mid stile 250 x 1935mm high	No	7			
14	End stile 125mm x 1935mm high	No	2			
15	For manufacture, delivery and installation of toilet cubicles manufactured using 12mm Compact High Pressure Laminate (colour: (x2) colours extra over - acc. to the Architect), in Cube-Exclusive Range 1 (code CEx1/304). This is a modular, frameless system with overhead brace and hanging clamp (code CSSH01/316/13), floor anchored with adjustable supporting feet (code CSSF01/316/13), and bracketed to walls and pilasters using stainless steel brackets (CSSBr01/304).	No	8			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 7

Ceilings, Partitions and Access Flooring

COLLECTION

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Item No		Quantity	Rate	Amount R	
	BILL NO. 8				
	FLOOR COVERINGS, PLASTIC LININGS, ETC.				
	FLOOR COVERINGS				
	2mm Thick Palettone PUR flexible PVC sheet flooring or equal approved homogeneous and monolayer in construction, non-directional design, incorporating a specially formulated polyurethane reinforcement, to significantly reduce tenance costs, conforming fully with the requirements of EN 649/EN ISO 10581 The flooring shall be applied to an area classification of 23/34/43, as defined in EN 685/EN ISO 10874, in respect of flame spread. The flooring shall have been fully tested to EN 13501-1 and certified as having Class Bfl-S1, fully tested to ASTM E648 and certified as having passed with a Class 1 rating, making it suitable for use in institutional, commercial and public building. The floor must have been fully tested for abrasion resistance to the Frick Taber test EN 660-2 and be in abrasion group T, as defined in EN 649, with regards to EN ISO 10581 the product shall be classified Type I. The product must possess a valid Agreement certificate when laid in accordance with the instructions of Polyflor or equal and approved, using the correct adhesive all with coved skirtings and matching welded joints available in 2.0 metre width, to minimise the number of joints. +/- 15% additional provision to be made for cut and welded vinyl pattern insertion in main vinyl sheeting				
1	To floors	m2	236		
	Carried to Collection			R	

Item No			Quantity	Rate	Amount R	
2	Turn-ups over coves and up against walls not exceeding 00mm girth 2mm Thick x 2000mm wide XL PU Group M homogeneous & monolayer marbleised design vinyl sheeting or equal and approved manufactured in accordance with EN 649/ISO 10581. The flooring shall be laid in Polyflor or equal and approved acrylic adhesive which has been spread using an A2 notched trowel on a previously prepared Class 1 sub-floor with a 50mm below surface drilled moisture content reading of 75%RH in accordance with SANS 10070, using Polyflor approved self-levelling screed (elsewhere measured) 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, joins must be butted, U-shape grooved 2/3rds thickness of the sheet and heat welded using the manufacturer's welding rod, maintenance according to the manufacturers maintenance programme.	m	223			
3	To floors	m2	95			
4	Turn-ups over coves and up against walls not exceeding 300mm girth	m	120			
	Carried to Collection			R		

Section No. 2
BUILDINGS
Bill No. 8
Floor Coverings, Plastic Linings, etc.
Tender Bills of Quantities
Independent Development Trust (IDT)

Item No			Quantity	Rate	Amount R	
	6,7mm Thick fully flexible PVC sheet flooring made up of a surface wear layer which shall be homogeneous and monolayers in construction, glass fibre reinforcement and closed cell foam layer. The flooring shall be glass fibre reinforcement and closed cell foam layer and must be classified abrasion group T available in 2 meter length ans installed with approved adhesive which has been spread using an A2 notched trowel on a previously prepared class 1 sub-floor with a 50mm below surface drilled moisture content reading of 75% RH in accordance with SANS 10070, including all cutting reading of 75% RH in accordance with SANS 10070, including all cutting and waste joints must be heat welded using the manufacturer's matching welding rod and all installed according to manufacturer's specifications.					
5	To floors	m2	682			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	608 x 608mm x 2mm Polyflor SD Group M homogeneous & monolayer vinyl sheeting/tiles or equal and approved with static dissipative properties The flooring shall be manufactured in accordance with and conforming to the requirements of EN 649, in respect of flame spread, the flooring shall have been fully tested to EN 13501-1 and certified as having Class Bfl-S1, achieving the criteria EN ISO 9239-1 =8kw/m2 and the mandatory requirement of EN ISO 11925-2 pass, tested to ASTM E648 and certified as having passed with a Class 1 rating, making it suitable for use in institutional, commercial and public buildings.The flooring to be suitable for commercial areas with very heavy use; and light industrial areas with heavy use, and laid in Polyflor approved acrylic adhesive which has been spread using an A2 notched trowel on a previously prepared Class 1 sub-floor with a 50mm below surface drilled moisture content reading of 75% RH in accordance with SANS 10070, using Polyflor approved self-levelling screed when required, 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, joins must be butted, U-shape grooved 2/3rds thickness of the sheet and heat welded using the manufacturer's welding rod, maintenance according to the manufacturers PUR maintenance programme. Floor finish junctions to receive aluminium transition trim. Sheeting to have neatly welded joints. All to be installed by certified specialist contractor.					
6	To floors	m2	9			
7	Turn-ups over coves and up against walls not exceeding 300mm girth	m	23			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	600 x 600mm x 3mm thick Polyflor Ecore's ECOsurfaces Classic or equal and approved non-laminated rubber surfac manufactured from a formulation of high quality post-consumer recycled rubber granules encapsulated in a wear and water-resistant elastometric network with multiple coloured reprocessed Colorm Mill EPDM rubber					
8	To floors The following flooring's classification must be at least 23/32/41 for 3.0mm commercial areas with general traffic use and light industrial areas with moderate use, with studs of diameter 28,5mm at the base and 0.5mm in respect of flame spread, the flooring shall have been fully tested to EN13501-1 and certified as having class Cfl-S1. The flooring material must be resistant cigarette burns as classified by EN 1399. The flooring shall be classified as DS, making it suitable for use in dry areas all laid with the correct adhesive and installed according to the manufacturer's specification's	m2	55			
	500 x 500 x 3mm thick High-grade synthetic rubber tile, Noppe Stud 500 x 500mm in 3.0mm thickness with low profile circular studs with slip resistance and easy maintenance conforming fully with the requirements of EN 12199.					
9	To floors 500 x 500mm Belgotex Berber Point 920 or equal and approved heavy duty commercial carpet tiles manufactured from stain proof miracle fibre (Polypropylene) laid in accordance with SANS 10186 fitting code practice The carpet tiles to be installed in tessellated format only	m2	143			
10	On floors	m2	84			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Heavy duty commercial broadloom stretch with appropriate quality carpet under felt according to the manufacturers specification and recommendations					
11	On floors	m2	16			
	10mm Coba Africa PLan A or equal and approved entrance matting with aluminium rails, PVC connection strips, Econy regenerated nylon inlays					
12	On Floors	m2	8			
	SKIRTINGS, NOSINGS, ETC					
	Polyflor or equal and approved					
13	Capping strip (Code: CS48)	m	366			
14	Cove former (Code: PC20)	m	366			
15	Fully flexible MC17C set in coving 100 x 70mm with joints welded with matching welding rod and to use cover filler PC20 behind the skirting	m	133			
	M-Trim					
16	19 x 10 x 2,5mm Stainless steel carpet gripper transition to tile	m	7			
	Kirk M-Trim or equal and approved					
17	75mm x 27mm x 2,5m Natural Anodised double Stair Nosing Supplied with two black ridged infill which are pushed into channels Base can be screw fixed before fitting infill with two black ridged PVC infill.	m	398			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 8

Floor Coverings, Plastic Linings, etc.

COLLECTION

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Item No			Quantity	Rate	Amount R	
	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					
	Dormakaba or equal and approved					
1	Disabled WC indicator (Red & White) and turn knob for physically impaired (Code: DWC-006)	Pairs	33.0			
2	Stainless steel Adjustable Roller Bolt (Code: DBC-SS-022)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	CATCHES, CABIN HOOKS, ETC					
	Dormakaba or equal and approved					
3	Stainless Steel Hat and Coat Hook with rubber buffer (Code: DHC-SS-031B)	No	33			
	Franke or equal and approved					
4	Wall/ door mountable stainless steel coat hook, size 18mm wide x 38mm high x 60mm deep (Code: STRX692)	No	16			
	LOCKS					
	Dormakaba or equal and approved					
	The following locks are to be suitable for master key operation					
5	Stainless Steel Cylinder Deadlock with case size 116,5mm high x 78mm deep and Forend size 168mm high x 22mm wide and Backset size 57mm (Code: D037D SS).	No	13			
6	65mm Satin Nickel five pin Euro-profile Double Cylinder Key to Differ (Code: DDC056501 KD)	No	26			
7	Stainless steel Round Cylinder escutcheon (Code: DCE-002 S.S)	Pairs	13.0			
8	Bathroom Deadlock with case 102mm high x 78mm deep and forend size 155mm high x 22mm wide and Backset size 57mm (D032D SS)	No	33			
9	Nickel plated 42mm five pin Euro-profile Single Cylinder Key to Differ (Code: DSC054201 KD)	No	14			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
10	Stainless steel cylinder sash lock with case size 116.5mm high x 78mm deep and forend size 168mm high x 22mm wide, including backset size 57mm and centres 61mm (Code: D036S SS)	No	12			
11	Narrow stile cylinder escutcheon (Code: DCE-105 S.S)	Pairs	2.0			
12	Stainless steel narrow stile roller dead lock with case size 174mm high x 41mm deep and Forend size 238mm high x 22mm wide and Backset 35mm (Code: D07935 SS)	No	2			
	HANDLES					
	Dormakaba or equal and approved					
13	DPH301C Pull Handle BT fixed Left on a 200mm x 813mm x1.2mm thick Grade 430 stainless steel plate (elsewhere measured) with no cylinder cut-out (Code: DHPL-430-BL-SF 200 x 813mm)	No	27			
14	Satin Nickel Exterior access lock with lever handle (Cylinder not included) (Code: PHT3901)	No	13			
15	Stainless steel 325x25mm Straight Tubular Pull Handle Flange Fixing (Code: DPH301B)	No	6			
16	Stainless steel Lever handle on rose with Cylinder escutcheons (Code: TH125 CYL S.S)	Pairs	8.0			
17	Stainless steel Lever handle on narrow stile rose with stile Cylinder escutcheons (Code: TH125 CYL S.S)	Pairs	4.0			
18	Two point locking panic bar for single door with door leaf 1000mm wide x 2270mm high (3102. PHX02. PHX04) (Code: PHB2 SS D)	Pairs	1.0			
19	Three point locking panic bar for double door with door leaf 1000mm wide x 2270mm high each (3101. 3102. PHX02. PHX04) (Code: PHB3 S DD)	Pairs	11.0			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
20	Three point locking panic bar for double door with door leaf 1000mm wide x 2270mm high each (2101. 2104. 2104. 2201. 2201. PHX02. PHX04) (Code: PHA3 S DD)	Pairs	1.0			
21	Stainless steel 400 x 30mm Offset Tubular Pull Handle BT to comply with BS 8424. Grade 3 - Heavy Duty (Code: DPH206 BT)	No	4			
	Carried to Collection			R		

Section No. 2
BUILDINGS
Bill No. 9
Ironmongery
Tender Bills of Quantities
Independent Development Trust (IDT)

Item No			Quantity	Rate	Amount R	
	PUSH PLATES AND KICKING PLATES					
	Dormakaba or equal and approved					
22	200mm High x 813mm wide x 1.2mm thick Grade 430 stainless steel kick plate with have 10 countersunk holes for screw fixing (Code: DKP-430-SF 200 x 813)	No	184			
23	200mm High x 813mm wide x 1.2mm thick Grade 430 stainless steel kick plate with have 10 countersunk holes for screw fixing (Code: DPP-430-BL-SF 200 x 813)	No	27			
	DOOR CLOSERS					
	Dormakaba or equal and approved					
	The following door closer to be compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120, MM/IMM 240. Certified manufacturer to ISO 9001.					
24	Silver non-hold open cam action slide channel door close with closing force EN 3 Hydraulic speed control with Pull-side door leaf fixing (Standard), Push-side transom fixing (Code: TS91B - SL)	No	10			
25	Silver non-hold-open cam action slide channel door closer. with Closing Force EN 2- 4V Adjustable strength Hydraulic speed control. Pull- side door leaf fixing (Standard), Push-side transom fixing (Code: TS92B - SL)	No	25			
26	Silver non-hold-open cam action slide channel door closer with Closing Force EN 2- 4V Adjustable strength Hydraulic speed control. Pull- side door leaf fixing (Standard), Push-side transom fixing (Code: TS92G - SL)	No	6			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
27	Silver EN 2-4 Parallel Arm Delayed Action Door Closer with Push Side Fixing (Parallel Arm Bracket Included) EN2 750-850, EN3 850-950, EN4 950-1100 (Code: TS73V PA DC - PAB - SL)	No	3			
	LETTERS, NAMEPLATES, ETC					
	Dormakaba or equal and approved					
28	Stainless steel 150 x 150mm Male / Female sign (Code: DSS-150 MF)	No	3			
29	Stainless steel 150 x 150mm Male sign (Code: DSS-148 MF)	No	3			
30	Stainless steel 150 x 150mm Female sign (Code: DSS-149 F)	No	3			
31	Stainless steel 150 x 150mm Disabled sign (Code: DSS-151 P)	No	3			
	BATHROOM FITTINGS					
	Dormakaba or equal and approved					
32	Stainless steel 800 x 206mm Cistern Back Rail (Code: DGR-SS-150)	No	3			
33	Stainless steel 300 x 300 x 300mm Side Grab Rail (Code: DGR-SS-152)	No	3			
	Franke or equal and approved					
34	Stratos STRX616 1,2/1,5mm thick satin finished stainless steel foam dispenser (Code: 2120047), size 100 x 134 x 304mm high with a replaceable and refillable 1 litre container, cylinder lock with standard Franke key, plugged and screwed to the wall with stainless steel screws	No	28			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
35	Stratos STRX600 1,2/1,5mm thick satin finished stainless steel paper towel dispenser (Code: 359700), size 300 x 134 x 305mm high with a capacity of 300-400 towels and cylinder lock with standard Franke key, plugged and screwed to the wall with stainless steel screws.	No	19			
36	Stratos STRX605 1,2/1,5mm thick satin finished stainless steel waste bin (Code: 359730), size 300 x 270 x 520mm high, capacity of 34 litres and cylinder lock with standard Franke key, plugged and screwed to the wall with stainless steel screws.	No	11			
37	Stratos STRX672 1,2/1,5mm thick satin finished stainless steel double toilet roll dispenser (Code: 359716), size 156 x 141 x 303mm high for 2 rolls maximum 108mm diameter with spindle system and cylinder lock with standard Franke key, plugged and screwed to the wall with stainless steel screws.	No	27			
38	Stratos STRX611 surface mounted sanitary towel disposal bin, manufactured from Grade 304 1.2/1.5mm stainless steel, satin finished with surface treatment - InoxPlus (anti fingerprint). (Code: 2120050), size 205 x 134 x 305mm Disposal bin incorporates a plastic container with a 3.8l capacity and has stainless steel piano hinge, includes mounting kit	No	13			
39	Cistern & flush valve back rail manufactured from Grade 304 stainless steel, satin finish to prevent slipping with dia. 32mm, size 750 x 260mm (Code: CNTXBR), to include screws & dowels	No	4			
40	Grab rail with FFG-surface (Franke fine Grip) manufactured from 18/10 stainless steel (Code CNTX700A). Diameter 31.8mm; certified. Screws and dowels included	No	4			
41	Grab rail manufactured from Grade 304 stainless steel, satin finish to prevent slipping, with dia of 31.8mm. To include screws and dowels, size 750 x 95mm (Code: CNTX750)	No	4			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
42	Stainless steel mirror manufactured Grade 304 1mm thickness, size 400 x 300 x 1mm, high polished 4 drillings (Code: CHRH401)	No	12			
	Bathroom Butler or equal and approved					
43	Stainless steel double towel rail manufactured from GRADE 304 stainless steel, size 673mm wide x 135mm deep x 48mm high (Code:4682) (Finish: Brushed)	No	16			
44	Shower rack manufactured from GRADE 304 stainless steel, size 378mm wide x 130mm deep x 79mm high (Code: 4620) (Finish: Brushed)	No	16			
	SUNDRIES					
	Dormakaba or equal and approved					
45	NIckel plated Floor Mounted Door Stop (Code: DDS-NP-018)	No	59			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC					
	Van Dyck Carpets or equal and approved					
46	Pinning board made from 100% PFX Stain shield staple fibre or similar approved, encased in MDF 16mm panel framework to be Duco spray painted	No	8			
	Vitraflex or equal and approved vertical wall writing pannels					
47	Light guage panels (C-Type or Composite panel)	m2	10			
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Section No. 2

BUILDINGS

Bill No. 9

Ironmongery

COLLECTION

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Item No		Unit	Quantity	Rate	Amount R	
	BILL NO 10					
	STRUCTURAL STEELWORK					
	SUPPLEMENTARY PREAMBLES					
	Descriptions					
	Descriptions of bolts shall be deemed to include nuts and washers					
	Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete					
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete					
	STEEL COLUMNS AND BEAMS					
	Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to steel rafters.					
1	254 x 146 x 31mm x 31.3kg/m I-section stub columns	t	1.24			
	Welded beams in single lengths with flat section bearer and connection plates bolted to steel columns					
2	200 x 75 x 25mm x 25.3kg/m PFC-section false rafter	t	1.29			
3	305 x 165 x 41mm x 40.5kg/m I-section rafter	t	0.23			
	Bolts to columns, beams, etc					
4	M20 Grade 8.8 bolts J Anchor bolts with minimum anchor length of 750mm	t	2.16			
	Carried to Collection			R		

Item No		Unit	Quantity	Rate	Amount R	
	Sundries :					
5	20mm Steel plate welded into angle iron (angle iron elsewhere measured)	t	0.33			
6	25mm Thick x 350 x 250mm "ABE Durabed NF" grout bedding on concrete support under steel baseplate (concrete and baseplate elsewhere)	No	18			
	STEEL TRUSSES ETC					
	Welded roof trusses of angle section rails, struts, braces, cleats, etc and flat section bearer, gusset and connection plates bolted to steel					
7	8 No. Welded lattice trusses with top and bottom chords, 24.48m span x 2m high, approximately 7m above surface bed. (Refer to Engineer's Drawing No. 34552S-211-02: Truss Type: T1)	t	13.94			
8	1 No. Welded lattice trusses with top and bottom chords, 20.32m span x 2m high, approximately 7m above surface bed. (Refer to Engineer's Drawing No. 34552S-211-02: Truss Type: T2)	t	1.43			
9	11 No. Welded lattice vertical trusses with top and bottom chords, 3.72m span x 1,08m high extreme, approximately 7m above surface bed. (Refer to Engineer's Drawing No. 34552S-211-02: Truss Type: T3)	t	3.03			
	Bolts to trusses etc					
10	M12 Grade 8.8 bolts	t	1.06			
11	M16 Grade 4.8 bolts	t	1.11			
	Carried to Collection			R		

Item No		Unit	Quantity	Rate	Amount R	
	PURLINS, GIRTS, BRACING, ETC					
	Purlins and girts bolted to steel					
12	250 x 75 x 20 x 2.5mm x 8.31kg/m CFLC Purlins	t	7.90			
	Welded bracing etc with flat section connection plates bolted to steel					
13	75 x 50 x 20 x 2.5mm x 2.96kg/m CFLC Sag bars with 4mm end plates	t	0.80			
14	70 x 70 x 6mm x 6.38kg/m Angle cross bracing	t	2.00			
15	60 x 60 x 5mm x 4.57kg/m Angle knee bracing	t	1.22			
	SUNDRIES					
16	6mm Steel plate welded into angle iron (angle iron elsewhere measured)	t	1.00			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 10

Structural Steelwork

COLLECTION

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Item No			Quantity	Rate	Amount R	
	BILL NO. 11					
	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					
	MENTIS INTER-LINK BALL TYPE OR EQUAL AND APPROVED TUBULAR RAILING SYSTEM					
	The following in zinc chromate primed steel balustrading as described:					
1	42,9mm Diameter x 2,5mm thick Ball type tubular welded construction stanchion (1020mm high) with one end fixed in concrete including baseplate, screws, rubber ends plugs, etc. (In No. 28) (Refer to Architect's drawings DT-401 MB_BLSTDE-REV A)	m	29			
2	34,1mm Diameter x 2,5mm thick tubular handrail tubing top and intermediate rails. (Refer to Architect's drawings DT-401 MB_BLSTDE-REV A)	m	31			
3	60 x 60 x 6mm x 5,42kg/m Angle corner protector (Refer to Architect's drawings DT-401 MB_BLSTDE-REV A)	t	0.03			
4	Extended hand rail code: 2B (Refer to Architect's drawings DT-401 MB_BLSTDE-REV A)	No	3			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
5	Harmer drive screw (Reference: item 11)	No	56			
6	35mm Diameter solid peg (Reference: item 12)	No	56			
7	Rubber end plug (Reference: item 10)	No	5			
	The following in zinc chromate primed steel Handrail as described:					
8	38mm Diameter x 3mm thick mild steel circular hollow	m	32			
9	50mm Diameter x 3mm thick mild steel pipe Handrail	m	18			
10	Knee 50mm x 3mm thick mild steel pipe handrail to (In No.5)	m	5			
11	Handrail bracket with 19mm diameter mild steel posts x 84mm long with 80 x 40 x 8 mm plate welded on, four times holed for 10 mm diameter bolt (elsewhere measured).	No	32			
12	Handrail bracket with 12mm diameter mild steel round bar bent to curve posts x 80mm long with 3mm thick bent plate and 50mm diameter thick wall plate welded on, four times holed for 10 mm diameter bolt (elsewhere measured) (Refer to Architect's drawings DT-401 MB_BLSTDE-REV A)	No	18			
13	Stop end.	No	6			
14	Mild steel dome caps	No	10			
15	Cut hole through 3 mm thick mild steel for 20 mm diameter bar (elsewhere measured).	No	64			
16	10 x 75 mm Expanding bolt including fixing to concrete or brickwork.	No	64			
	WELDED SCREENS, GATES, ETC					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Screens and gates					
17	Single gate 875 x 2040mm high of 35 x 35mm mild steel tubing outer frame and 35 x 35mm angle section inner frame welded to outer frame, filled in with Steledale or equal and approved specimesh fixed all round to inner frame with 50 x 100 x 3,15 apeture (code: M190) neatly welded to interior face of screen fitted with a pair of suitable hinges welded to post and lockable sliding bolt with keep in gate post	No	1			
18	Single gate 1030 x 1615mm high of 35 x 35mm mild steel tubing outer frame and 35 x 35mm angle section inner frame welded to outer frame, filled in with Steledale or equal and approved specimesh fixed all round to inner frame with 50 x 100 x 3,15 apeture (code: M190) neatly welded to interior face of screen fitted with a pair of suitable hinges welded to post and lockable sliding bolt with keep in gate post	No	2			
	PRESSED STEEL DOOR LININGS					
	30 x 30 x 2mm Mild steel square tube framework suitable for one brick wall for:					
19	Door, size 725 x 2030 mm high.	No	1			
	1,2 mm Thick single rebate door lining suitable for half brick wall for:					
20	Door, size 815 x 2030 mm high.	No	6			
21	Door, size 813 x 2030 mm high.	No	8			
	1,2 mm Thick double rebate door lining suitable for one brick wall for:					
22	Door size 813 x 2030 mm high	No	5			
23	Door size 815 x 2030 mm high	No	4			
24	Door size 813 x 2040 mm high	No	2			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
25	Door size 845 x 2030 mm high with 845 x 290 mm high fanlight over.	No	3			
26	Door size 1625 x 2040 mm high.	No	1			
27	Door size 1625 x 2040 mm high with 1685 x 295 mm high fanlight over.	No	4			
28	Door size 1625 x 2040 mm high with 1625 x 305 mm high fanlight over.	No	5			
29	Door size 1685 x 2040 mm high with 1685 x 295 mm high fanlight over.	No	2			
30	Door size 1685 x 2040 mm high with 1685 x 280 mm high fanlight over.	No	3			
	Galvanised iron pressed steel doors and linings:					
31	Transformer room door and frame size 1525 x 2465 mm high (D26)	No	1			
	Steel Louvre doors manufactured from 1,6mm mild steel skins, folded and mechanically fixed to form a rigid 45mm thick door leaf					
32	Double door 1830 x 2115mm high (D01 - Refer to Architect's drawing PL-111_GK - Rev A)	No	2			
	ROLLER SHUTTER DOORS					
	Roller shutter doors					
33	Manually chain operated roller shutter door for opening 3000 x 2380mm high with galvanised steel fenestra slats with polycabonate inserts and sprocket reduction gears fitted with spring loaded barrel (D02 & D24 - Refer to door schedule MB-DC-600_GF Door_Rev A)	No	4			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
34	Manually chain operated roller shutter door for opening 3600 x 3140mm high with galvanised steel fenestra slats with polycabonate inserts and sprocket reduction gears fitted with spring loaded barrel (D01 - Refer to door schedule MB-DC-600_GF Door_Rev A)	No	4			
	BRASS					
	Brass					
35	6 x 25 mm Water bar set flush between different floor finishes.	m	40			
	SUNDRY ALUMINIUM WORK					
	Custom Interpon or equal and approved powder coated aluminium door frames suitable for half brick wall					
36	Door size 1225 x 2380mm high overall with 1225 x340 mm high fanlight over and 365 x 2040mm high fixed light .	No	4			
	Custom Interpon or equal and approved powder coated aluminium door frames suitable for one brick wall					
37	Door size 1225 x 2380mm high overall with 1225 x340 mm high fanlight over and 365 x 2040mm high fixed light .	No	1			
	STEEL STRONGROOM DOORS, VENTILATORS, ETC					
	Bitcon or equal and approved category 2 strong room strongroom doors suitable for 230mm walls fixed to brickwork or concrete					
38	Strong room door and frame 815 x 2040mm high overall with a mass of 590kg	No	1			
	POWDER COATED ALUMINIUM LOUVRE UNITS					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Non-adjustable vertical louvre units consisting of 120 x 80 x 10mm wall plate fixed to wall & welded to flat br, 60 x 10mm flat bar, louvre blades in fixed position at 32 degrees, 200 x 50mm Aerofoil profile spaced at 200mm c/c, 15 x 15mm vertical SQ bars welded to flat and 15 x 15mm horizontal SQ bars welded between bars spaced at 200mm c/c fixed to wall.					
39	Louvre unit for 3880 x 1950mm high opening	No	9			
40	Louvre unit for 4554 x 1415mm high opening	No	2			
	Louvre panels screwed into timber doors					
41	Panel 500 x 300mm high	No	17			
42	Panel 500 x 600mm high	No	2			
	Non-adjustable horizontal SL-70 Louvre system with 100 x 50 x 5,25mm RHS frame, 70 x 50 x 3mm angle iron and wall plate fixed to wall					
43	Louvre unit for 633mm wide high opening	No	2			
	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					
	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					
	Carried to Collection			R		

Item No		Quantity	Rate	Amount R	
	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" 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				
	Carried to Collection		R		

Item No		Quantity	Rate	Amount R	
	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 The specific purchasing conditions contained in SANS 1796 shall be deemed to be incorporated in this specification **Carried to Collection**		R		

Item No		Quantity	Rate	Amount R	
	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 to Collection		R		

Item No		Quantity	Rate	Amount 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 to Collection		R		

Item No		Quantity	Rate	Amount 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 to Collection**		R		

Item No		Quantity	Rate	Amount 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 to Collection		R		
	Section No. 2 **BUILDINGS** **Bill No. 11** **Metalworks** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***				

Item No		Quantity	Rate	Amount 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 to Collection**		R		

Item No		Quantity	Rate	Amount 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 to Collection		R		

Item No			Quantity	Rate	Amount 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** Custom Interpon or equal and approved powder coated aluminium windows glazed with 6,38mm clear bullet proof safety glass and plugged to brickwork or concrete					
44	Window 2675 x 1100mm high with 1No. Top Hung Pane and 3No. fixed pane (W03) (drawing No PL-110_GH - REV A)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Custom Interpon or equal and approved powder coated aluminium windows glazed with 6,38mm laminated Opaque safety glass and plugged to brickwork or concrete					
45	Window 600 x 415mm high with 1No. Top Hung Pane (W01) (drawing No PL-110_GH - REV A)	No	1			
	Qualicoat or equal and approved powder coated aluminium windows glazed with 4mm monotholic annealed Opaque glass and plugged to brickwork or concrete					
46	Window 509 x 595mm high with 1No. Top Hung Pane including aluminium factory fitted burglar bars provided for opening sections (W01) (drawing No PL-111_GK - REV A)	No	3			
47	Window 510 x 850mm high with 1No. Top Hung Pane and 1No. Fixed pane (W06) (drawing No MB-WC-500_GF WIN - REV A)	No	32			
48	Window 1100 x 850mm high with 2No. Top Hung Panes and 1No. Fixed pane (W05) (drawing No MB-WC-500_GF WIN - REV A)	No	3			
49	Window 1100 x 1125mm high with 2No. Top Hung Panes and 2No. Fixed pane (W15) (drawing No MB-WC-501_GF WIN - REV A)	No	2			
50	Window 1215 x 510mm high with 2No. Top Hung Panes (W16) (drawing No MB-WC-502_GF WIN - REV A)	No	2			
51	Window 1405 x 585mm high with 2No. Top Hung Panes including factory fitted burglar bars with minimum vertical spacing of 110mm and maximum spacing of 140mm (W22) (drawing No MB-WC-502_GF WIN - REV A)	No	1			
52	Window 1425 x 850mm high with 2No. Top Hung Panes and 1No. Fixed pane (W07) (drawing No MB-WC-500_GF WIN - REV A)	No	2			
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Item No			Quantity	Rate	Amount R	
53	Window 1500 x 850mm high with 2No. Top Hung Panes and 1No. Fixed pane (W08) (drawing No MB-WC-500_GF WIN - REV A)	No	1			
54	Window 2400 x 1380mm high with 3No. Fixed panes and 3No. bottom hung panes (W05) (drawing No 21-100-Frankfort - MB-WC-503_MEZZ WIN - REV A)	No	1			
	Qualicoat or equal and approved powder coated aluminium windows glazed with 6,38mm Sounprufe or equal and approved one-directional laminated safety glass manufactured with a special vinyl interlayer that offers better sound control than traditional polyvinyl butyral (PVB) interlayers and plugged to brickwork or concrete					
55	Window 2000 x 1005mm high with 1No. Fixed pane (W07) (drawing No 21-100-Frankfort - MB-WC-503_MEZZ WIN - REV A)	No	1			
	Qualicoat or equal and approved powder coated aluminium windows glazed with 6,38mm laminated clear safety glass and plugged to brickwork or concrete					
56	Window 700 x 2380mm high with 2No. fixed panes (W12b) (drawing No 21-100-Frankfort - MB-WC-501_GF WIN - REV A)	No	1			
57	Window 945 x 1445mm high with 1No. top hung pane and 1No. fixed pane (W010) (drawing No 21-100-Frankfort - MB-WC-501_GF WIN - REV A)	No	6			
58	Window 960 x 2720mm high with 1No. top hung pane, 1No. side hung pane and 1No. fixed pane (W03) (drawing No 21-100-Frankfort - MB-WC-500_GF WIN - REV A)	No	2			
59	Window 1765 x 2380mm high with 3No. fixed panes and 1No. side hung pane (W12a) (drawing No 21-100-Frankfort - MB-WC-501_GF WIN - REV A)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
60	Window 3600 x 1825mm high with 4No. fixed panes and 4No. bottom hung panes (W02) (drawing No 21-100-Frankfort - MB-WC-503_MEZZ WIN - REV A)	No	4			
61	Window 3600 x 1825mm high with 4No. fixed panes and 4No. bottom hung panes (W04b) (drawing No 21-100-Frankfort - MB-WC-503_MEZZ WIN - REV A)	No	2			
62	Window 3600 x 1825mm high with 4No. fixed panes and 4No. bottom hung panes (W06) (drawing No 21-100-Frankfort - MB-WC-503_MEZZ WIN - REV A)	No	5			
63	Window 4565 x 1445mm high with 5No. fixed panes and 5No. bottom hung panes (W02) (drawing No 21-100-Frankfort - MB-WC-503_MEZZ WIN - REV A)	No	2			
64	Window 6460 x 1280mm high with 3No. sliding pane, 4No top hung panes and 17No. fixed panes (W17) (drawing No 21-100-Frankfort - MB-WC-502_GF WIN - REV A)	No	1			
65	Window 6845 x 870mm high with 5No. fixed panes (W01) (drawing No 21-100-Frankfort - MB-WC-503_MEZZ WIN - REV A)	No	1			
	Qualicoat or equal and approved powder coated aluminium windows glazed with 4mm monotholic annealed glass and plugged to brickwork or concrete					
66	Window 1095 x 680mm high with 1No. top hung pane and 1No. fixed panes (W09) (drawing No 21-100-Frankfort - MB-WC-501_GF WIN - REV A)	No	1			
67	Window 1360 x 915mm high with 1No. sliding pane and 1No. fixed pane (W21) (drawing No 21-100-Frankfort - MB-WC-502_GF WIN - REV A)	No	1			
68	Window 1585 x 900mm high with 2No. sliding panes and 1No. fixed pane (W18) (drawing No 21-100-Frankfort - MB-WC-502_GF WIN - REV A)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
69	Window 2110 x 900mm high with 4No. top hung panes and 2No. fixed panes (W13) (drawing No 21-100-Frankfort - MB-WC-501_GF WIN - REV A)	No	1			
70	Window 2385 x 900mm high with 2No. sliding panes and 2No. fixed panes (W19) (drawing No 21-100-Frankfort - MB-WC-502_GF WIN - REV A)	No	1			
71	Window 2400 x 1445mm high with 4No. top hung panes and 2No. fixed panes (W11) (drawing No 21-100-Frankfort - MB-WC-501_GF WIN - REV A)	No	4			
72	Window 2500 x 610mm high with 2No. top hung panes and 1No. fixed pane (W02) (drawing No 21-100-Frankfort - PL-111_GK - REV A)	No	1			
73	Window 5815 x 1280mm high with 4No. sliding panes, 4No. top hung panes and 17No. fixed panes (W02) (drawing No 21-100-Frankfort - MB-WC-500_GF WIN - REV A)	No	3			
	Qualicoat or equal and approved powder coated aluminium doors glazed with 6,38mm clear laminated safety glass for the opening sections and 8mm clear laminated safety glass for the fixed panels and plugged to brickwork or concrete					
74	Double door 6650 x 2380mm high overall with 2No. double doors and 7No. fixed panes (W20) (drawing No 21-100-Frankfort - MB-WC-502_GF WIN - REV A)	No	1			
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Section No. 2
BUILDINGS
Bill No. 11
Metalworks
Tender Bills of Quantities
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Section No. 2

BUILDINGS

Bill No. 11

Metalworks

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BUILDINGS

Bill No. 11

Metalworks

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Item No			Quantity	Rate	Amount R	
	BILL NO 12					
	PLASTERING					
	SUPPLEMENTARY PREAMBLES					
	SCREEDS					
	Flowfresh RT or equal and approved 6mm slip-resistant HACCP international certified antimicrobial treated polyurethane screed					
	The surface preparation should be that, the concrete or substrate should be a minimum of 25N/mm², free from laitance, dust and other contamination.					
	Substrate should be dry to 75% RH as per BS8204.					
	The installation should be carried out by an approved Flowcrete Applicator					
1	On floors and landings	m2	35			
	Flowtex WR or equal and approved 6mm slip-resistant HACCP international certified antimicrobial treated polyurethane screed					
2	On skirtings	m	24			
	Carried to Collection			R		

Item No		Quantity	Rate	Amount 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.				
3	4mm to 5mm Thick on floors and landings	m2	1,221		
	Carried to Collection			R	

Item No			Quantity	Rate	Amount R	
	Screeds wood floated on concrete					
4	Average 50mm thick on floors to falls	m2	22			
5	50mm Thick on floors and landings	m2	581			
	INTERNAL PLASTER					
	Gypsum skim plaster on concrete					
6	On ceilings	m2	30			
	Two coat plaster with Gyproc Rhinolite Cretestone or equal and approved skim finish on brickwork					
7	On walls	m2	3,773			
8	On narrow widths	m2	55			
	EXTERNAL PLASTER					
	Cement plaster on brickwork					
9	On walls	m2	216			
10	On narrow widths	m2	20			
	Mamoran or equal and approved scratch plaster on brickwork					
11	On walls	m2	8			
12	On narrow widths	m2	2			
	Mamoran or equal and approved combed plaster on brickwork					
13	On walls	m2	9			
14	On narrow widths	m2	1			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 12

Plastering

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	133		
Total Brought Forward from Page No.	134		
Total Brought Forward from Page No.	135		
Carried Forward to Sectional Summary: 2		R	

Item No			Quantity	Rate	Amount R	
	BILL NO. 10					
	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					
	200 x 200mm White glazed ceramic tiles (PC R200/m² supply and delivery) fixed with adhesive to plaster (plaster elsewhere) and flush pointed with tinted jointing compound					
1	On walls	m2	928			
	FLOOR TILING					
	10mm Thick non-slip full bodied Porcelain floor tiles with anti-slip surface (PC R300/m² for supply and delivery) fixed on 25mm bedding on concrete and flush pointed with tinted waterproof jointing compound:					
2	On floors and landings	m2	192			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
3	Skirting 100mm high cut tiles	m	286			
	Non-slip fawn textured mosaic floor tiles (PC R500/m² for supply and delivery) fixed on 25mm bedding on concrete and flush pointed with tinted waterproof jointing compound:					
4	On floors and landings	m2	18			
	SUNDRIES					
	M-Trim					
5	Stainless steel tile edging strip	m	87			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 13

Tiling

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	137		
Total Brought Forward from Page No.	138		
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Item No		Quantity	Rate	Amount R	
	BILL NO. 11				
	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 to Collection		R		

Item No		Quantity	Rate	Amount 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 <u>Concrete pipes</u> Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings <u>Vitrified clay pipes etc</u> 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 <u>uPVC pipes and fittings</u> 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 <u>uPVC pressure pipes and fittings</u> Pipes for water supply shall be of the class stated Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints				
	Carried to Collection		R		

Item No		Quantity	Rate	Amount 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 to Collection**		R		

Item No		Quantity	Rate	Amount 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 to Collection		R		

Item No		Quantity	Rate	Amount 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 to Collection		R		

Item No			Quantity	Rate	Amount 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 Vynadeep or equal and approved uPVC					
1	50mm Half round eaves gutters	m	12			
2	Extra over eaves gutter for stopped end	No	2			
3	Extra over eaves gutter for outlet for 100mm pipe	No	2			
4	100mm Diameter rainwater pipes	m	5			
5	Extra over rainwater pipe for bend	No	2			
6	Extra over rainwater pipe for shoe	No	2			
	Sequel Hydrain or equal and approved two tiered domed Fulbore cast iron outlets					
7	75mm Diameter vertical outlet	No	3			
	SANITARY FITTINGS					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Franke or equal and approved					
8	Stainless single kitchen sink size 800mm long x 460mm wide with 140mm deep and with and integrated 38mm waste fittings and PVC plugs and draining board recessed and is reversible (Code: PLN 611)	No	3			
9	Stainless double kitchen sink size 1160mm long x 460mm wide with bowls140mm deep and each bowl with and integrated 38mm waste fittings and PVC plugs and draining board recessed and is reversible (Code: PLN 621)	No	1			
10	Single Fabricated Economy Type Washtrough size 540 x 440 x 300mm deep with a sloped front, ridges and a 40mm waste outlet, manufactured from Grade 430 (17/10) Stainless Steel, 0,8mm gauge and supplied with fixing lugs to mount the trough to the wall. (Bolts elsewhere measured) (Code: ET101)	No	1			
11	Model CH Slop Hopper size 540 x 540mm manufactured from grade 304 (18/10) stainless steel 1,2mm thick with a 100mm high integral splash back to the rear and both sides, cone seamless with no welding with an integral flushing rim with a 107mm waste outlet for pan connector, the inlet is fitted with a 38 x 250mm long vertical flush pipe for a standard flush valve (elsewhere measured), fitted with a hinged bucket grid manufactured from 10mm diameter grade 304 (18/10) stainless steel round bar complete with two 40 x 40mm square stainless steel wall mounting gallows bracket, fixed to wall 600mm from the top of the front apron to the finish floor level with 4 off anchor bolts (bolts specified elsewhere) (Code:2630037)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
12	DSG drip sink size 535 x 454mm manufactured from grade 304 (18/10) stainless steel 1,2mm thick with 100 integrated splash back, fitted with hinged bucket grid manufactured from 10mm stainless steel round bar. Unit complete with two 40 x 20mm stainless steel wall mounting brackets, fixedto wall 600mm high from the top of the front apron to the finish floor level with v4 off anchor bolts (bolts specified elsewhere)	No	1			
13	Bucket hook with support bracket	No	1			
	Cobra or equal and approved					
14	Welcome Basin Wall Hung Small round wall hung basin size 400mm long x 320mm wide with 1No pre-punched tap hole on the right hand side of the basin including wall fixing set & installation manual included (Code: CWLBAWH1-6DT01).	No	1			
15	Elcome Pedestal Semi, size 270mm wide x 308mm high (Code: CWLPERD2-6DT01)	No	1			
16	Shelter Round wall hung basin size 495mm long x 430mm wide with 1No pre-punched tap holein the centre of the basin, Overflow, expansion bolts CCWLPERD1-6DT01) and round semi-pedestal (CWLPERD2-6DT01)	No	7			
17	Shelter Pedestal Full pedestal. 165mm wide x 665mm high with wall fixing set (Code: CSHBAWH2-6DT01)	No	7			
18	Arrive Square wall hung basin size 645mm long x 473 mm wide with 1 x pre-punched tap hole in the centre of the basi including overflow and wall fixing set (CARPESQ1-6DT01)	No	20			
19	Arrive Square semi-pedestal size 267mm wide x 315mm high with wall fixing set (Code: CAPESQ1-6DT01)	No	20			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Lecico or equal and approved					
20	Vitreous China Geo Top Inlet white urinal size is 360mm wide x 557mm high with a depth extension of 337mm.	No	11			
21	Vitreous China Urinal Separator partition size 630mm high with a depth extension of 320mm.	No	11			
22	Atlas Back-to-Wall Pan (Top Entry), 90° outlet closed rim back-to-wall pan with thermoset seat including Top inlet to be used with an exposed flush valve (Code: 431501Wh) (Colour: White) with lid, fitments, etc.	No	23			
23	Atlas Paraplegic Assisted Mobility Close-Couple WC Set (Side Flush, Raised Height) (Colour: White) including lid, fitments, etc.	No	4			
	Cobra or equal and approved					
24	Vandalproof shower head, single-function, chrome. Includes: 1/2" BSP male inlet, 10L/min maximum flow restrictor, self- cleaning spray nozzle, and minimum flow pressure 50 kPa. (Code:FSWHR134-0GT01)	No	16			
	WASTE UNIONS ETC					
	Chromium plated					
25	110mm waste outlet	No	36			
	TRAPS ETC					
	uPVC					
26	110mm Deep seal P or S trap	No	46			
27	75mm VA3.113 CP hinged urinal domical grating	No	11			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Rofo Engineering or equal and approved					
28	Square floor drain with slotted openings overall size 150 mm long x 150mm wide x 195mm deep manufactured from stainless steel (grade 304) (Code: RO 125H NW50)	No	16			
	TAPS, VALVES, ETC					
	Cobra or equal and approved					
29	Star Sink Mixer wall type sink mixer with aerated swivel outlet. 1/2 BSP male iron connection end, CP. Suitable for light pattern/ low resistance for low pressure or high water demand installations. SANS 226 Type 1, DZR brass. (Code:FSK2W2SR-0GT01)	No	2			
30	Star Bib Tap Extended with hot and cold indices (amounts to be confirmed). 1/2BSP male iron connection end. CP. Suitable for light pattern/ low resistance for low pressure or high water demand installations. SANS 226 Type 1, DZR brass. (Code:FBBAE1SR-0GT01)	No	2			
31	Star Bib Tap Extended with Star hose bib tap, chrome-plated, 1/2" inlet and 3/4" outlet. Includes: 3/4" wing nut & lining for 3/4" hose pipe. Suitable for light pattern/ low resistance for low pressure or high water demand installations. SANS 226 Type 1, DZR brass. (Code:FBBHN1SR-0GT01)	No	1			
32	Star Sink Mixer One hole with aerated swivel outlet. 1/2 BSP female connection ends. CP. Suitable for light pattern/ low resistance for low pressure or high water demand installations. SANS 226 Type 1, DZR brass. (Code:FSK2D1SR-0GT01)	No	1			
33	Star Sink Tap Prep tap swivel outlet pre-packed. Suitable for light pattern/ low resistance for low pressure or high water demand installations. SANS 226 Type 1, DZR brass. (Code:FSKT2DSR-0GTPP01)	No	2			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
34	Integral flushing rim fitted with a 38 x 250mm long vertical flush pipe inlet with Cobra FJ 2,00 flush valve connected to 20mm water supply and Cobra FJT 1,2 straight flush pipe connected to chromium plated adaptor	No	1			
35	Pillar Tap Metering Non hold open size 220mm long x 170mm high x 60mm high, self closing, 1/2BSP male iron connection end, Flow cycle 1-20 seconds. (Code: FPT1MTMT-0GT01)	No	22			
36	Medical Pillar Tap (Blue) Elbow action size 310mm long x 140mm wide x 60mm high With 1/4 turn ceramic disc headpart, flanged backnut and red indice for hot water application. 1/2BSP male iron connection end. (Code: FEAPILEA-5JT01)	No	5			
37	Star Pillar Tap Star pillar tap chrome size 160mm long x 130mm wide x 60mm high (Code: FPT2A1SG- 0GT01)	No	1			
38	Junior Flushmaster exposed flush valve, chrome. Includes: top entry, flush pipe, compression pan connector, wall flange, rubber seat buffer, and integral vacuum breaker. SANS 1240. (Code: FFUUSPFJ-0GT01)	No	27			
39	Exposed Non-hold open feature Econoflush with 'Ball O Stop control inlet, wall flange, additional screw and piston for large bowl and stall urinals, 3/4BSP female iron connection end, Recommended optimum design pressures: inlet flow pressure 30 - 500kPa: Maximum system pressure 600kPa.2 Year Warranty Cobra EcoMind Cobra Genuine Cobra LowPressure Cobra PureShine Cobra TeamAssist DZR Brass (Code: FFU1SUFJ-0GT01)	No	11			
40	Star Stop Tap Concealed Compression 15mmWith sliding wall flange. Underwall, 15mm compression connection ends. CPlight pattern/ low resistance for low pressure or high water demand installations. SANS 226 Type 1, DZR Brass (Code: FSTAC1SR-0GT01)	No	16			
	Carried to Collection			R		

Section No. 2
BUILDINGS
Bill No. 14
Plumbing & Drainage
Tender Bills of Quantities
Independent Development Trust (IDT)

Item No			Quantity	Rate	Amount R	
	SANITARY PLUMBING (PROVISIONAL)					
	uPVC pipes:					
41	100mm Pipes laid in and including trenches not exceeding 1m deep	m	176			
42	100mm Pipes laid in and including trenches not exceeding 1m deep under surface beds	m	63			
43	40mm Pipes fixed to or chased into brickwork.	m	23			
44	50mm Pipes fixed to or chased into brickwork.	m	46			
45	110mm Pipes fixed to or chased into brickwork.	m	27			
	Extra over uPVC pipes for fittings.:					
46	40mm Bend.	No	46			
47	50mm Bend.	No	92			
48	40mm Junction.	No	46			
49	50mm Junction.	No	46			
50	110mm End cap.	No	27			
51	110mm Access bent pan connector.	No	27			
52	110mm Access bend.	No	27			
53	110mm Access junction.	No	27			
54	Stub stack with overflow cap and waste connection in uPVC pipe	No	47			
55	Ventilated Stub Stack fitted with 50mm diameter 1 way vent valve (compliance with SANS 1532)	No	75			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
56	110mm Access bent pan connector.	No	27			
	Pre-cast concrete gulleys.:					
57	Gulley not exceeding 500mm deep.	No	4			
	Rofo Engineering or equal and approved square Stainless steel floor drains manufactured from stainless steel (grade 304)					
58	150 x 150 x 195mm Deep floor drain with slotted openings (Code: RO 125H NW50)	No	5			
	Sundries.:					
59	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.					
	Carried to Collection			R		

Item No		Quantity	Rate	Amount 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. **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. **Carried to Collection**		R		

Item No			Quantity	Rate	Amount R	
	WATER SUPPLIES					
	Class 2 copper pipes.:					
60	15mm Pipes chased into brick walls.	m	79			
61	22mm Pipes chased into brick walls.	m	63			
62	35mm Pipes chased into brick walls.	m	64			
63	15mm Pipes laid in and including trenches.	m	287			
64	22mm Pipes laid in and including trenches.	m	75			
65	35mm Pipes laid in and including trenches.	m	89			
66	42mm Pipes laid in and including trenches.	m	7			
	Extra over class 2 copper and polypropylene pipes for brass compression fittings.:					
67	15mm Fittings.	No	203			
68	22mm Fittings.	No	91			
69	35mm Elbow.	No	16			
70	35mm Bend	No	23			
71	35mm Tee	No	18			
72	35mm Reducing tee	No	5			
	Extra over class 2 copper pipes for capillary fittings:					
73	15mm Fittings.	No	365			
74	22mm Fittings.	No	135			
75	35mm End plug	No	5			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
76	35mm Adaptor coupling.	No	4			
77	35mm Elbow.	No	21			
78	35mm Tee.	No	18			
79	35mm Tee adaptor coupling.	No	3			
80	35mm Reducing coupling.	No	6			
81	35mm Reducing adaptor coupling	No	5			
82	35mm Reducing bent adaptor coupling	No	4			
83	35mm Reducing elbow	No	7			
84	35mm Reducing tee.	No	5			
85	42mm Reducing coupling.	No	3			
	Testing:					
86	Testing water pipe system.		Item			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 14

Plumbing & Drainage

COLLECTION

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Item No			Quantity	Rate	Amount R	
	BILL NO 8					
	PAINTWORK					
	SPECIFICATION					
	Unless otherwise specified painting generally is to be in accordance with Dulux specifications & Plascon Specifications					
	PAINTWORK, ETC TO NEW WORK ON					
	Newly plastered surfaces					
	Existing substrate shall be cleaned and dust free and moist content of less than 15%					
	ON FLOATED PLASTER SURFACES WITH					
	Prepare and prime walls with one coat Dulux Trade Ecosure or equal and approved Plaster Primer (Code: T4013) with an over coating time of 4 hours and two coats Dulux Pearlglo or equal and approved water based pure acrylic paint (code: D40) on:					
1	Internal walls	m2	3,313			
	ON FIBRE-CEMENT					
	One coat Dulux or equal and approved primer and two coats Dulux weatherguard Ultrasmooth or equal and approved adhesion promoted pure acrylic paint on					
2	Ceilings and beams	m2	29			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Prime surface with one coat Dulux or equal and approved Primer (Code: D36) with an overcoating time of 18 hours and finish with two coats Dulux Weatherguard Ultrasmooth (Code: D62) or equal and approved with an overcoating time of 4 hours. Fascias to be painted over- edge					
3	Facia and barge boards	m2	8			
	ON SMOOTH CONCRETE SURFACES WITH					
	One coat alkali resistant plaster primer and two coats PVA acrylic emulsion paint on					
4	Internal ceilings and beams	m2	19			
	SKIMMED SURFACES WITH					
	One coat alkali resistant plaster primer and two coats PVA acrylic emulsion paint on					
5	Internal ceilings and beams	m2	30			
	WOOD SURFACES WITH					
	One coat alkali resistant plaster primer and two coats PVA acrylic emulsion paint on					
6	Internal ceilings and beams	m2	940			
	Two coats oil wood primer on					
7	Backs of frames, linings, etc., not exceeding 300mm wide	m	281			
	One coat pink wood primer and two coats super universal enamel paint on					
8	Cornices, rails, etc., not exceeding 300mm girth	m	281			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	One coat oil wood primer, one coat universal undercoat and two coats super universal enamel paint on					
9	Doors	m2	276			
	ON METAL					
	Two coats high quality rust preventative primer and two coats oil based enamel paint and clear urethane sealer on steel on					
10	Door frames	m2	87			
11	Record room and strongroom doors and frames	m2	23			
	Spot priming defects in pre-primed surfaces with zinc chromate primer and applying one undercoat and two coats alkyd enamel paint on steel on:					
12	Members of roof trusses	m2	1,262			
	Carried to Collection			R		

Section No. 2

BUILDINGS

Bill No. 15

Paintwork

COLLECTION

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Item No		Quantity	Rate	Amount R	
	BILL NO 16				
	PROVISIONAL SUMS ETC				
	Note				
	All prime cost amounts and provisional sums are net				
	SUNDRY BUILDING WORK				
	Carport Construction				
1	Provide the sum of R110 000,00 (One Hundred and Ten Thousand Rand) for Car Port Construction to be measured and valued at schedule rates	Item		110,000.00	
	SPECIALIST WORK (SELECTED SUB-CONTRACTORS)				
	Signage				
2	Provide the sum of R70 000,00 (Seventy Thousand Rand) for signage	Item		70,000.00	
3	Profit		%		
4	Attendance		%		
	Gym Equipment				
5	Provide the sum of R750 000,00 (Seven Hundred and Fifty Thousand Rand) for Gym Equipment	Item		750,000.00	
6	Profit		%		
7	Attendance		%		
	Carried to Collection		R		

Item No		Quantity	Rate	Amount R	
	Turnstiles				
8	Provide the sum of R60 000,00 (Sixty Thousand Rand) for Turnstiles	Item		60,000.00	
9	Profit		%		
10	Attendance		%		
	Kitchen Equipment				
11	Provide the sum of R300 000,00 (Three Hundred Rand) for Kitchen Equipment	Item		300,000.00	
12	Profit		%		
13	Attendance		%		
	Access Control				
14	Provide the sum of R120 000,00 (One Hundred and Twenty Thousand Rand) for Access Control	Item		120,000.00	
15	Profit		%		
16	Attendance		%		
	Water Storage tanks				
17	Provide the sum of R150 000,00 (One Hundred and Fifty Thousand Rand) for Water Storage Tanks	Item		150,000.00	
18	Profit		%		
19	Attendance		%		
	Carried to Collection		R		

Section No. 2
BUILDINGS
Bill No. 16
Provisional Sums
Tender Bills of Quantities
Independent Development Trust (IDT)

Section No. 2

BUILDINGS

Bill No. 16

Provisional Sums

COLLECTION

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Section No. 2

BUILDINGS

SECTION SUMMARY - BUILDINGS

Bill No		Page No	Amount R
1	Earthworks	33	
2	Concrete, Formwork & Reinforcement	42	
3	Masonry	46	
4	Waterproofing	50	
5	Roof Coverings, etc	54	
6	Carpentry & Joinery	84	
7	Ceilings, Partitions and Access Flooring	90	
8	Floor Coverings, Plastic Linings, etc.	97	
9	Ironmongery	107	
10	Structural Steelwork	111	
11	Metalworks	132	
12	Plastering	136	
13	Tiling	139	
14	Plumbing & Drainage	156	
15	Paintwork	160	
16	Provisional Sums	163	

Carried to Final Summary R

Item No			Quantity	Rate	Amount R	
	BILL NUMBER 1					
	WORK GROUP NUMBER 160					
	LT CABLES					
	600/1000 volt PVC/PVC/SWA/PVC copper cable pulled through sleeves, laid in trenches. (trenching and backfilling measured elsewhere)					
1	70mm² x 4-core ECC	m	260			
2	16mm² x 4-core ECC	m	120			
3	10mm² x 3-core ECC	m	40			
4	4mm² x 4-core ECC	m	650			
	LT CABLE TERMINATIONS					
	Termination for 600/1000 volt PVC/PVC/SWA/PVC copper cables.					
5	70mm² x 4-core ECC	No	8			
6	16mm² x 4-core ECC	No	6			
7	10mm² x 3-core ECC	No	4			
8	4mm² x 4-core ECC	No	56			
	EARTH WIRES					
	Bare copper earth conductors strapped to cables					
9	70mm² conductor	m	260			
10	16mm² conductor	m	120			
11	4mm² conductor	m	650			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	EARTH WIRE TERMINATIONS					
	Bare copper earth conductor terminations includings lugs etc:					
12	70mm² conductor	No	8			
13	16mm² conductor	No	6			
14	4mm² conductor	No	56			
	EXCAVATIONS, ETC					
	Excavate for cable and sleeve trenches including temporarysupport of sides, keeping excavations clean and dry, back-filling and compaction to the Engineer's specification :(0.450m x 0.800m deep):					
15	Cable or sleeve trenches not exceeding 1 metre deep. (800m)	m3	288			
16	Select from excavation materials and install a sandbedding in trench 200mm deep and 400mm wide (100mm above and 100mm below the cable)	m3	64			
17	Backfilling of trenches with excavated soil after cables have been laid and tested complete with compacting of backfilling, levelling-off of trenches and removing and dumping of surplus excavated material	m3	216			
18	Allow for removing of road tar and making good when finish (Provisional)	m2	15			
19	Allow for removing of paving and making good when finish (Provisional)	m2	15			
20	Allow for removing of concrete and making good when finish (Provisional)	m2	15			
	SLEEVES					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Corrugated Nextube Flexible High-density polyethylene (HDPE) sleeve piping with a band thickness of not less than 1.5mm thick,including joiners draw wire(rope) inclusive, short lenghts and jointing, laid in trench (trench backfilling measured elsewhere) (trench backfilling measured elsewhere)					
21	110mm Diameter: colour black for power	m	426			
22	110mm Diameter: colour yellow for telkom/data	m	360			
23	75mm Diameter: colour black for power	m	54			
24	75mm Diameter: colour black for telkom/data	m	32			
	SUNDRIES					
25	LV Cable route markers	No	10			
26	Danger tape above cables	m	800			
27	Test and commission the complete reticulation installation		Item			
28	Issue Electrical Consultant with As-Builts" dwg. for all cables"		Item			
29	Power manholes as per drawing detail and specification	No	5			
30	Telkom/Data manholes as per drawing detail and specification	No	5			
	Carried to Collection			R		

Section No. 3

ELECTRICAL INSTALLATION

Bill No. 1

LT Cables

COLLECTION

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Total Brought Forward from Page No.	165		
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Item No			Quantity	Rate	Amount R	
	BILL NUMBER 2					
	WORK GROUP NUMBER 160					
	ELECTRICAL DISTRIBUTION BOARDS					
	DISTRIBUTION BOARDS					
	Distribution boards complete with sheet metal tray, frames, sub frames, bus bars, contactors, time switches, switches, 50% provision for future circuit breakers and a typed legend card as shown on the wiring schedules.					
1	DB-M: Floor standing board with lockable doors	No	1			
2	DB-A: Semi- Recessed board with lockable doors	No	1			
3	DB-B: Semi- Recessed board with lockable doors	No	1			
4	DB-GK (GroundKeeper): Semi- Recessed board with lockable doors	No	1			
5	DB-GH (Gatehouse): Semi- Recessed board with lockable doors	No	1			
	DISTRIBUTION KIOSK					
	Distribution Kiosk complete with sheet metal tray, frames, sub frames, bus bars, contactors, time switches, switches, provision for future circuit breakers and a typed legend card as shown on the wiring schedules.					
6	DK- A : Floor standing kiosk with lockable doors	No	1			
7	DK- B : Floor standing kiosk with lockable doors	No	1			
	Drawings					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Submit to the Consulting Engineer three (3) sets of the Manufacturer's drawings each for approval of the following distribution boards complete:					
8	DB. M	No	1			
9	DB. A	No	1			
10	DB. B	No	1			
11	DB. GK	No	1			
12	DB. GH	No	1			
13	DK. A	No	1			
14	DK. B	No	1			
	Carried to Collection			R		

Section No. 3

ELECTRICAL INSTALLATION

Bill No. 2

Distribution Box

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	169		
Total Brought Forward from Page No.	170		

Carried Forward to Sectional Summary: 3 R

Item No		Quantity	Rate	Amount R	
	BILL NUMBER 3				
	WORK GROUP NUMBER 160				
	ELECTRICAL CONNECTION COST				
1	Allow a provisional amount of R 350 000.00 three hundred and fifty thousand rand for the new electrical supply point payable to Centlec		SUM		
2	Allow for the arrangements with local Authorities	Item			
3	Allow for profit	Item			
4	Allow for attendace	Item			
	Carried Forward to Sectional Summary: 3		R		

Item No			Quantity	Rate	Amount R
	BILL NUMBER 4				
	WORK GROUP NUMBER 160				
	LIGHTING AND SMALL POWER				
	BLACK ENAMELLED CONDUIT				
	Steel conduit placed in position for casting into concrete slabs, surface beds, screeds; for building into brickwork, surface mounted on brick walls and fixed in ceiling voids and dry wall partitioning.				
1	20mm Diameter	m	1,800		
2	25mm Diameter	m	440		
	CONDUIT BOXES AND FITTINGS				
	Placed in position for casting into concrete, building or chased into brickwork, including locknuts and bushes:				
3	Back entry round conduit box for 20mm diameter conduit (average 1 to 4-way)	No	339		
4	100 x 50mm galvinased box	No	148		
5	100 x 100mm galvinased box	No	225		
	PVC INSULATED CONDUCTORS				
	PVC insulated stranded copper conductor drawn into wire ways, conduits etc;				
6	2,5mm²	m	8,381		
7	4mm²	m	15,492		
8	6mm²	m	4,180		
	Carried to Collection			R	

Item No			Quantity	Rate	Amount R	
9	10mm²	m	1,500			
	BARE COPPER EARTH CONDUCTORS					
	Bare stranded copper earth conductor drawn into wire ways, conduits etc;					
10	2,5mm²	m	4,190			
11	4mm²	m	7,746			
12	6mm²	m	2,090			
13	10mm²	m	750			
	LIGHT SWITCHES					
	Switches complete with steel cover plate fixed in flush box:					
14	16A One lever flush mounted switch	No	8			
15	16A One lever switch WT	No	2			
16	16A Two lever flush mounted switch	No	1			
17	16A Two lever switch WT	No	1			
18	16AThree lever flush mounted switch	No	1			
19	16A Four lever flush mounted switch	No	1			
20	16A 2-way One lever flush mounted switch	No	2			
21	16A 2-way Two lever flush mounted switch	No	1			
22	16A Intermediate 1 lever flush mounted switch	No	3			
	OCCUPANCY SENSORS					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Occupancy sensors mounted against ceiling or surface box:Occupancy sensors shall be Schneider range					
23	10A Single Load, 230V, 2 kW, 360 degrees - Lux and Time adjustable with 5A plug top	No	60			
24	10A Dual Load, 230V, 2 kW, 360 degrees - Lux and Time adjustable with 2x5A plug top (Provisional)	No	5			
	SWITCHED SOCKET OUTLETS					
	Switch socket outlets etc; complete with cover plate fixed in flush box. Switch sockets shall be as per specification					
25	Type A 16A switched socket outlet (1 x single SANS 164-1 + 2 x single SANS 164-2) wall mounted-normal white surround with white switch against a 100mm x 100mm x 50mm galvanised outlet box	No	102			
26	Type B 16A switched socket outlet (1 x single SANS 164-1 + 1 x single SANS 164-2) powerskirting mounted-normal white surround with white switch and flat earth pin	No	32			
27	Type C 16A switched socket outlet (1 x single SANS 164-1 + 1x single SANS 164-2) powerskirting mounted-dedicated red surround with red switch and flat earth pin mounted	No	32			
28	Type D 16A switched socket outlet (1 x single SANS 164-1 + 1 x single SANS 164-2) wall mounted-dedicated white surround with red switch against a 100mm x 100mm x 50mm galvanised outlet box	No	2			
	UNSWITCHED SOCKET OUTLETS					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	UnSwitched socket outlets etc; complete with cover plate fixed in flush box :					
29	Un-switched 5 ampere socket oulet for recessed light fittings	No	250			
	ISOLATORS & WELDING PLUGS					
	Isolator outlets complete with cover plate fixed in flush box or surface mounted.					
30	100A triple pole + earth surface mounted weatherproof isolator	No	2			
31	60A triple pole + earth surface mounted weatherproof isolator	No	8			
32	30A triple pole + earth surface mounted weatherproof isolator	No	4			
33	30A triple pole + earth surface mounted isolator	No	15			
34	30A double pole + earth mounted weatherproof isolator	No	20			
35	30A double pole + earth surface mounted isolator	No	90			
36	30A 3P+N+E Stove coupler (male and female complete)	No	5			
	LUMINAIRES					
	Supply and install luminaires complete with lamps, connections, etc mounted in positions as shown on the drawings					
37	Type A	No				
38	Type A1	No				
39	Type B1	No	20			
	Carried to Collection				R	

Item No			Quantity	Rate	Amount R	
40	Type B2	No	8			
41	Type B3	No	22			
42	Type B4	No	14			
43	Type C1	No	7			
44	Type C2	No	57			
45	Type E	No	10			
46	Type E1	No	2			
47	Type F	No	25			
48	Type G	No	17			
49	Type J1	No	27			
50	Type J2	No	27			
51	Type K	No	20			
52	Type K1	No	4			
53	Type L	No	1			
54	Type X	No	15			
55	Photocell mounted inside a semi recessed york box	No	6			
	POWER SKIRTING					
	The rates for power skirting shall include for splices, joining, drilling, etc					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Power skirting complete with covers surface mounted to brickwork or concrete. Similar and equal to O-LINE MS4/3					
56	Three compartment with cover	m	70			
	Note:					
	Extra over power skirting complete for					
57	End caps	No	24			
58	90/45 degree bends (internal/external)	No	11			
59	T section	No	1			
60	Cut out opening in power skirting to suit termination box, complete with protective rubber grommet.	No	16			
	<u>WIRING CHANNELS</u>					
	Galvanised steel wiring channel complete with galvanised steel cover surface mounted in ceiling voids or fixed flush in concrete floors.					
	Note: The rates for wiring channels shall include for hangers, splices, jointing, drilling, etc					
61	127mm x 76.2mm (1.0mm thick) fixed in ceiling voids	m	700			
	Extra over wiring trunking complete for:					
62	T-Pieces	No	16			
63	4-way junction	No	8			
64	90 degree bends	No	30			
65	Distribution Board termination	No	3			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	ONLY APPLIANCE CONNECTIONS					
66	Single phase appliance, complete with 1 metre 25mm diameter "Kopex" flexible PVC conduit, two "Kopex" adaptors, 2 x 4,0mm² PVC insulated copper conductors and a 2,5mm² BCEW from the appliance terminal block	No	5			
67	Three phase appliance, complete with 1 metre 25mm diameter "Kopex" flexible PVC conduit, two "Kopex" adaptors, 4 x 10mm² PVC insulated copper conductors and a 2.5mm² BCEW from the appliance terminal block	No	5			
68	Single Phase Air Conditioner units/Extractor Fan/ Fresh Air, etc	No	34			
69	Three Phase Air Conditioner units/Extractor Fan/ Fresh Air, etc	No	12			
	APPLIANCE					
70	Electric handdriers equal to Stiebel Eltron HTZ 50	No	12			
71	Electrical Boomgate as per specification	No	2			
72	Electrical Gate Motor as per specification	No	1			
73	6-Wire Electrical fence complete as per specification	m	642			
	SUNDRIES					
	Provide a Certificate of Compliance by an Accredited person for each of the following:					
74	DB M (Normal)	No	1			
75	DB A (Normal)	No	1			
76	DB B (Normal)	No	1			
77	DB GH (Normal)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
78	DB GK (Normal)	No	1			
79	DK A (Normal)	No	1			
80	DK B (Normal)	No	1			
	CIRCUIT LABELLING & TESTING					
	Allow for circuit labelling, testing, balancing and commissioning of the complete electrical installations in the following areas:					
81	DB M (Normal)	No	1			
82	DB A (Normal)	No	1			
83	DB B (Normal)	No	1			
84	DB GH (Normal)	No	1			
85	DB GK (Normal)	No	1			
86	DK A (Normal)	No	1			
87	DK B (Normal)	No	1			
	EARTHING					
	Earthing of the building to comply with the latest SANS 0142 Edition 1of November 2001 Code of Practice for the Wiring of Premises as amended.					
88	DB M (Normal)	No	1			
89	DB A (Normal)	No	1			
90	DB B (Normal)	No	1			
91	DB GH (Normal)	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
92	DB GK (Normal)	No	1			
93	DK A (Normal)	No	1			
94	DK B (Normal)	No	1			
	Carried to Collection			R		

Section No. 3
ELECTRICAL INSTALLATION
Bill No. 4
Lightning & Smaller Powe
Tender Bills of Quantities
Independent Development Trust (IDT)

Section No. 3

ELECTRICAL INSTALLATION

Bill No. 4

Lightning & Smaller Powe

COLLECTION

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Total Brought Forward from Page No.	177		
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Total Brought Forward from Page No.	179		
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Total Brought Forward from Page No.	181		
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Item No			Quantity	Rate	Amount R	
	BILL NUMBER 5					
	WORK GROUP NUMBER 160					
	LIGHTNING PROTECTION					
	The installation of Lighting Protection is a specialized trade and must be performed by an Earthing and Lighting Protection Association (ELPA) accreditate member.					
	PVC CONDUIT					
	PVC conduit placed in position for casting into concrete slabs,surface beds, screeds; for building into brickwork					
1	20mm Diameter	m	231			
	CONDUCTORS					
	PVC insulated stranded copper conductor drawn into conduits					
2	50mm²	m	108			
	ALUMINIUM ALLOY CONDUCTORS					
	Supply and install aluminium alloy conductors pulled into conduit and or surface mounted					
3	8mm diameter	m	280			
	CONDUIT BOXES AND FITTINGS					
	Placed in position for casting into concrete, building or chased into brickwork, including locknuts and bushes:					
4	100 x 100 x 110mm deep box	No	16			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
5	100 x 100 Blank cover plate marked "LIGHTNING PROTECTION TEST JOINT"	No	16			
	EARTH ELECTRODES					
	Supply and install expandable vertical copper bar type electrodes, copper covered steel or phosphor bronze:					
6	2.0 metre long SANS approved	No	16			
	TERMINATIONS					
7	Termination of aluminium alloy conductors onto tin roof complete with two hole crimping lugs, brass nuts, bolts and washers	No	16			
8	Termination of aluminium alloy conductors and pvc insulated copper stranded conductors at test joints	No	16			
9	Termination of 50mm² pvc insulated copper stranded conductors onto earth electrodes complete with clamp.	No	16			
10	Termination of 8mm diam. aluminium alloy conductor onto overhang roof and main roof	No	16			
	EXCAVATIONS					
	Excavate for conduits trenches including, backfilling and compaction to the Engineer's specification					
11	pickable material	m3	4			
	SUNDRIES					
12	Provide, in triplicate a test certificate of all readings taken on the day of the test		Item			
13	Allow for testing the complete lightning protection installation as described in the SANS user code 03 as amended		Item			
	Carried to Collection			R		

Section No. 3

ELECTRICAL INSTALLATION

Bill No. 5

Lightning Protection

COLLECTION

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Item No			Quantity	Rate	Amount R	
	BILL NUMBER 6					
	TELEPHONE AND DATA CONDUITING INSTALLATION					
	WORK GROUP NUMBER 160					
	DISTRIBUTION STRIP BOXES					
	Supply and install flush mounted outlet boxes complete with architrave frame for temination of all conduits.					
1	800 x 600 x 150mm deep	No	3			
	BLACK ENAMELLED CONDUIT					
	Placed in position for casting into concrete slabs, surface beds, screeds; for building into brickwork, surface mounted on brick walls and fixed in ceiling voids and dry wall partitioning.					
2	25mm Diameter	m	350			
	CONDUIT BOXES AND FITTINGS					
	Placed in position for casting into concrete, building or chased into brickwork, including locknuts and bushes					
3	50 x 100 x 50mm complete with blank plate	No	250			
4	100 x 100 x 50mm complete with blank plate	No	10			
	DRAW WIRE					
	Galvanized steel draw wire pulled into telephone conduits.					
5	1,6mm thick	No	500			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	DATA POINTS					
	Telephone and Data outlet points mounted on power skirting/wall complete with yoke.					
6	Data	No	30			
	TERMINATION BOXES					
7	Termination box behind power skirting	No	15			
8	Cut out opening in power skirting to suit termination box, complete with protective rubber grommet.	No	30			
	WIRING CHANNELS					
	Galvanised steel wiring channel complete with galvanised steel cover surface mounted in ceiling voids or fixed flush in concrete floors.					
	Note: The rates for wiring channels shall include for hangers, splices, jointing, drilling, etc					
9	127mm x 76.2mm (1.0mm thick) fixed in ceiling voids	m	350			
	Extra over wiring trunking complete for:					
10	T-Pieces	No	8			
11	90 degree internal/external bends	No	4			
12	Ends	No	15			
13	Distribution Board termination	No	2			
	CABLE TRAY					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Galvanised cable tray mounted in ceiling voids or fixed surface against concrete floors/walls The rates for cable tray shall include for hangers, splices, jointing, drilling, etc					
14	300mm wire mesh	m	15			
	Extra over 300mm wire mesh accessories					
15	External bends	No	2			
16	90 Degree bends	No	1			
17	"T joints"	No	1			
	UNDER FLOOR DUCTING					
18	Access under floor outlet complete with conduit box,ingres prevention plate, plastic carpet frame and lid: 2 x STD 16A SSD 2 x STD 16A EURO 2 x Dedicated 16A SSD 2 x Blanc modules 2 x Data RJ8 outlet	No	2			
	Carried to Collection			R		

Section No. 3

ELECTRICAL INSTALLATION

Bill No. 6

Telephone and Data Conduiting Installation

COLLECTION

	Page No		Amount R
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Total Brought Forward from Page No.	188		

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Item No			Quantity	Rate	Amount R	
	BILL NUMBER 7					
	FIRE DETECTION INSTALLATION					
	WORK GROUP NUMBER 160					
	FIRE DETECTION SYSTEM COMPLETE WITH ALL ACCESSORIES AND EQUIPMENT AS PER PROJECT SPECIFICATION					
	MAIN FIRE CONTROL PANEL UNIT					
1	Control unit supplied and installed	No	1			
	ICT BACKBONE					
2	Connection onto main ICT backbone supplied and installed	No	1			
	REPEATER FIRE CONTROL PANEL					
3	Repeater fire unit supplied and installed	No	1			
	MIMIC PANEL					
4	600 x 600mm (minimum) mimic panel flush mounted against the wall as part of the control panel indicating all the zones with high intensity leds	No	1			
	DETECTOR ELEMENTS					
	Detector elements mounted on and including standard round electrical outlet box fixed to suspended ceiling tiles, and/or fixed ceiling boarding and/or concrete slab soffit forming a hole through for wiring.					
5	Heat detectors (ceiling)	No	6			
6	Optical smoke detectors (ceiling)	No	59			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
7	Optical smoke detectors (inside ceiling void)	No	16			
8	Audisle and visual sirens	No	20			
	BREAK GLASS UNITS					
	Resettable Break glass unit mounted on against standard round electrical outlet box					
9	Resettable Break glass unit	No	10			
	BELLS, SOUNDERS AND SIRENS					
10	Sirens	No	20			
	ELECTRONIC DIALLING DEVICE					
11	Supply and installation of and electronic dialling device	No	1			
	MONITORING AND CONTROL EQUIPMENT					
12	Wiring and cabling to inter-connect and control or monitor the various mediums to complete a workable fire detection control system signal		Item			
13	Detectors or break glass units, enabling the pre-fire alarm and buzzer		Item			
14	Sound evacuation system and electronic dialling device enabling manual activation of a fire signal		Item			
15	Magnetic door releases, enabling the closing of doors, including door		Item			
	closers					
16	Air conditioning cut-off control and extraction fan start-up control		Item			
17	PH 30 Fire resistant cabling	m	1,500			
	Carried to Collection			R		

Item No		Quantity	Rate	Amount R	
18	Wiring and cabling to interconnect the various detector elements with the central control panel and sync with existing backbone panel	Item			
	GENERAL (COMPLETE INSTALLATION)				
19	Allow for any additional items not listed in the specification to complete the system in order to accomplish a workable Fire Detection System	Item			
20	The supply, delivery, installation, testing, commissioning and handing over in good working order of a complete Intercom and Voice Evacuation installation, with associated peripherals as specified This work to be carried out by a specialist contractor who specialises in this type of work	Item			
	TESTING AND COMMISSIONING				
	Testing and commissioning of the systems as specified				
21	Fire detection system	Item			
	TRAINING				
22	Training of technical staff in operation and maintaining all the systems as per specification	Item			
	DRAWINGS				
23	Supply and delivery of drawings as per specification	Item			
	MANUALS AND LITERATURE				
24	Supply and delivery of three (3) copies of maintenance and operating instructions as per specification	Item			
	GUARANTEE AND MAINTENANCE				
25	Guarantee and maintenance during the (twelve) 12 month period as per specification	Item			
	Carried to Collection		R		

Section No. 3

ELECTRICAL INSTALLATION

Bill No. 7

Fire Detection

COLLECTION

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Section No. 3

ELECTRICAL INSTALLATION

SECTION SUMMARY - ELECTRICAL INSTALLATION

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2	Distribution Box	171		
3	Electrical Connection Cost	172		
4	Lightning & Smaller Powe	182		
5	Lightning Protection	185		
6	Telephone and Data Conduiting Installation	189		
7	Fire Detection	193		

Carried to Final Summary R

Item No			Quantity	Rate	Amount R	
	BILL NO. 1					
	PRELIMINARIES AND GENERAL					
1	Technical Submissions			SUM		
2	Transport			SUM		
3	Allow fully for compliance with the Conditions of Contract as is applicable to the Main Contract.			SUM		
4	Allow for compliance with general matters relating to these specifications.			SUM		
5	Allow for compliance with Occupational Health & Safety Act and Regulations and other statutory requirements.			SUM		
6	Operating and maintenance manuals including as-built drawings. 3 sets.(one hard copy and one electronic copy)			SUM		
7	Allow for the guarantee of the complete installation for a period of 12 months.			SUM		
8	Allow for the full maintenance of the installation for a period of 12 months.	No	3			
9	Allow for the provision of electrical certificate of compliance for all			SUM		
10	Mechanical related electrical work.			SUM		
11	Site Establishment			SUM		
12	Rigging (all equipment)			SUM		
13	Protection Against Damage			SUM		
14	Testing and Commissioning c/w Pressure testing			SUM		
	Carried Forward to Sectional Summary: 4			R		

Item No			Quantity	Rate	Amount R	
	Bill 2: Office and Reception AC					
	Air Conditioning Units					
	Supply, deliver, install and commission inverter type units R410a complete with all electrical work, trunking, coated brackets and cables for complete installation as per project drawings and specifications:					
1	AC-1 Cassette split units of Cooling 7.03kW and Heating 7.74kW	No	1			
2	AC-2 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
3	AC-3 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
4	AC-4 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
5	AC-5 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
6	AC-6 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
7	AC-7 Cassette split units of Cooling 16.11kW and Heating 16.99kW	No	1			
8	AC-8 Cassette split units of Cooling 16.11kW and Heating 16.99kW	No	1			
9	AC-9 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
10	AC-10 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
11	AC-11 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
12	AC-13 Midwall split units of Cooling 3.52kW and Heating 3.81kW	No	1			
13	AC-14 Midwall split units of Cooling 3.52kW and Heating 3.81kW	No	1			
	Refrigerant piping					
	Supply, Deliver and install refrigerant piping c/w armoflex. Vapor seal to expose oudoor piping					
14	AC-1	m	46			
15	AC-2	m	42			
16	AC-3	m	47			
17	AC-4	m	42			
18	AC-5	m	40			
19	AC-6	m	30			
20	AC-7	m	22			
21	AC-8	m	26			
22	AC-9	m	31			
23	AC-10	m	36			
24	AC-11	m	42			
25	AC-13	m	38			
26	AC-14	m	38			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
27	1000x300mm Stainless Steel driptray c/w socket, bend, uPVC Ø25mm pipe x 5m	No	2			
	AC Drain					
	Supply, deliver and install uPVC drain piping complete with all ancillaries, brackets and accessories. First 2m with armoflex					
28	Ø32mm uPVC (blue) pipe	m	75			
29	Ø32mm uPVC (blue) elbow	No	22			
30	Ø50mm uPVC (blue) pipe	m	44			
31	Ø50mm uPVC (blue) elbow	No	14			
32	Ø50mm uPVC (blue) Tee	No	5			
33	Ø32-50mm uPVC (blue) socket	No	11			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 2

Office and Reception AC

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	196		
Total Brought Forward from Page No.	197		
Total Brought Forward from Page No.	198		

Carried Forward to Sectional Summary: 4 R

Item No			Quantity	Rate	Amount R	
	Bill 3: Office Office and Reception					
	Ventilation & Air Terminals					
	Fresh Air					
	Ducting					
	Supply, deliver and install uninsulated insulated galvanised sheet metal ducting including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
1	FA1: Equal Square to Round - 300x300 > Ø250	No	2			
2	FA 2: Straight - 300x300	m	8			
3	FA 3: Bend 90° - 300x300	No	1			
4	FA 4: Equal Square to Round - 700x400 > Ø315	No	1			
5	FA 5: Equal Square to Round - Ø315 > 400x400	No	1			
6	FA 6: Straight - 400x400	m	10			
7	FA 7: Straight - 250x250	m	14			
8	C4: Endcap - 300x300	No	1			
9	C6: Endcap - 400x400	No	1			
10	C8: Endcap - 250x250	No	3			
11	C5: Spigot - Ø200	No	16			
12	C7: Spigot/Shoe - 250x250	No	3			
13	VCD2: Volume Control Damper - 250x250	No	4			
14	Ø200 flexible ducting	m	22			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Air Terminals					
15	WL 1: Hinged Weather Louvre c/w 50mm Pleated Filter - 300x300	No	1			
16	WL 2: Hinged Weather Louvre c/w 50mm Pleated Filter - 700 x400	No	1			
17	DV 1: Disc Valve - Ø200	No	13			
18	DG 1: Door Grille - 300x300	No	28			
	Fans					
	Supply, deliver and install extract fans complete with ancillaries, brackets, mounting feet, flexible collar, etc.:					
19	F1, Ø250 mm, 200 l/s@250Pa Inline tube fan 1ph c/w 2 off sound attenuators, hangers & electrical isolator with 7 day timer	No	1			
20	F4, Ø315 mm, 650 l/s@250Pa Axial flow fan 3ph c/w 2 off sound attenuators, hangers & electrical isolator with 7 day timer	No	1			
	Electrical					
	Supply, deliver and install all electrical work controls and labour complete for fresh air fans					
21	Electrical connection			SUM		
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
22	Timber frame			SUM		
	Extract Air					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Ducting					
	Supply, deliver and install uninsulated insulated galvanised sheet metal ducting including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
23	E1: Equal Square to Round - 400x800 > Ø315	No	1			
24	E2: Equal Square to Round - Ø315 > 450x450	No	1			
25	E3: Straight - 450x450	m	10			
26	E4: Straight - 250x250	m	28			
27	E5: Bend 90° - 250x250	No	2			
28	E6: Bend 90° - 450x450	No	2			
29	C8: Endcap - 250x250	No	11			
30	C7: Spigot/Shoe - 250x250	No	4			
31	C5: Spigot - Ø200	No	22			
32	C9: Endcap - 450x450	No	4			
33	VCD1: Volume Control Damper - Ø200	No	22			
34	Ø200 flexible ducting	m	36			
	Air Terminals					
35	WL 3: Hinged Weater Louvre - 400x800	No	1			
36	DV 1: Disc Valve - Ø200	No	22			
37	DG 1: Door Grille - 300x300	No	4			
	Fans					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver and install extract fans complete with ancillaries, brackets,					
	mounting feet, flexible collar, etc.:					
38	F2, Ø300 mm, 150 l/s@50Pa Window Wall Fan 1ph c/w brackets electrical isolator with 7 day timer	No	10			
39	F3, Ø315 mm, 1080 l/s@150Pa Axial flow fan 3ph c/w 2 off sound attenuators, hangers & electrical isolator with 7 day timer	No	1			
	Electrical					
	Supply, deliver and install all electrical work controls and labour complete for fresh air fans					
40	Electrical connection	No	11			
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
41	Timber frame	No	10			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 3

Office Vent

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	200		
Total Brought Forward from Page No.	201		
Total Brought Forward from Page No.	202		
Total Brought Forward from Page No.	203		

Carried Forward to Sectional Summary: 4 R

Item No			Quantity	Rate	Amount R	
	Bill 4: Gymnasuim					
	Ducting					
	Supply, deliver and install insulated glav sheet metal ducting, 25mm FRK including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
1	Straight Double Skin - 1000x1000	m	8			
2	Bend c/w Double Skin - 1000x1000	No	8			
3	Bend c/w 25mm FRK - 1000x1000	No	4			
4	Straight c/w 25mm FRK - 1000x1000	m	8			
5	Flat on Side Taper c/w 25mm FRK - 1000x1000> 1000x750	No	1			
6	Straight c/w 25mm FRK - 1000x750	m	8			
7	Flat on Side Taper c/w 25mm FRK - 1000x750 > 750x750	No	1			
8	Straight c/w 25mm FRK - 750x750	m	8			
9	Straight - Ø630	m	24			
10	Equal Taper - Ø630 > Ø450	No	5			
11	Straight - Ø450	m	24			
12	Endcap - Ø450	No	4			
13	Spigot - Ø315	No	20			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Air Terminals					
14	SAG 2: Ø315 Variable Core Fixed Vane Constant Volume Radial Diffuser (RVD) c/w Ø400 Spigot	No	20			
15	RAG 1: Return Air Grille - 2000x1500	No	4			
	Air Handling Unit					
	Package Rooftop Inverter A/C Systems Supply and deliver package/rooftop air conditioner units complete as specified: Install and commission rooftop packaged unit complete as specified, lifting and rigging and all control wiring, thermostats and remote control					
16	RT1: TC = 117.8 kW, TH = 130 Kw Q = 5 664 l/s	No	1			
	Supply, deliver and install special duct connections between rooftop units and supply/return ducting complete with flex connection, Double Skin and externally clad:					
17	RT1			SUM		
	Supply, deliver and install rectangular sound attenuators:1450x1450x1200L					
18	RT1	No	2			
	Electrical					
	Supply, deliver and install electrical distribution/control boards complete and including all switchgear, cabling to units cable trays, connections, terminations and all work required to fully commission the unit:					
19	RT1	No	1			
	AC Drain					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver and install Galv pipe piping complete with all ancillaries, brackets and accessories.					
20	Ø50mm Glav pipe	m	12			
21	Ø50mm Glav pipe	No	6			
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
22	Timber frame	No	2			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 4

Gymnasium

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	205		
Total Brought Forward from Page No.	206		
Total Brought Forward from Page No.	207		
Carried Forward to Sectional Summary: 4		R	

Item No			Quantity	Rate	Amount R	
	Bill 5: Kitchen					
	Canopy					
	Supply, deliver and install stainless steel canopy including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
1	C 1 - Kitchen Extract Island Canopy c/w drip trays and filters s/s c/w filters 2000 x 2000mm	No	1			
	Ducting					
	Supply, deliver and install uninsulated insulated galvanised sheet metal ducting including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
2	CE1: Straight - 350x350	m	2			
3	CE1: Straight - 700x350	m	10			
4	CE2: Bend 90° - 700x350	No	4			
5	CE3: Bend 90° - 700x350	No	1			
6	CE4: Equal Square to Round - 350x700 > Ø400	No	1			
7	CE5: Lobster Bend 90° c/w Cowl and mesh - Ø400	No	1			
8	Ø350 flexible ducting	m	12			
	Air Terminals					
9	RAG 1: Grille c/w Ø350Spigot - 600x600 c/w plith box 600x600 x300mm	No	8			
	Fans					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver and install extract fans complete with ancillaries, brackets, mounting feet, flexible collar, etc.:					
10	F7 Axial Fan spark proof Ø400mm 2200l/s 400V c/w 1.5 POD Sound Attenuator c/w Menilx.Include Contactor + O/L. Also include a Push-Button ON/OFF C/W Variable Speed Drive.	No	1			
	Electrical					
	Supply, deliver and install all electrical work controls and labour complete for fresh air fans					
11	Electrical connection	No	1			
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
12	Timber frame	No	1			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 5

Kitchen

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	209		
Total Brought Forward from Page No.	210		
Carried Forward to Sectional Summary: 4		R	

Item No			Quantity	Rate	Amount R	
	Bill 6: Combo Court					
	Ducting					
	Supply, deliver and install insulated 25mm FRK galvanised sheet metal ducting including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
1	S1: Bend 90° Double Skin - 1450x1450	No	6			
2	S2: Straight Double Skin - 1450x1450	m	6			
3	S3: Straight c/w 25mm FRK - 1450x1450	m	36			
4	S3: Straight Double Skin - 1450x1450	m	14			
5	S4: Bend 90° c/w FRK 25mm - 1450x1450	No	6			
6	S5: Flat on Side Taper c/w 25mm FRK - 1450x1450 > 1450x1000	No	2			
7	S6: Straight c/w 25mm FRK - 1450x1000	m	20			
8	S7: Flat on Side Taper c/w 25mm FRK - 1450x1000 > 1000x1000	No	2			
9	S8: Straight c/w 25mm FRK - 1000x1000	m	22			
10	S9: Flat on Side Taper c/w 25mm FRK - 1000x1000 > 550x1000	No	2			
11	S10: Straight c/w 25mm FRK - 550x1000	m	22			
12	S11: Straight c/w 25mm FRK - Ø710	m	160			
13	DD: Dummy Duct Straight c/w 25mm FRK -	m	30			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Ø710					
14	C1: Endcap - 550x1000	No	2			
15	C2: Spigot - Ø710	No	40			
16	C3: Endcap - Ø710	No	16			
17	C10: Endcap - 1000x1000	No	1			
	Air Terminals					
18	SAG 1: Ø400 Variable Core Fixed Vane c/w Ø400 Spigot	No	40			
19	RAG 1: Return Air Grille - 2000x1500	No	6			
	Evaporative Cooler					
	Evaporative cooler floor standing Supply, deliver, Install and commission evaporative cooler units complete as specified:complete as specified, c/w pump, cooling pads, all control wiring, thermostats and remote control. Lifting and rigging Evaporative Cooler Mini-Cell Chilled Pad Technology or similar approved					
20	EV1: Q = 9120 l/s, @150Pa 4.5kW,3ph 400V	No	2			
	Powder coated brackets for units c/w vibration mountings, tico pads, welded as specified:					
21	50x50x5.0mm x16m angle iron c/w 150x150x5mm base plate 4 off			SUM		
22	Hail guards on all sides	No	2			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver and install special duct connections between evap cooler supply /return ducting complete with flex connection Double Skin and externally clad:					
23	EV1	No	2			
	Electrical					
	Supply, deliver and install all electrical work controls and labour complete for fresh air fans					
24	Electrical connection	No	2			
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
25	Timber frame	No	2			
	AC Drain					
	Supply, deliver and install Galv pipe piping complete with all ancillaries, brackets and accessories.					
26	Ø50mm Glav pipe	m	12			
27	Ø50mm Glav pipe	No	6			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 6

Combo Court

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	212		
Total Brought Forward from Page No.	213		
Total Brought Forward from Page No.	214		
Carried Forward to Sectional Summary: 4		R	

Item No			Quantity	Rate	Amount R	
	Bill 7: Change Rooms Ventilation, Air Terminals and AC					
	Extract Air					
	Ducting					
	Supply, deliver and install uninsulated insulated galvanised sheet metal ducting including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
1	E1: Equal Square to Round - 400x800 > Ø315	No	2			
2	E2: Equal Square to Round - Ø315 > 450x450	No	2			
3	E3: Straight - 450x450	m	20			
4	E4: Straight - 250x250	m	8			
5	E5: Bend 90° - 250x250	No	2			
6	E6: Bend 90° - 450x450	No	2			
7	C8: Endcap - 250x250	No	2			
8	C7: Spigot/Shoe - 250x250	No	2			
9	C5: Spigot - Ø200	No	32			
10	C9: Endcap - 450x450	No	2			
11	VCD1: Volume Control Damper - Ø200	No	32			
12	Ø200 flexible ducting	m	60			
13	Ø350 flexible ducting	m	12			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Air Terminals					
14	WL 3: Hinged Weater Louvre - 400x800	No	2			
15	DG 1: Door Grille - 300x300	No	8			
16	DV 1: Disc Valve - Ø200	No	32			
17	RAG 1: Grille c/w Ø350Spigot - 600x600	No	8			
	c/w plith box 600x600 x300mm					
	Fans					
	Supply, deliver and install extract fans complete with ancillaries, brackets, mounting feet, flexible collar, etc.:					
18	F2, Ø300 mm, 150 l/s@50Pa Window Wall Fan 1ph c/w brackets electrical isolator with 7 day timer	No	5			
19	F3, Ø315 mm, 1080 l/s@150Pa Axial flow fan 3ph c/w 2 off sound attenuators, hangers & electrical isolator with 7 day timer	No	2			
	Electrical					
	Supply, deliver and install all electrical work controls and labour complete for fresh air fans					
20	Electrical connection	No	7			
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
21	Timber frame	No	7			
	Air Conditioning Units					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver, install and commission inverter type units R410a complete with all electrical work, trunking, coated brackets and cables for complete installation as per project drawings and specifications:					
22	AC-12 Cassette split units of Cooling 3.52kW and Heating 3.81kW	No	1			
	Refrigerant piping					
	Supply, Deliver and install refrigerant piping c/w armoflex. Vapor seal to expose oudoor piping					
23	AC-12	m	6			
	AC Drain					
	Supply, deliver and install uPVC drain piping complete with all ancillaries, brackets and accessories. First 2m with armoflex					
24	Ø32mm uPVC (blue) pipe	m	10			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4
MECHANICAL INSTALLATION - HVAC
Bill No. 7
Change Rooms
Tender Bills of Quantities
Independent Development Trust (IDT)

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 7

Change Rooms

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	216		
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Total Brought Forward from Page No.	218		
Carried Forward to Sectional Summary: 4		R	

Item No			Quantity	Rate	Amount R	
	Bill 8: Mezzanine Ventilation, Air Terminals and AC					
	Fresh Air					
	Ducting					
	Supply, deliver and install uninsulated insulated galvanised sheet metal ducting including, ancillaries, hangers, seals, brackets, etc. all as per drawings and specified:					
1	FA1: Equal Square to Round - 300x300 > Ø250	No	4			
2	FA 2: Straight - 300x300	m	8			
3	C4: Endcap - 300x300	No	2			
4	C5: Spigot - Ø200	No	2			
5	Ø200 flexible ducting	m	6			
	Air Terminals					
6	WL 1: Hinged Weather Louvre c/w 50mm Pleated Filter - 300x300	No	2			
7	DV 1: Disc Valve - Ø200	No	2			
	Fans					
	Supply, deliver and install extract fans complete with ancillaries, brackets, mounting feet, flexible collar, etc.:					
8	F1, Ø250 mm, 200 l/s@250Pa Inline tube fan 1ph c/w 2 off sound attenuators, hangers & electrical isolator with 7 day timer	No	2			
	Air Conditioning Units					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver, install and commission inverter type units R410a complete with all electrical work, trunking, coated brackets and cables for complete installation as per project drawings and specifications:					
9	AC-15 Cassette split units of Cooling 5.27kW and Heating 5.57kW	No	2			
	Refrigerant piping					
	Supply, Deliver and install refrigerant piping c/w armoflex. Vapor seal to expose oudoor piping					
10	AC-15	m	50			
	AC Drain					
	Supply, deliver and install uPVC drain piping complete with all ancillaries, brackets and accessories. First 2m with armoflex					
11	Ø32mm uPVC (blue) pipe	m	30			
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
12	Timber frame	No	2			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 8

Mezz

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	220		
Total Brought Forward from Page No.	221		
Carried Forward to Sectional Summary: 4		R	

Item No			Quantity	Rate	Amount R	
	Bill 9: Groundkeeper Ventilation, Air Terminals and AC					
	Fans					
	Supply, deliver and install extract fans complete with ancillaries, brackets, mounting feet, flexible collar, etc.:					
1	F2, Ø300 mm, 150 l/s@50Pa Window Wall Fan 1ph c/w brackets electrical isolator with 7 day timer	No	2			
2	F5, Ø250 mm, 120 l/s@30Pa Plate Fan 1ph c/w brackets electrical isolator with 7 day timer	No	3			
3	F6, Ø300 mm, 60 l/s@30Pa Ceiling Mounted Fan 1ph c/w brackets electrical isolator with 7 day timer	No	1			
	Air Terminals					
4	DG 1: Door Grille - 300x300	No	3			
	Air Conditioning Units					
	Supply, deliver, install and commission inverter type units R410a complete with all electrical work, trunking, coated brackets and cables for complete installation as per project drawings and specifications:					
5	AC-16 Midwall split units of Cooling 3.52kW and Heating 3.81kW	No	1			
	Refrigerant piping					
	Supply, Deliver and install refrigerant piping c/w armoflex. Vapor seal to expose oudoor piping					
6	AC-16	m	8			
	AC Drain					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver and install uPVC drain piping complete with all ancillaries, brackets and accessories. First 2m with armoflex					
7	Ø32mm uPVC (blue) pipe	m	8			
	Electrical					
	Supply, deliver and install all electrical work controls and labour complete for fresh air fans					
8	Electrical connection	No	5			
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
9	Timber frame	No	5			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 9

Groundkeeper

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	223		
Total Brought Forward from Page No.	224		
Carried Forward to Sectional Summary: 4		R	

Item No			Quantity	Rate	Amount R	
	Bill 10: Guardhouse Ventilation,Air Terminals and AC					
	Fans					
	Supply, deliver and install extract fans complete with ancillaries, brackets, mounting feet, flexible collar, etc.:					
1	F2, Ø300 mm, 150 l/s@50Pa Window Wall Fan 1ph c/w brackets electrical isolator with 7 day timer	No	1			
2	F6, Ø300 mm, 60 l/s@30Pa Ceiling Mounted Fan 1ph c/w brackets electrical isolator with 7 day timer	No	1			
	Air Terminals					
3	DG 1: Door Grille - 300x300	No	1			
4	WL 1: Hinged Weather Louvre c/w 50mm Pleated Filter - 300x300	No	2			
	Air Conditioning Units					
	Supply, deliver, install and commission inverter type units R410a complete with all electrical work, trunking, coated brackets and cables for complete installation as per project drawings and specifications:					
5	AC-17 Midwall split units of Cooling 3.52kW and Heating 3.81kW	No	1			
	Refrigerant piping					
	Supply, Deliver and install refrigerant piping c/w armoflex. Vapor seal to expose oudoor piping					
6	AC-17	m	3			
	AC Drain					
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Supply, deliver and install uPVC drain piping complete with all ancillaries, brackets and accessories. First 2m with armoflex					
7	Ø32mm uPVC (blue) pipe	m	5			
	Builders Works					
	Making holes in walls with timber frame sheet sleeve complete with sealing and making good					
8	Timber frame	No	2			
	Miscellaneous					
	Any items not specified mentioned and not covered in the items above - specify					
	Carried to Collection			R		

Section No. 4

MECHANICAL INSTALLATION - HVAC

Bill No. 10

Guardhouse

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	226		
Total Brought Forward from Page No.	227		

Carried Forward to Sectional Summary: 4 R

Section No. 4

MECHANICAL INSTALLATION - HVAC

SECTION SUMMARY - MECHANICAL INSTALLATION - HVAC

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4	Gymnasium	208		
5	Kitchen	211		
6	Combo Court	215		
7	Change Rooms	219		
8	Mezz	222		
9	Groundkeeper	225		
10	Guardhouse	228		

Carried to Final Summary R

Item No			Quantity	Rate	Amount R	
	Bill 1					
1	Allow fully for compliance with the Conditions of Contract as is applicable to the Main Contract.			SUM		
2	Allow for compliance with general matters relating to these specifications.			SUM		
3	Allow for compliance with Occupational Health & Safety Act and Regulations and other statutory requirements. COVID 19 Incl			SUM		
4	Operating and maintenance manuals including shop and cutting list with drawings and all as-built drawings.	Sets	3.0			
5	Allow for the guarantee of the complete installation for a period of 12 months.			SUM		
6	Allow for the full maintenance of the installation for a period of 12 months			SUM		
7	Allow for the provision of electrical certificate of compliance for all mechanical related electrical work			SUM		
8	Connect with dia. 150 mm galvanised pipe above ground to dia. 150 mm HDPe connection supplied by civil contractor to tank:			SUM		
	Carried Forward to Sectional Summary: 5			R		

Item No			Quantity	Rate	Amount R	
	Bill 2					
	PLANT AND VALVE ROOM					
1	150 mm diameter alarm valve, installed on ground floor valve chamber, signage, booster points, flow proving apparatus, locks and chains, pressure gauges, hydraulic alarm gong, all according to specifications			SUM		
2	25mm diameter Saunders remote test valve	No	2			
3	Diesel driven fire pump complete with diesel engine with water to water heat exchanger, batteries, mechanical 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 the contractor			SUM		
4	Diesel tank complete with hand operated diesel pump, level indicator, fuel line, fuel filter, installed mounted on a stand next to diesel driven pump, including all fixing, with sufficient diesel storage for 8 hours of operation of diesel driven pump under full load			SUM		
5	Electrical control panel for diesel driven fire pump including voltmeters, battery chargers, tachometers, emergency stop/start, controls, 12V operation from batteries, hour meters, etc. all fully designed, supplied, tested, installed and commissioned as described in SANS 10287 and to specifications			SUM		
6	Exhaust pipe, fully lagged, from diesel driven pump to outside of building, installed, including all fixing, as per specifications.			SUM		
7	Bench test certificate for diesel driven pump by an approved testing authority as required by ASIB 0287			SUM		
	Carried to Collection			R		

Item No		Quantity	Rate	Amount R	
8	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		SUM		
9	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		SUM		
10	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		SUM		
11	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		SUM		
12	Sectional galvanised steel fire water storage tank, 180 000 litre, installed on concrete plinth at ground level , including all fixing all to SANS 10287 and specifications		SUM		
13	Pump room pipe work, fittings and associated equipment between pump system, storage tank and building delivery point, installed, including all fixing as per specification and drawings		SUM		
14	Pump room valves, supervised valves, strainers, non-return valves, expansion bellows, and associated equipment between pump system, storage tank and building delivery point, installed, including all fixing as per specification and drawings		SUM		
	Carried to Collection		R		

Item No		Quantity	Rate	Amount R	
15	Pump discharge test arrangement including orifice plates, gauges, valves and discharge pipe to storage tank, installed, including all fixing as per SANS 10287 requirements		SUM		
16	Water pipe cooling circuit from water to water heat exchanger on diesel driven fire pump engine to storage tank including all fittings, piping, sight glasses and bracketing, installed, including all fixing		SUM		
17	Pressure switch starting arrangement including pressure switch piping, fittings, valves, bracketing and connections between delivery piping and starting arrangement, installed, including all fixing		SUM		
18	Drains pipe work from pump drip tray and suction header drain point, installed, including all fixing		SUM		
19	Vortex inhibitors and connecting piping, overflow piping, etc. complete with all fittings, installed, including all fixing		SUM		
20	Signage, notices, identification tags, labels etc. in sprinkler		SUM		
	pump room and at storage tank as required by local authority and SANS 10287, installed, including all fixing				
21	Locking devices, such as pad locks, chains etc all complete, installed. Valves shall be locked in the operating position		SUM		
22	Level indicator devices to tank(s) with indication positioned inside pump room, installed, including all fixing		SUM		
23	Supply, installation, testing and commissioning of cables, cable trays cable supports, cable ladders, cable glands, shrouds, accessories etc. for a complete sprinkler pump installation		SUM		
	Carried to Collection		R		

Section No. 5
MECHANICAL INSTALLATION - FIRE PROTECTION
Bill No. 2
Plant and Valve room
Tender Bills of Quantities
Independent Development Trust (IDT)

Item No			Quantity	Rate	Amount R	
24	Supply and installation of the complete annunciator panel as described in the specification			SUM		
25	Supply and installation of all interlining controls with the fire detection installation			SUM		
26	Supply and installation of siren flashing strobe beacon system on outside wall of pump room			SUM		
27	Duel Fire Booster Point installed in Plant room room, 65 mm brass steamer connectors	No	1			
28	Pressure gauge (0-2500 kPa) complete with cock, installed, including all fixing	No	1			
	(for hoses and hydrants)					
29	100 mm diameter geared butterfly isolating valve, 16 bar rated (for hoses and hydrants)	No	2			
	Carried to Collection			R		

Section No. 5

MECHANICAL INSTALLATION - FIRE PROTECTION

Bill No. 2

Plant and Valve room

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	231		
Total Brought Forward from Page No.	232		
Total Brought Forward from Page No.	233		
Total Brought Forward from Page No.	234		
Carried Forward to Sectional Summary: 5		R	

Item No			Quantity	Rate	Amount R	
	Bill 3					
	FIRE HYDRANTS AND HOSE REELS					
	Galvanised pipe work, medium grade to SANS 62, installed against walls, under slabs and in ceilings, including all fixing and running joints, all to specifications:					
1	25 mm diameter pipe	m	100			
2	32 mm diameter pipe	m	40			
3	40 mm diameter pipe	m	1			
4	50 mm diameter pipe	m	1			
5	80 mm diameter pipe	m	1			
6	100 mm diameter pipe	m	1			
7	150 mm diameter pipe	m	160			
	Galvanised mild steel elbows, installed, including all fixing, all to specifications:					
8	25 mm diameter elbow	No	46			
9	32 mm diameter elbow	No	25			
10	40 mm diameter elbow	No	1			
11	80 mm diameter elbow	No	1			
12	100 mm diameter elbow	No	1			
13	150 mm diameter elbow	No	55			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Galvanised mild steel equal tees, installed, including all fixing, all to specifications:					
14	32 mm diameter tee	No	12			
15	40 mm diameter tee	No	1			
16	50 mm diameter tee	No	1			
17	80 mm diameter tee	No	1			
18	100 mm diameter tee	No	1			
19	150 mm diameter tee	No	20			
	Galvanised mild steel reducing tees, installed, including all fixing, all to specifications:					
20	32 x 25 mm diameter reducing tee	No	16			
21	50 x 32 mm diameter reducing tee	No	1			
22	100 x 50 mm diameter reducing tee	No	16			
23	150 x 100 mm diameter reducing tee	No	16			
	Galvanised mild steel reducing bushes, installed, including all fixing, all to specifications:					
24	32 x 25 mm diameter reducing	No	25			
25	40 x 32 mm diameter reducing	No	1			
26	50 x 25 mm diameter reducing	No	1			
27	50 x 32 mm diameter reducing	No	1			
28	80 x 25 mm diameter reducing	No	1			
29	100 x 32 mm diameter reducing	No	20			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
30	100 x 50 mm diameter reducing	No	1			
31	100 x 80 mm diameter reducing	No	1			
32	150 x 100 mm diameter reducing	No	20			
	Galvanised mild steel unions, installed, including all fixing, all to specifications:					
33	25 mm diameter union	No	30			
	Galvanised mild steel sockets, installed, including all fixing, all to specifications:					
34	25 mm diameter socket	No	30			
35	32 mm diameter socket	No	10			
36	50 mm diameter socket	No	1			
37	80 mm diameter socket	No	1			
	Grooved connections, installed, including all fixing, all to specifications:					
38	80 mm diameter grooved fitting	No	1			
39	100 mm diameter grooved fitting	No	1			
40	150 mm diameter grooved fitting	No	35			
	Galvanised mild steel nipples, installed, including all fixing, all to specifications:					
41	25 mm diameter nipple	No	35			
42	32 mm diameter nipple	No	1			
43	40 mm diameter nipple	No	1			
44	50 mm diameter nipple	No	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
45	80 mm diameter nipple	No	1			
46	SANS approved fire hose reel complete with 30m PVC hose, chromium plated stopcock, shut-off nozzle and wall bracket, installed, including all fixing, all to specifications	No	10			
47	Fire hose reel close back steel cabinet, installed, including all fixing	No	6			
48	SANS approved fire hydrant, right angled complete, installed, including all fixing, all to specifications	No	6			
49	4,5 Kg Pressurised Dry Chemical Powder Portable fire extinguisher with hook made of 120 x 20 x 2 mm mild steel strip bent to form hook, screwed twice on and including wrough SA Pine backboard size 100 x 600 x 20 mm thick with chamfered edges, plugged and screwed to wall and finished with two coats of waterproof varnish all according to specifications.	No	26			
50	9 Kg Pressurised Dry Chemical Powder Portable fire extinguisher with hook made of 120 x 20 x 2 mm mild steel strip bent to form hook, screwed twice on and including wrough SA Pine backboard size 100 x 600 x 20 mm thick with chamfered edges, plugged and screwed to wall and finished with two coats of waterproof varnish all according to specifications.	No	2			
51	5 Kg Pressurised CO2 Portable fire extinguisher with hook made of 120 x 20 x 2 mm mild steel strip bent to form hook, screwed twice on and including wrough SA Pine backboard size 100 x 600 x 20 mm thick with chamfered edges, plugged and screwed to wall and finished with two coats of waterproof varnish all according to specifications.	No	29			
52	Fire extinguisher steel cabinet, installed, including all fixing	No	14			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
53	Fire hose reel weather proof glass fibre cabinet, installed, including all fixing	No	1			
	Clean with galvanising cleaning agent, one coat calcium plumbate, one coat matt undercoat and one coat enamel paint:					
54	Piping not exceeding 50 mm	m	140			
55	Piping exceeding 50 mm	m	160			
	Carried to Collection			R		

Section No. 5

MECHANICAL INSTALLATION - FIRE PROTECTION

Bill No. 3

Fire Hydrants and Hose Reels

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	236		
Total Brought Forward from Page No.	237		
Total Brought Forward from Page No.	238		
Total Brought Forward from Page No.	239		
Total Brought Forward from Page No.	240		
Carried Forward to Sectional Summary: 5		R	

Item No			Quantity	Rate	Amount R	
	Bill 4					
	Smoke Extact					
	Supply, deliver and install smoke extract fans complete with ancillaries, brackets, mounting feet, etc.:					
1	EX1 Axial smoke extact Fan ESP Ø1000mm 2200l/s, 150Pa class H high temperature motor, 300°C for 120 minutes motor rating, complete, Include Contactor + O/L.	No	5			
2	Hoisting and rigging of equipment into position, complete	No	5			
3	Electrical connection Supply, deliver and install all electrical work controls and labour complete, fire rate cable all equipment in cable trays terminating in isolators	No	5			
4	Supporting frame 76 x 38mm x 6m taper flange channel c/w weld, beackets, painted completed	No	16			
	Miscellaneous					
	Any items not specified mentioned and not					
	covered in the items above - specify					
	Carried Forward to Sectional Summary: 5			R		

Item No		Quantity	Rate	Amount R	
	Bill 5				
	GENERAL				
1	Supply PVC or galvanised steel sleeves for casting into concrete slabs		SUM		
2	Supply PVC or galvanised steel sleeves for building into brick walls		SUM		
3	Core drilling where PVC or galvanised steel sleeves can not be used		SUM		
4	Signage, regulation type 190 x 190 mm fire signs, photoliminecent type framed in aluminium frame Coding, marking and labelling of equipment		SUM		
5	Pressure testing and commissioning of the complete fire installation		SUM		
6	ASIB inspection of the complete fire installation		SUM		
7	Training and instruction in use of plant for end-user operational staff		SUM		
	Any items not specifically mentioned and not covered in the items above – specify				
	Carried Forward to Sectional Summary: 5		R		

Section No. 5

MECHANICAL INSTALLATION - FIRE PROTECTION

SECTION SUMMARY - MECHANICAL INSTALLATION - FIRE PROTECTION

Bill No		Page No		Amount R
1	Preliminaries and General	230		
2	Plant and Valve room	235		
3	Fire Hydrants and Hose Reels	241		
4	Smoke Extract	242		
5	General	243		

Carried to Final Summary R

Item No			Quantity	Rate	Amount R	
	BILL NO 1					
	LANDSCAPING					
	Maintenance period					
	Attention is drawn to the maintenance period prescribed in the specification					
	SOFT LANDSCAPING					
	Site clearance					
1	Stripping average 200mm thick layer of top soil and stockpiling on site	m2	139			
	Ground preparation					
2	Cultivation and preparation of areas to be planted	m2	139			
	Topsoil, compost, lime and fertilizer					
3	Topsoil supplied by the contractor in plant beds, grassed areas and holes for trees, shrubs, etc	m3	21			
4	Compost in plant beds, holes for trees, shrubs, etc	m3	14			
	Grassing, ground covers, etc					
5	LM Grass roll on lawn	m2	139			
	HARD LANDSCAPING					
	20mm Crushed stone dressing evenly spread with larger stones around outlets					
6	100mm Thick to falls	m2	433			
	Carried to Final Summary			R		

Item No		Quantity	Rate	Amount R	
	BILL NO.1				
	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.				
	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.				
	Carried to Collection		R		
	Section No. 7 **ROADS, PAVINGS, ETC** **Bill No. 1** **Earthworks** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***				

Item No		Quantity	Rate	Amount R	
	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. **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. **Carried to Collection**		R		

Item No			Quantity	Rate	Amount R	
	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.					
	SITE CLEARANCE, ETC.					
	Site clearance, etc.:					
1	Stripping average 200mm thick layer of top soil and stockpiling on site.	m2	4,575			
	BULK EXCAVATION					
	Filling with G6 approved material supplied and carted onto site by the Contractor, compacted to a density of at least 97% Mod. AASHTO maximum density.:					
2	Under floors, pavings, etc.	m3	686			
	Coarse river sand filling compacted to 100% Mod. AASHTO maximum density.:					
3	Under floors, etc.	m3	229			
	Keeping excavations free of water.:					
4	Keeping excavations free of water other than subterranean water.		Item			
	Prescribed density tests on filling.:					
5	"Modified AASHTO Density" test.	No	91			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
6	"Road Indicator" test	No	46			
	Compaction of surfaces.:					
7	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	4,575			
	SOIL POISONING					
	Approved brand of weed killer mixed and applied in accordance with manufacturer's instruction.:					
8	Under floors and pavings, etc. (Provisional).	m2	4,575			
	Carried to Collection			R		

Section No. 7

ROADS, PAVINGS, ETC

Bill No. 1

Earthworks

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	246		
Total Brought Forward from Page No.	247		
Total Brought Forward from Page No.	248		
Total Brought Forward from Page No.	249		

Carried Forward to Sectional Summary: 7 R

Item No			Quantity	Rate	Amount R	
	BILL NO.2					
	MASONRY					
	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.					
	ROADWORK, PARKING AREAS AND PAVING					
	Paving is to be laid to herringbone pattern on 20mm (thickness after final compaction) clean river sand (preparation of ground or filling elsewhere)					
	Clean sand is to be swept into joints between roadstones					
	Paving to be laid on subgrade conforming to SANS 1200 D Degree Of Accuracy					
	Paving to be inspected and re-sanded after three months. (Broken/ cracked pavers will not be accepted).					
	Paving should be laid in accordance with SANS 1200 MJ and CMA concrete paving manuals					
	Paving of light grey paving blocks with butt joints on 25mm thick river sand bed with sand and cement mixture swept and vibrated into joints and hosed down:					
1	80mm Paving laid in double ZigZag pattern with a minimum longitudinal fall of 1% on a transverse fall of at least 2%.	m2	2,436			
2	220mm Wide brick-on-flat header course edgings on 200mm thick mortar bed.	m	795			
3	Fair circular cutting	m	99			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Paving of 25MPa non-interlocking charcoal concrete cobbles with butt joints on 25mm thick river sand bed with sand and cement mixture swept and vibrated into joints and hosed down:					
4	200 x 200 x 55mm Thick Paving laid in Non-interlocking pattern with a minimum longitudinal fall of 1% on a transverse fall of at least 2%.	m2	1,021			
5	220mm Wide brick-on-flat header course edgings on 200mm thick mortar bed.	m	502			
6	Fair circular cutting	m	25			
	Paving of 25MPa non-interlocking Tan concrete cobbles with butt joints on 25mm thick river sand bed with sand and cement mixture swept and vibrated into joints and hosed down:					
7	200 x 200 x 55mm Thick Paving laid in Non-interlocking pattern with a minimum longitudinal fall of 1% on a transverse fall of at least 2%.	m2	901			
8	200mm Wide brick-on-flat header course edgings on 200mm thick mortar bed.	m	681			
9	Fair circular cutting	m	34			
	Paving of Smartstone non-interlocking cosmopolitan pavers with butt joints on 25mm thick river sand bed with sand and cement mixture swept and vibrated into joints and hosed down:					
10	98,5 x 98,5 x 60mm Thick Paving laid in Non-interlocking pattern, to falls.	m2	217			
11	98,5 x 98,5 x 60mm Thick Parking bay indicators laid in Non-interlocking pattern, to falls.	m2	77			
12	220mm Wide brick-on-flat header course edgings on 200mm thick mortar bed.	m	124			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
13	Fair circular cutting	m	6			
	Pre cast concrete kerbing finished smooth on exposed surfaces including building in, bedding, jointing, pointing, concrete haunching, excavation, backfilling, ramming, etc. complete as indicated.:					
14	Barrier kerb (Figure 3) overall size 150 x 300mm high.	m	987			
15	Barrier kerb circular on plan (Figure 3) overall size 150 x 300mm high to radius not exceeding 4m radius, formed with short lengths of straight kerbs.	m	99			
16	Mountable kerb (Figure 8a) overall size 300 x 150mm high.	m	7			
	Carried to Collection			R		

Section No. 7

ROADS, PAVINGS, ETC

Bill No. 2

Masonry

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	251		
Total Brought Forward from Page No.	252		
Total Brought Forward from Page No.	253		
Carried Forward to Sectional Summary: 7		R	

Item No			Quantity	Rate	Amount R	
	ROADS, PAVINGS, ETC.					
	BILL NO.3					
	PAINTWORK					
	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.					
	COLOURS					
	Unless otherwise described, all paintwork shall be deemed to have a colour value in excess of 7 the Munsel system in accordance with SANS 1091					
	PAINTWORK, ETC. TO NEW WORK					
	Prepare surfaces, wash thoroughly, remove loose material, leave to dry and apply two coats SABS approved water borne acrylic road marking paint:					
1	Markings on paving surfaces, exceeding 100mm wide.	m2	56			
2	Markings on paving surfaces, 100mm wide.	m	15			
3	Disabled parking sign in 1000 x 1000mm surround.	No	2			
	Carried Forward to Sectional Summary: 7				R	

Section No. 7

ROADS, PAVINGS, ETC

SECTION SUMMARY - ROADS, PAVINGS, ETC

Bill No		Page No		Amount R
1	Earthworks	250		
2	Masonry	254		
3	Paintwork	255		

Carried to Final Summary R

Item No		Quantity	Rate	Amount R	
	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 Lead pipes and traps All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel				
	Carried to Collection		R		

Item No		Quantity	Rate	Amount 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 Wire gratings Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings 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 to Collection		R		
	Section No. 8 **BULK WATER SUPPLY** **Bill No. 1** **Plumbing and Drainage** ***Tender Bills of Quantities*** ***Independent Development Trust (IDT)***				

Item No			Quantity	Rate	Amount 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					
	WATER SUPPLIES					
	HDPE/12 Pipes					
1	50mm Pipes laid in and including trenches not exceeding 1m deep.	m	52			
2	75 x 50mm Reducing tee.	No	1			
3	50mm Bend	No	1			
4	50mm Diameter non-return valve	No	1			
	mPVC/09 pipes:					
5	63mm Pipes laid in and including trenches not exceeding 1m deep.	m	274			
	Extra over mPVC pipes for fittings:					
6	63mm bend.	No	6			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
7	63mm junction.	No	3			
8	63mm End cap.	No	1			
	Municipal connection:					
9	Municipal connection.		Item			
	Sundries					
10	500 x 500mm Cast iron stopcock box including brick chamber below not exceeding 1000mm deep internally	No	1			
11	80mm Meter or valve box including brick chamber below not exceeding 1mm deep internally	No	1			
	Testing:					
12	Testing water pipe system.		Item			
	Carried to Collection			R		

Section No. 8

BULK WATER SUPPLY

Bill No. 1

Plumbing and Drainage

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	257		
Total Brought Forward from Page No.	258		
Total Brought Forward from Page No.	259		
Total Brought Forward from Page No.	260		
Carried to Final Summary		R	

Item No		Quantity	Rate	Amount R	
	BILL NO. 11				
	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 to Collection		R		

Item No			Quantity	Rate	Amount 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>** **Class 6 Corflo uPVC pipes:**					
1	110mm Pipes laid vertically or ramped to backdrops, rodding eyes, etc (no excavations).	m	25			
2	110mm Pipes laid in and including trenches not exceeding 1m deep.	m	178			
3	110mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep.	m	51			
4	160mm Pipes laid in and including trenches not exceeding 1m deep.	m	219			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Extra over class 6 Corflo uPVC pipes for fittings:					
5	110mm Bend.	No	10			
6	110mm Junction.	No	20			
7	160mm Reducing junction.	No	3			
8	110mm Access bend.	No	3			
9	160mm Access bend.	No	3			
10	110mm Access junction.	No	3			
11	160mm Access junction.	No	3			
12	110mm Access reducing junction.	No	3			
13	160mm Access reducing junction.	No	3			
14	110mm Access double junction.	No	3			
15	160mm Access double junction.	No	3			
16	110mm Rodding eye including cover plate, unreinforced concrete surround, etc.	No	10			
	Sumps, catchpits, inspection chambers, etc (gratings and covers elsewhere)					
17	Precast concrete inspection chamber size 750mm internal diameter, not exceeding 1000mm 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	6			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
18	Precast concrete inspection chamber 1000mm internal diameter exceeding 1000mm but not exceeding 1500mm 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	5			
	Gratings, covers, etc:					
19	560mm Diameter precast concrete manhole cover lid slab (Type 4A), all in accordance with SABS 558	No	11			
20	Lifting key for manhole cover	No	11			
	Pipe connections:					
21	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:					
22	15MPa/19mm Unreinforced concrete encasing minimum 160mm thick all round 110mm pipes (pipes elsewhere measured) including any additional excavation, formwork, etc	m	10			
	Sundries:					
23	Testing soil drainage system.		Item			
	Carried to Collection			R		

Section No. 9

SOIL DRAINAGE

Bill No. 1

Plumbing and Drainage

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	262		
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Total Brought Forward from Page No.	264		
Total Brought Forward from Page No.	265		
Carried to Final Summary		R	

Item No		Quantity	Rate	Amount R	
	BILL NO.1				
	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.				
	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.				
	Carried to Collection		R		

Item No		Quantity	Rate	Amount R	
	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. **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. **Carried to Collection**			R	

Item No			Quantity	Rate	Amount R	
	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. **<u>STORMWATER DRAINAGE</u>** **Excavate in compacted pickable material not exceeding 2m deep below reduced or filled up ground level and deposit on site where directed.**					
1	Excavate for surface trenches.	m3	22			
	Excavate back from the vertical face of excavations to the extent required for the insertion and removal of formwork and afterwards return, fill in and ram.					
2	Excavate back from the face of trench excavations exceeding 500mm and not exceeding deep and 300 mm between the structure and the sides to be excavated back.	m2	62			
	Sundries					
3	Extra over all excavations in compacted pickable material for excavation in soft rock as described.	m3	1			
4	Extra over all excavations in compacted pickable material for excavation in hard rock as described.	m3	1			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Extra over all excavations for carting away					
5	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	22			
	Risk of collapse of excavations					
6	Allow for the risk of collapse to sides of trenches and holes from ground level not exceeding 1,5 m deep.	m2	62			
	Keeping excavations free of water					
7	Allow for keeping excavations free of water and mud by pumping or bailing.		Item			
	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.					
8	To bottoms and sides of trenches etc.	m2	105			
	Prescribed density tests on filling					
9	"Modified AASHTO Density" test	No	2			
	Carried to Collection			R		

Section No. 10

STORMWATER DRAINAGE

Bill No. 1

Earthworks

COLLECTION

	Page No		Amount R
Total Brought Forward from Page No.	267		
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Total Brought Forward from Page No.	269		
Total Brought Forward from Page No.	270		
Carried Forward to Sectional Summary: 10		R	

Item No			Quantity	Rate	Amount R	
	15MPa/19mm concrete cast against excavated faces					
1	Surface blinding under footings and bases	m3	2			
	25MPa/19mm concrete					
2	Strip footings	m3	2			
3	Bottoms of floor ducts, splayed.	m3	1			
4	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	1			
	Carried Forward to Sectional Summary: 10			R		

Item No			Quantity	Rate	Amount R	
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar					
1	One brick walls	m2	49			
	Brickwork reinforcement					
2	75mm Wide reinforcement built in horizontally	m	658			
3	150mm Wide reinforcement built in horizontally	m	658			
	Carried Forward to Sectional Summary: 10			R		

Item No			Quantity	Rate	Amount R	
	Gratings, covers, etc					
1	300 x 750mm Linrex Ductile or equal and approved Iron dished grating and frame	No	82			
2	40 x 40 x 5mm Mild steel Angle Iron frame	t	0.36			
3	48mm Hold down rods to frame	t	0.08			
	Carried Forward to Sectional Summary: 10			R		

Section No. 10
STORMWATER DRAINAGE
Bill No. 4
Metal Works
Tender Bills of Quantities
Independent Development Trust (IDT)

Section No. 10

STORMWATER DRAINAGE

SECTION SUMMARY - STORMWATER DRAINAGE

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2	Concrete, Formwork and Reinforcement	272		
3	Masonry	273		
4	Metal Works	274		

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Item No			Quantity	Rate	Amount R	
	BILL NO.3					
	THE FOLLOWING WORK IN EXTERNAL FENCING					
	FENCING					
	Invisible wall or equal and approved Mesh Fencing, etc.:					
1	2400mm High hot dipped galvanised steel fencing, comprising of 600mm bitumen coated welded mesh anti-burrow underdig extension to be secured to the panel's lower edge integrated angle acc. to the strict recommendations and specifications of the manufacturer; 2400 x 2900mm wide mesh panels of 4mm vertical and 4mm horizontal wire apertures, with 76,2 horizontal x 12,7mm vertical aperture openings; 80 x 80 square-shaped 2400mm high posts with welded post caps, including shear nuts, washers and M8 steel bolts, excavation, risk collapse, backfilling compacted to 93% Mod AASHTO density, etc. All to be fully marine fusion bonded powder coating of approved colour.	m	442			
2	2100mm High hot dipped galvanised steel fencing, comprising of 600mm bitumen coated welded mesh anti-burrow underdig extension to be secured to the panel's lower edge integrated angle acc. to the strict recommendations and specifications of the manufacturer; 2100 x 2900mm wide mesh panels of 4mm vertical and 4mm horizontal wire apertures, with 76,2 horizontal x 12,7mm vertical aperture openings; 80 x 80 square-shaped 2400mm high posts with welded post caps, including shear nuts, washers and M8 steel bolts, excavation, risk collapse, backfilling compacted to 93% Mod AASHTO density, etc. All to be fully marine fusion bonded powder coating of approved colour.	m	44			
3	100mm High toughened shark tooth spikes bolted to fencing panel with anti-vandal bolts.	m	486			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	Invisible or similar and approved mild steel mesh Security Gates including lock, etc. complete:					
4	Double swing gate, size 1000 x 2100mm high fitted with similar and equal to the fence ant-climb on top structures and ant-burrow at the bottom structures, including hinges, locks, barrel bolts, and all accessories complete as per manufacturer's instructions.	No	1			
5	Single swing pedestrian gate, size 1000 x 2400mm high fitted with similar and equal to the fence ant-climb on top structures and ant-burrow at the bottom structures, including hinges, locks, barrel bolts, and all accessories complete as per manufacturer's instructions.	No	1			
	Invisible or equal and approved mild steel mesh service Vehicular Sliding Gates including ground beam, lock, etc. complete.:					
6	5000 x 2400mm High gate, fitted with similar and or equal to the fence ant-climb on top structures and ant-burrow at the bottom structures, including hinges, locks, barrel bolts, and all accessories complete as per manufacturer's instructions.	No	1			
	Carried to Collection			R		

Section No. 11

FENCING RAILING

Bill No. 1

Fencing Railing

COLLECTION

	Page No		Amount R
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Item No			Quantity	Rate	Amount R	
	BILL NO.1					
	OCCUPATIONAL SAFETY & HEALTH					
	Part 1 General					
	1.1 Preparation and submission of Health and Safety Plan.					
1	The preparation and submission of the Safety and Health Plan which must be based on the issued Health and Safety Specifications.			SUM		
	1.2 Preparartion and submission of the Health and Safety File					
2	The prepation and submission of the Health and Safety File that contains all the required documentation as would be necessary for the proper administration of OHS on site.			SUM		
	1.3 OHS Management System					
3	Monitoring, review and maintenance of Occupational Safety and Health management system as and when required.			SUM		
	1.4 The Safety and Health Committee.					
	Conduct OHS meetings and inspections during the duration of the contract as below;					
4	a) Health and Safety committee meetings held monthly for the duration of the contract.	No	15.00			
5	b) Site Safety and Health inspection for the workplace (once in every four months) for the duration of the contract.	No	15.00			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
	1.5 Appointment of Heath and Safety Officer					
6	Full time competent Health and Safety Officer for the entire duration of the contract (per month).	No	15.00			
	1.6 Provision of computer and other resources for the Health and Safety Officer					
7	Provision of computer and other necessary resources for the Health and Safety Officer to be able to perform the required administrative functions and responsibilities.			SUM		
	1.7 Training of Health and Safety Representatives					
8	Training of two Health and Safety Representatives to enable proper execution of responsibilities in terms of Section 17 of the Act.	No	2.00			
	1.8 Medical Check Up					
9	Conduct health fitness by a registered medical practitioner at least on yearly basis to ensure their operator/workers are in good health before and during their engagement in the period of contract.			SUM		
	1.9 Personal Protective Equipment					
10	Provide, maintain and replace any damage personal protective equipment as per specification to all employees.			SUM		
	1.10 Health and Safety Training					
	Plan and conduct relevant safety and health training plan as per site requirement.					
11	Fire Fighting Training	No	2.00			
12	Fall Protection Planner	No	1.00			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
13	Scaffold Erectors	No	1.00			
14	Scaffold Inspector	No	1.00			
15	Scaffold Supervisor	No	1.00			
16	Scaffold Team Leader	No	1.00			
	1.11 Hazards Identification Risk Assessment And Risk Control (HIRARC)					
17	Prepare and undertake Hazards Identification, Risk Assessment and Risk controls (HIRARC) for all construction activities.			SUM		
	1.12 Monthly Report					
18	Printing/copying, papers, inks, binding or related cost in providing the monthly report within the contract period inclusive of any investigation expertise.			SUM		
	1.13 Notification of Accidents, Dangerous Occurrences, Occupational Diseases					
19	Provision for Accident / Incident Investigation Report inclusive for the cost to engage if there is any third parties involve (competent person / specialist) to investigate any accident at workplace.			SUM		
	1.14 General Signage					
	Safety signage at workplace to ensure the workers and the public are aware about safety within the contract period.					
	Provide, install and maintain the following approved signage					
20	Construction Signboard indicatring mandatory PPE to be worn on site.			SUM		
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
21	Signs indicating what to do and where to report with directional signs			SUM		
22	Emergency exit routes and assembly point.			SUM		
23	Any other safety signs as instructed and approved by the S.O.			SUM		
24	"No unauthorised entry" signage around site perimeter.			SUM		
	1.15 Site Safety and Health Information Board					
	Provide at least one (1) information board to update any HSE information to the employee at worksite.					
25	Provision and maintenance of Health and Safety information board (min area 2.9 sq m) including regular updating of safety and health information.	No	1.00			
	1.16 First Aid Facilities.					
	Provision of complete set of first aid kit for office and quarters within the period of contract. Minimum requirement to be at site are two competent / trained First Aider and two complete first aid kits.					
26	a) To provide suitable two (2) trained person to attend first-aid treatment.	No	2.00			
27	b) To provide and maintain first aid kit.	No	1.00			
	1.17 Portable Fire Extinguisher.					
	Provide enough fire extinguishers at the workplace. The locations of the fire extinguishers include the site office, quarters and standby for any hot works activities within the contract period.					
28	Provision and maintenance of approved fire extinguishers complete with relevant approved signage.			SUM		
	Carried to Collection			R		

Item No		Quantity	Rate	Amount R	
	Part 2 Amenities and Facilities				
	2.6 Flammable Liquid Store				
29	Erection of flammable liquid store.		SUM		
30	Provsion of relevant signage for flammable liquid store.		SUM		
31	Provion of fire extinguisher for flammable liquid store		SUM		
	Part 3 Fall Prevention				
	3.1 Unprotected Sides and Edges				
32	Supply, install and erect guardrail, barricade and toe board (where required) to exposed edges / openings but not limited to:		SUM		
	a) Building perimeter openings				
	b) Lift shaft openings				
	c) Floor openings				
	d) Working platform				
	e) Loading platform				
	Note: Contractor to calculate the length of the opening base on the proposed design of the building.				
33	Provide, install and maintain temporary hand railings to the stairs use as an access and egress.		SUM		
34	Provision of providing temporary closure by using sufficient thick and strong material for any floor openings where when erecting guardrail / barricade are not suitable.		SUM		
	Carried to Collection		R		

Item No			Quantity	Rate	Amount R	
	3.2 Safety nets					
35	Install and maintain safety net as close as possible to the working level. Should it be on the outside of the structure, the outer edges should be higher that the inner edge. Contractor to calculate the area to be close/cover base on the proposed design of the building.			SUM		
	3.3 Individual fall arrest systems					
	Fall arrest systems must be provided for every workers working at height above 1.8m. Double lanyards to be equipped on the safety harness.					
36	Provide, anchor /install and maintain individual fall arrest systems that includes :			SUM		
	a) Inertia reel systems;					
	b) Safety harness;					
	c) Lanyards; and					
	d) Static lines					
	3.4 Safety Signage					
	Provide the safety signs at workplace to ensure awareness for workers and public.					
	Provision for the following safety signage but not limited to:					
37	a) Beware of falling object	No	1.00			
38	b) Use safety harness	No	1.00			
39	c) Use safe access and egress	No	1.00			
40	d) Beware of openings	No	1.00			
	Carried to Collection			R		

Item No			Quantity	Rate	Amount R	
41	e) Use rubbish / debris chute	No	1.00			
	Carried to Collection			R		

Section No. 12
OCCUPATIONAL HEALTH AND SAFETY
Bill No. 1
Occupational Health and Safety
Tender Bills of Quantities
Independent Development Trust (IDT)

Section No. 12

OCCUPATIONAL HEALTH AND SAFETY

Bill No. 1

Occupational Health and Safety

COLLECTION

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FINAL SUMMARY

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6	LANDSCAPING	245		
7	ROADS, PAVINGS, ETC	256		
8	BULK WATER SUPPLY	261		
9	SOIL DRAINAGE	266		
10	STORMWATER DRAINAGE	275		
11	FENCING RAILING	278		
12	OCCUPATIONAL HEALTH AND SAFETY	286		
	Sub Total		R	
	Provide the amount of R 2,650,000.00 (Two Million, Six Hundred and Fifty Thousand Rands) for CPAP as indicated in the Preliminaries Bill to be used in terms of the Principal Building Agreement.	Item		2,650,000.00
	Sub-total		R	
	Allow a contingency amount of R1 500 000.00 to be used as directed by the Principal Agent	Item		1,500,000.00
	Sub Total		R	
			R	

Tender Bills of Quantities
Independent Development Trust (IDT)

Section No	**FINAL SUMMARY**	Page No		Amount R	
			R		
	Allow a CIDB Skills Development (CSDG) amount of 0.5% of the Construction Cost to be used as directed by the Principal Agent	Item			
	Main Contractor's profit and attendance allowance for developing skills (CSDG Allowance)		%		
	Allow an Indirect Targeting for Enterprise Development amount of 5% of the Construction Cost to be used as directed by the Principal Agent	Item			
	Main Contractor's profit and attendance allowance for Indirect Targeting for Enterprise Development		%		
	Allow a CIDB B.U.I.L.D Fund Assessment Fee of 0.2% of the Construction Cost to be used as directed by the Principal Agent	Item			
	Sub Total		R		
	VALUE ADDED TAX		R		
	Carried to Form of Tender		R		
	Tender Bills of Quantities ***Independent Development Trust (IDT)***				