

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<u>SECTION NO. 1 PRELIMINARIES</u>					
<u>BILL NO. 1</u>					
<u>PRELIMINARIES</u>					
<u>NOTES</u>					
<p>1) The "General Conditions of Contract" as included in the "Standard Bidding Documents for Open Advertised Bidding (Works)" shall be the form approved.</p> <p>2) Bidders are referred to the abovementioned 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.</p> <p>3) Bidders are referred to page 1/6 item F regarding the adjustment of preliminaries in any/all compensation events when pricing these preliminaries items in respect to "Fixed, Time or Value" relation.</p>					
GENERAL CONDITION OF CONTRACT					
GENERAL					
1	Clause 1: Definitions Fixed:..... Time:..... Value:.....	Item	1		
2	Clause 2: Interpretations Fixed:..... Time:..... Value:.....	Item	1		
3	Clause 3: Language and Law Fixed:..... Time:..... Value:.....	Item	1		
4	Clause 4: Project manager's decisions Fixed:..... Time:..... Value:.....	Item	1		
5	Clause 5: Delegation Fixed:..... Time:..... Value:.....	Item	1		
6	Clause 6: Communications Fixed:..... Time:..... Value:.....	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT

7	Clause 7: Sub-contracting Fixed:..... Time:..... Value:.....	Item	1		
8	Clause 8: Other contractors Fixed:..... Time:..... Value:.....	Item	1		
9	Clause 9: Personnel and Equipment Fixed:..... Time:..... Value:.....	Item	1		
10	Clause 10: Employer's and Contractor's Risks Fixed:..... Time:..... Value:.....	Item	1		
11	Clause 11: Employer's Risks Fixed:..... Time:..... Value:.....	Item	1		
12	Clause 12: Contractor's Risks Fixed:..... Time:..... Value:.....	Item	1		
13	Clause 13: Insurance Fixed:..... Time:..... Value:.....	Item	1		
14	Clause 14: Site Data Fixed:..... Time:..... Value:.....	Item	1		
15	Clause 15: Contractor to Construct the Works Fixed:..... Time:..... Value:.....	Item	1		
16	Clause 16: The Works to Be Completed by the Intended Completion Date Fixed:..... Time:..... Value:.....	Item	1		
17	Clause 17: Approval by the Project Manager Fixed:..... Time:..... Value:.....	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
18	Clause 18: Safety Fixed:..... Time:.....	Item	1		

	Value:.....				
19	Clause 19: Discoveries Fixed:..... Time:..... Value:.....	Item	1		
20	Clause 20: Possession of the Site Fixed:..... Time:..... Value:.....	Item	1		
21	Clause 21: Access to the Site Fixed:..... Time:..... Value:.....	Item	1		
22	Clause 22: Instructions Fixed:..... Time:..... Value:.....	Item	1		
23	Clause 23: Appointment of the Adjudicator Fixed:..... Time:..... Value:.....	Item	1		
24	Clause 24: Procedure for Disputes Fixed:..... Time:..... Value:.....	Item	1		
	<u>TIME CONTROL</u>				
25	Clause 25: Program Fixed:..... Time:..... Value:.....	Item	1		
26	Clause 26: Extension of the Intended Completion Date Fixed:..... Time:..... Value:.....	Item	1		
27	Clause 27: Acceleration Fixed:..... Time:..... Value:.....	Item	1		
28	Clause 28: Delays Ordered by the Project Manager Fixed:..... Time:..... Value:.....	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
29	Clause 29: Management Meetings Fixed:..... Time:..... Value:.....	Item	1		

30	Clause 30: Early Warning Fixed:..... Time:..... Value:.....	Item	1		
	<u>QUALITY CONTROL</u>				
31	Clause 31: Identifying Defects Fixed:..... Time:..... Value:.....	Item	1		
32	Clause 32: Tests Fixed:..... Time:..... Value:.....	Item	1		
33	Clause 33: Correction of Defects Fixed:..... Time:..... Value:.....	Item	1		
34	Clause 34: Uncorrected Defects Fixed:..... Time:..... Value:.....	Item	1		
	<u>COST CONTROL</u>				
35	Clause 35: Contract Price Fixed:..... Time:..... Value:.....	Item	1		
36	Clause 36: Changes in the Contract Price Fixed:..... Time:..... Value:.....	Item	1		
37	Clause 37: Variations Fixed:..... Time:..... Value:.....	Item	1		
38	Clause 38: Cash Flow Forecasts Fixed:..... Time:..... Value:.....	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
39	Clause 39: Payment Certificates Fixed:..... Time:..... Value:.....	Item	1		
40	Clause 40: Payments Fixed:.....	Item	1		

	Time:..... Value:.....				
41	Clause 41: Compensation Events Notwithstanding the provisions of this clause, the preliminaries shall be adjusted on the basis of fixed, time and value related items. Fixed:..... Time:..... Value:.....	Item	1		
42	Clause 42: Tax Fixed:..... Time:..... Value:.....	Item	1		
43	Clause 43: Currencies Fixed:..... Time:..... Value:.....	Item	1		
44	Clause 44: Price Adjustment Fixed:..... Time:..... Value:.....	Item	1		
45	Clause 45: Retention Fixed:..... Time:..... Value:.....	Item	1		
46	Clause 46: Liquidated Damages Fixed:..... Time:..... Value:.....	Item	1		
47	Clause 47: Bonus Fixed:..... Time:..... Value:.....	Item	1		
48	Clause 48: Advance Payment Fixed:..... Time:..... Value:.....	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
49	Clause 49: Securities Fixed:..... Time:..... Value:.....	Item	1		
50	Clause 50: Dayworks Fixed:..... Time:..... Value:.....	Item	1		
51	Clause 51: Cost of Repairs	Item	1		

	Fixed:..... Time:..... Value:.....				
52	Clause 52: Labour Clause Fixed:..... Time:..... Value:.....	Item	1		
<u>FINISHING THE CONTRACT</u>					
53	Clause 53: Completion Fixed:..... Time:..... Value:.....	Item	1		
54	Clause 54: Taking Over Fixed:..... Time:..... Value:.....	Item	1		
55	Clause 55: Final Account Fixed:..... Time:..... Value:.....	Item	1		
56	Clause 56: Operating and Maintenance Manuals Fixed:..... Time:.....	Item	1		
57	Clause 57: Termination Fixed:..... Time:..... Value:.....	Item	1		
58	Clause 58: Fraud and Corruption Fixed:..... Time:..... Value:.....	Item	1		
59	Clause 59: Payment upon Termination Fixed:..... Time:..... Value:.....	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
60	Clause 60: Property Fixed:..... Time:..... Value:.....	Item	1		
61	Clause 61: Release from Performance Fixed:..... Time:..... Value:.....	Item	1		
<u>SPECIFIC PRELIMINARIES</u>					
62	Samples of materials	Item	1		

63	<p>The contractor shall furnish at his own cost such samples of materials and specimens of colours as may be called for by the Project Manager for his approval.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
64	<p>The contractor shall furnish such samples of workmanship as may be called for by the Project Manager for his approval. Where an assembly of various elements of the buildings is required, which is not incorporated in the works, this shall be arranged by the contractor. Any cost involved shall be borne by the employer.</p> <p>Fixed:..... Time:..... Value:.....</p> <p>Ordering of materials</p> <p>Should the Bills of Quantities be used for ordering materials, this shall be entirely at the contractor's risk.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
65	<p>Enclosure of works</p> <p>The contractor shall provide, erect, alter as necessary, maintain and remove and make good at completion suitable hoardings complete with gantries, fans, safety screens, barriers, access gates, covered gangways, steel sections at crane lifts, splayed corners, returned ends, etc. all as necessary for the enclosure of the works and the protection of the general public and others.</p>	Item	1		

	<p>The contractor shall pay and recover all deposits and pay all fees and charges in connection with the hoarding and the use of the pavements throughout the whole course of the contract, all in accordance with any Act of Parliament, regulation or by-law of any local authority.</p> <p>Fixed:..... Time:..... Value:.....</p>				
66	<p>Pavement crossings and parking meters</p> <p>The contractor shall pay and recover all deposits and pay all fees and charges in connections with and/or obtain permission for the suspension of parking facilities and for pavement or street encroachment and or crossings and the removal and eventual reinstatement of any local authority's parking meters</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
67	<p>Special scaffolding</p> <p>No special scaffolding is measured as these Bills of Quantities are based on the sixth edition of the Standard System for Measuring Building Work.</p> <p>The Contractor shall provide, maintain and remove on completion special scaffolding for areas exceeding 5m above floor level, for use of all trades, as defined under the "Description of the Works".</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
68	<p>Contractor's offices and sheds</p> <p>The contractor shall provide and maintain temporary sheds and offices for the proper storage of materials and for the use of the workmen and shall remove such temporary sheds and offices on completion.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
69	<p>Offices</p> <p>The contractor shall provide, maintain and remove on completion office accommodation for meetings held on site. The office shall be provided with tables and chairs sufficient for the maximum number of persons attending meetings and shall be kept clean.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
70	<p>Main notice board</p>	Item	1		

	<p>The contractor shall provide, erect where directed, maintain and remove on completion the main noticeboard complying with the requirements of the Institute of Namibian Architects, with the title of the project and the names of the employer, the architect, the quantity surveyor, the consulting engineers and the contractor signwritten thereon.</p> <p>Fixed:..... Time:..... Value:.....</p>				
71	<p>Water</p> <p>The contractor shall provide all water for the works, including all necessary temporary plumbing, removing same and making good on completion.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
72	<p>Electricity and lighting</p> <p>The contractor shall provide all necessary electricity and artificial lighting for the works, including all necessary temporary installation work, removing same and making good on completion</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
73	<p>Telephones</p> <p>The contractor shall provide, maintain and remove on completion a PT telephone on site for use by all persons engaged upon the works and shall be entitled to recover the cost of outgoing calls from those making them.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
74	<p>Toilets</p> <p>The contractor shall provide, maintain in a thoroughly clean and tidy condition proper toilets for the use of the workmen and remove same on completion.</p>	Item	1		

	Fixed:..... Time:..... Value:.....				
75	<p>Payment of preliminaries</p> <p>The amount to be included in each monthly certificate in respect of preliminaries costs shall be calculated from the priced items within the preliminaries section of the bills of quantities.</p> <p>The contractor and project manager shall agree a division of the priced preliminaries items into:</p> <p>1) an initial or establishment charge, payment of which shall be made to the contractor on proof that the relevant expenditures have been made;</p> <p>2) a monthly charge, and</p> <p>3) a final or dis-establishment charge</p> <p>Should the contractor and project manager be unable to agree such division then the project manager shall make a fair and reasonable division.</p> <p>In arriving at such division cognisance shall be taken of such factors as:</p> <p>1) Premiums for policies of insurance and performance guarantees being renewable annually,</p> <p>2) Plant, scaffolding and the like remaining the property of the contractor or the hiring company and the capital cost thereof not being treated as part of the initial charge.</p> <p>In the event of an extension of time for the completion of the works the monthly charge be recalculated on the same basis as originally but taking into account the revised contract period and the amounts already paid to the contractor.</p>	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Fixed:..... Time:..... Value:.....				
76	<p>Protection</p> <p>The contractor shall provide for the protection of all work for which a certificate of practical completion has not been issued and which is liable to be damaged from any cause. The contractor shall be responsible for any damage which may occur and shall make good at his own expense.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		
77	Protection of existing and/or partially occupied works	Item	1		

78	<p>The contractor shall provide all reasonable measures necessary to protect the existing and/or partially occupied works to ensure that they are not damaged and he shall remove such protection on completion.</p> <p>Fixed:..... Time:..... Value:.....</p> <p>Site security</p>	Item	1		
79	<p>The contractor shall provide all watching and lighting necessary for general site security.</p> <p>Fixed:..... Time:..... Value:.....</p> <p>Notice before covering work</p>	Item	1		
80	<p>The contractor shall give adequate notice to the project manager whenever any work or materials which are subjected to the project manager's inspection or remeasurement are to be covered in or concealed in any way. In default of such notice being received such work or materials shall be uncovered and later made good at the contractor's expense.</p> <p>Fixed:..... Time:..... Value:.....</p> <p>Disturbance</p>	Item	1		
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
81	<p>The contractor shall execute the whole of the works with a minimum of disturbance to the adjoining premises, any parts of the works already handed over and the occupants of those premises and/or parts.</p> <p>Fixed:..... Time:..... Value:.....</p> <p>Clearing and cleaning</p>	Item	1		-
82	<p>The contractor shall regularly clean and clear away all rubbish and excess materials as the works proceed and, on completion, leave the works in a clean and satisfactory state for immediate use and occupation.</p> <p>Fixed:..... Time:..... Value:.....</p> <p>Vermin</p>	Item	1		-

83	<p>The contractor shall take all necessary precautions to keep the works and site free from vermin during construction and shall leave the works vermin free on completion.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		-
83	<p>Workmen's Compensation Insurance.</p> <p>The Contractor and domestic sub-contractors shall insure workmen in terms of the Employee Compensation Act 5 of 1995 and shall deposit immediately with the Project Manager written confirmation of evidence of registration under the Workmen's Compensation Act when signing the Contract.</p>	Item	1		-
84	<p>Persons not falling under the abovementioned Act must be insured under individual Personal Accident Insurance policies to the satisfaction of the Project Manager.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		-
84	<p>Open Fires.</p> <p>No open fires will be permitted except in such places as are approved by the Principal Agent. Any workmen or labourers lighting fires in unauthorised places are to be immediately dismissed.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		-
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
85	<p>Blasting</p> <p>The Contractor shall take all responsibility during blasting operations, should any be necessary, and must observe all conditions set forth in Government and Local Authority Regulations. The use of explosives is left to the discretion of the Contractor who must indemnify the Employer against any claims for damages to persons or property on or near the site from any cause whatsoever arising out of the use of explosives. The Contractor will be held solely responsible for and must immediately make good, at his own expense, any damage that may occur through the use of explosives.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		-
86	As built drawings	Item	1		-

87	<p>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 architect and the structural engineer for their records.</p> <p>The contractor shall furnish the Project Manager with a set of marked drawings indicating the positions of all plumbing and drainage pipe work as actually built.</p> <p>Fixed:..... Time:..... Value:.....</p> <p>Protection of trees</p> <p>Only those trees as are indicated by the Project Manager shall be removed. All other trees are to be protected during the building operations and no workmen may damage these trees in any way. The Contractor is to note that some trees may occur within the area of building operations. Before removing such trees, the Contractor is to obtain specific instructions from the Project Manager as whether such trees may be removed or not.</p> <p>Fixed:..... Time:..... Value:.....</p>	Item	1		-
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Carried to Final Summary

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 2 BUILDING WORK</u></p> <p><u>BILL NO. 1</u></p> <p><u>DEMOLITIONS AND ALTERATIONS</u></p> <p>Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.</p> <p>All reusable materials from the alterations such as, but not limited to, windows, doors, door frames, locks, general ironmongery, roof sheeting, trusses, purlins, fencing, carpets, light fittings, switches, plugs, distribution boards, and the like remain the property of the Department of Works and are to be carefully removed and to be handed over to the Employer.</p> <p>Such materials are to be removed and transported to the nearest offices of the Department of Works. The materials delivered to the Department of Works are to be receipted. All other building rubble is to be removed from site to a suitable disposal site to be located by the Contractor.</p>				

	Prices for the demolition of concrete must allow for the cutting up and removal of any steel reinforcement in the concrete.			
	<u>REMOVAL OF EXISTING WORK</u>			
	<u>Interlocking paving or precast slab pavings</u>			
1	Lift up interlocking paving stones or precast paving slabs	m ²	600	-
	END OF BILL			
Carried to Summary of Section No. 2				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 2</u></p> <p><u>EARTHWORKS</u></p> <p><u>FOUNDATIONS (PROVISIONAL)</u></p> <p><u>NOTES</u></p> <p>Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.</p> <p>The responsibility is on the Contractor to satisfy himself as to the nature of the ground conditions, height of water table, etc. and to allow accordingly in his prices.</p> <p>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 created and situated on the building site.</p> <p>The quantities of excavation, filling, carting away, etc. measured are the nett volumes and the Contractor is to make allowances in his prices for the bulking of material.</p> <p>Classification of excavated material</p> <p>Hard rock shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which requires drilling, wedging and splitting or the use of explosives.</p> <p>Soft rock shall mean hard material the removal of which warrants the use of pneumatic tools and includes hard shale, ferricite, compact oukclip and material of similar hardness.</p> <p>Earth shall mean all ground other than that classified as hard rock or soft rock and shall include made-up ground and any loose stones or pieces of concrete not exceeding 0,03 m in volume.</p> <p>All material carted onto the site from the Contractor's own source of supply for use as filling is to be of minimum G7 material.</p> <p>Sub-base material shall conform to the specifications as set out below.</p> <p>Sub-base (SB)</p> <p>Sub-base (G5) material for layer works shall comply with SABS 1200 and the following requirements:</p>				

	Maximum aggregate size: 2/3 layer thickness Grading modulus: At least 1,5 Plasticity index: Less than 10 California Bearing Ratio: At least 45 at 95% Mod AASHTO Compaction: Minimum 95% Mod AASHTO			
	<u>SITE CLEARANCE, ETC.</u>			
2	Digging up and removing rubbish, debris, bottles, paper, vegetation, hedges, shrubs, bushes and trees not exceeding 200mm girth, etc. and grub up all roots	m ²	800	-
	<u>REMOVAL OF TREES, ETC.</u>			
	<u>Cutting down and removing, grubbing up roots and filling in holes :</u>			
3	Tree exceeding 200mm and not exceeding 500mm girth	No	5	-
4	Tree exceeding 500mm and not exceeding 1 000mm girth	No	3	-
5	Tree exceeding 1 000mm and not exceeding 1 500mm girth	No	2	-
	<u>EXCAVATION, FILLING, ETC.</u>			
	<u>Excavation in earth not exceeding 2m deep for :</u>			
6	Trenches	m ³	55	-
	<u>Extra over trench and hole excavations in earth for excavation in :</u>			
7	Soft rock	m ³	6	-
8	Hard rock	m ³	3	-
	<u>Extra over all excavations for carting away :</u>			
9	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m ³	40	-
	<u>Keeping excavations free of water :</u>			
10	Keeping excavations free of water	Item	1	-
	<u>FILLING, COMPACTION, ETC.</u>			
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 98% Mod AASHTO density in layers not exceeding 150mm thick :</u>			
11	Backfilling to trenches, holes, etc.	m ³	15	-
	<u>"G5" quality earth filling supplied by the contractor compacted to 98% Mod AASHTO dry density in layers not exceeding 150mm thick :</u>			
12	Under floors, steps, pavings, etc.	m ³	65	-

	<u>Coarse river sand filling supplied by the contractor :</u>				
13	50mm Thick layer of approved clean earth filling laid over poisoned areas under floors	m3	45		-
	<u>COMPACTION OF SURFACES</u>				
	<u>Compaction of ground surfaces, including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod AASHTO density :</u>				
14	Bottoms of bases and trenches	m ²	62		-
15	Under floors, pavings, etc.	m ²	217		-
	<u>SOIL POISONING</u>				
16	Bottoms and sides of trenches, etc.	m ²	62		-
17	Under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc. filling in furrows and ramming	m ²	434		-
	<u>SOIL TESTING</u>				
	<u>Prescribed density tests on filling :</u>				
18	Allow the provisional amount of N\$ 5,000.00 (FIVE THOUSAND NAMIBIA DOLLARS NETT) for density tests to be deducted in part or whole if not required	Items	1	5,000.00	
	END OF BILL				

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 3</u>				
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
	<u>NOTES :</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.				
	<u>CONCRETE WORK (UNREINFORCED AND REINFORCED)</u>				
	Prices for concrete cast against excavated surfaces shall include for casting against all types of material in the excavations and shall include for additional concrete required in filling to irregularities.				
	Prices for all concrete shall include for forming shaped tops and for striking off and curing of top surfaces of concrete.				
	Prices for concrete in surface beds cast in panels shall include for all formwork, fillets, etc. required in forming the panels.				
	<u>TESTS</u>				
	<u>Test Cubes :</u>				
	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 and to the relevant consulting Engineer.				
	The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect.				
19	Allow for the manufacture of a set of six concrete strength test cubes as described, size 150mm x 150mm x 150mm, transporting to and handing over to an approved testing authority and paying all costs and charges related thereto	No	6		-
	<u>Concrete class 25MPa/19mm in :</u>				
20	Footings, bases and ground beams	m3	13		-
21	Surface beds	m3	33		-
22	Aprons, pavings, ramps, etc cast in panels	m3	10		-
23	Extra for thickening out 75mm thick concrete apron to form toe size 150mm x 150mm deep overall with one edge splayed, including all necessary excavation and dressing of ant treatment and waterproofing membrane around same as required	m	120		-

24	Extra for thickening out 75mm thick concrete apron to form footing size 150mm x 150mm deep overall with one edge splayed, including all necessary excavation and dressing of ant treatment and waterproofing membrane around same as required	m	2	-
<u>CONCRETE SUNDRIES</u>				
<u>Finishing top surfaces of concrete smooth with a wooden float :</u>				
25	Surface beds, slabs, etc	m ²	324	-
<u>Finishing top surfaces of concrete smooth with a steel trowel :</u>				
26	Aprons, pavings, etc	m ²	110	-
<u>FORMWORK</u>				
<u>NOTES:</u>				
<p>Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use</p> <p>The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself</p> <p>Formwork to soffits of solid slabs, etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described</p> <p>Formwork to sides of items described as "in ground" means formwork from top of bearing level to top of surface bed</p> <p>Where a height above bearing level is stated, the bearing level is taken to be the surface bed or slab level as the case may be</p> <p>Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"</p> <p>Irrespective of overall height of columns, walls, etc. all items described as in foundations have been categorised to the top of surface bed level.</p> <p>Unless otherwise described prices for all formwork in superstructure shall include for propping to a height not exceeding 3,5m above bearing level.</p>				
<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>				

	<u>Smooth formwork to sides of :</u>			
27	Edges, risers, ends, etc. not exceeding 300mm high	m	118	-
	<u>Expansion joints with 10mm bitumen impregnated softboard between horizontal concrete and brick surfaces :</u>			
28	10mm Joints not exceeding 300mm wide	m	45	-
	<u>Saw cut joints :</u>			
29	10mm x 3mm Saw cut joints in top of concrete	m	45	-
	<u>REINFORCEMENT</u>			
	<u>Fabric reinforcement:</u>			
30	Wire fabric reinforcement Ref. 193 cast into concrete	m ²	434	-
	END OF BILL			
	Carried to Summary of Section No. 2			-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 4</u>				
	<u>MASONRY</u>				
	<u>NOTES :</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.				
	Brickwork in foundations must include for brick reinforcement in EVERY BRICK COURSE .				
	Brickwork in superstructure (above surface bed level) must include for brick reinforcement every FIFTH BRICK COURSE .				
	<u>BRICK TESTS</u>				
	The costs of testing bricks shall include the cost of providing the necessary bricks for the purpose of testing, for testing costs and for submitting reports on the tests to the Department of Works. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Department of Works.				
31	Making and testing 150 x 150 x 150mm concrete strength test cube	No	6		-
	<u>BRICKWORK IN FOUNDATIONS</u>				
	<u>Brickwork of 4MPa cement bricks in class I mortar</u>				
32	One brick wall	m ²	120		-
	<u>BRICKWORK SUNDRIES</u>				
	<u>Galvanised brick reinforcement</u>				
33	150mm Wide reinforcement built in horizontally (extra for brick lintols or bands)	m	536		-
	END OF BILL				
	Carried to Summary of Section No. 2				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 4</u>				
	<u>WATERPROOFING</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.				
	<u>DAMP PROOFING OF WALLS AND FLOORS</u>				
	<u>One layer of 250 micron "Gunplas USB Green" or other approved waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape or other approved"</u>				
	:				
34	Under floors laid on sandbed (sandbed elsewhere measured) including dressing up against walls, etc.	m ²	434		-
	<u>JOINT SEALANTS, ETC.</u>				
	<u>Two component elastomeric polysulphide sealing compound including backing cord, bond breaker, primer, etc. :</u>				
35	5mm x 10mm Thick in saw cut joints in floors	m	45		-
	<u>Rake out horizontal or vertical edges of fibreboard and point with approved polysulphide sealant in :</u>				
36	10mm x 10mm Thick in expansion joints in floors including raking out expansion joint filler as necessary	m	45		-
	END OF BILL				
Carried to Summary of Section No. 2					-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 5</u>				
	<u>ROOF CONSTRUCTION, ROOF COVERINGS, PRE-FABRICATED WALLS ETC</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.				
	<u>ROOF CONSTRUCTION</u>				
	The following is applicable in respect of roof trusses:				
	Trusses are at maximum 1 200mm centres.				
	Roof covering is off-white chromadeck coated IBR roofsheets				
	Ceilings are 75mm thick profiled sandwich panel construction The references given in the descriptions are to the respective types of trusses detailed on the architect's drawing accompanying these bills of quantities for tender purposes.				
	The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the site before design or fabrication commences				
	<u>Lightweight aluminium steel roof trusses construction:</u>				
37	Roof construction to double pitched roof 15 800mm long x 14 600mm wide and 1 200mm high overall, and lip channel purlins atleast 900mm centres for roof covering to engineers specifications.	No	2		-
	<u>0.5mm 'IBR 686' Aluzinc profile steel troughed roofing and all accessories fixed in strict accordance with the engineer's specifications with fastening brackets and fixing specifications for areas of strong winds according to "Clotan Steel" with all exposed roofing screws, bolts, etc sealed with a suitable acrylic waterproofing system</u>				
38	Roof sheeting in single length sheets	m ²	434		-
39	Ridge capping	m	56		-
39	Tail wall flushing 250mm girth	m	56		-
40	Side wall flushing 250mm girth	m	62		-
	<u>ROOF INSULATION</u>				

	<p><u>4mm "Alucushion® / Bubblefoil® FR (Fire Retardant)" or other approved white polyethylene coated single sided aluminium foil insulation "Code 2906" or other approved laid taut over purlins and fixed concurrent with roof covering, overlapped longitudinally by 100mm, on and including white PVC coated straining wires spaced at 383mm centres, all in strict accordance with the manufacturers specifications :</u></p>				
41	<p>Insulation laid taut over steel purlins (at a minimum of approximately 1 000mm centres) and fixed concurrent with roof covering including straining wires</p>	m ²	434		-
	<p><u>0.5mm Thick "Off-white Chromadeck" or other approved steel profiled wall sheeting formed of 75mm thick polystyrene in-fill panel (15kg/m3), with 0.5mm thick "Chromadeck" or other approved sheeting to both sides, with and including aluminium u-shaped bottom and top channels, mild steel internal and external cover strips between panels and including mild steel angles size 100mm x 100mm x 3mm thick to all external and internal corners, all fixed in accordance with the manufacturer's instructions :</u></p>				
42	<p>Exterior wall panel size 950mm wide x 75mm thick</p>	m ²	306		-
43	<p>Interior wall panel size 950mm wide x 75mm thick</p>	m ²	606		-
	<p>END OF BILL</p>				
	<p>Carried to Summary of Section No. 2</p>				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 6</u></p> <p><u>CARPENTRY AND JOINERY WORK</u></p> <p><u>NOTES:</u></p> <p>Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.</p> <p><u>JOINERY FITTINGS</u></p> <p><u>NOTES:</u></p> <p>Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.</p> <p>Particle board shall comply with the following specifications: -SABS 1300 Particle board: exterior and flooring type -SABS 1301 Particle board: interior type</p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc. Descriptions of hardwood joinery shall be deemed to include pelleting of screw and bolt holes.</p> <p>Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish. All particle or other pressed wood boards with a laminate finish must have a brown backing or balancing veneer on unexposed faces.</p> <p>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, gluing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic finishes, glass, ironmongery, metalwork, paint finishes, etc as specified and prices must include herefore.</p> <p>All cupboard units are to sealed around with an approved silicone sealant at the joints between walls, floors and other finishes and fittings.</p> <p>Worktops, where specified, are to be of 32mm particle board with Delta 90° postformed front edges with 'Formica' HPL or other equal and approved laminate on one side and balancing veneer on underside.</p> <p>Doors, drawer fronts and drawer carcasses are to be of 16mm 'Melawood' or other equal and approved faced both sides with 3mm thick rigid 'Raukantex' or other equal and approved PVC edge strips all round.</p> <p>Drawer carcasses are to have 6mm white faced tempered hardboard bottoms.</p>				

	<p>Handles are to be 'Union' AL5102-25AS cupboard door knobs 25mm diameter or other equal and approved.</p> <p>Doors not exceeding 900mm high are to be fitted with two 110° self closing hinges. Doors higher than 900mm are to have three hinges.</p> <p>Cupboard door locks where specified are to be cupboard cylinder locks. Where lockable cupboard doors are in two leaves, the one leaf is to have a lock as specified and the other leaf is to be fitted with two chromium plated necked cupboard barrel bolts and keeps.</p> <p>Drawers are to be fitted with suitable proprietary drawer slides.</p> <p>Sides, divisions, shelves and bottoms, etc. are to be of 18mm 'Melawood' or other equal and approved fac ed both sides with 3mm thick rigid 'Raukantex' or other equal and approved PVC edge strips all round.</p> <p>Plinths are to be 100mm high with either solid softwood supporting bearers or a proprietary supporting system with adjustable feet. Plinth fronts are to be of two 18mm particle board with 'Deccon' CPL or other equal and approved facing or of 18mm Supawood or other equal and approved painted with and including two coats polyurethane enamel.</p> <p>Prices must include all necessary filler pieces, framing, etc.</p> <p><u>Sink and floor cupboards :</u></p>				
44	Sink cupboard size 5 000mm long x 600mm deep x 900mm high overall fixed complete	No	1		-
45	Floor cupboard size 4 000mm wide x 600mm deep x 900mm high overall	No	1		-
	<u>Wall cupboards :</u>				
46	Wall cupboard size 5 000mm wide x 350mm deep x 700mm high overall fixed complete	No	1		-
47	Wall cupboard size 4 000mm wide x 350mm deep x 700mm high overall fixed complete	No	1		-
	<u>WORK TOPS GENERALLY</u>				
	<u>32mm MDF supawood 'Formica' HPL Laminate finish work tops with post formed front edges</u>				
48	Work top 600mm wide	m	10		-
49	Extra over 600mm wide work top for opening for single or double bowl sin	No	2		-

	<u>32mm MDF supawood with mahogany veneer finish on all side work tops with post formed front edges on 300 x 350mm steel shelf bracket complete with screws color black</u>			
50	Work top 400mm wide	m	18	-
51	Work top 600mm wide	m	18	-
	<u>Dotted line of raiel satin 600mm DIA with table legs size 1000mm high, with 120 x 120 x4mm flat bar steel plate fixed to a 120 x 120 x 16mm supawood piece with aluminium table leg adjuster to support granite counter top.</u>			
52	Granite top 600mm wide	m	10	-
	<u>END OF BILL</u>			
Carried to Summary of Section No. 2				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 7</u>				
	<u>CEILING AND PARTITIONS AND ACCESS FLOORING</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this bill and must be read in conjunction herewith.				
	<u>CEILING</u>				
	<u>NAILED UP CEILING</u>				
	<u>0.5mm Thick "Off-white Chromadeck" or other approved steel profiled ceiling formed of 75mm thick polystyrene in-fill panel (15kg/m3), with 0.5mm thick "Chromadeck" or other approved sheeting to both sides, with and including aluminium u-shaped end channels and cover strips between panels all fixed in accordance with the manufacturer's instructions :</u>				
48	Ceilings	m ²	434		-
	<u>Cornices to ceilings :</u>				
49	"SM25" or other approved cornice	m	685		-
	END OF BILL				
	Carried to Summary of Section No. 2				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 8</u>				
	<u>IRONMONGERY</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant Sections of the Model Preambles to Trades which forms a part of this Bill of Quantities and must be read in conjunction herewith.				
	<u>CATCHES, CABIN HOOKS, ETC.</u>				
	<u>"Union" or other approved :</u>				
50	75mm Stainless steel cabin hook and eye	No	4		-
	<u>SUNDRIES</u>				
51	40mm Diameter black rubber door stop plugged and screwed to brick wall or concrete floor	No	27		-
	<u>BATHROOM FITTINGS</u>				
	<u>"Hansgrohe" or other approved :</u>				
52	"Logis" or other approved wall mounted stainless steel toilet paper holder with cover	No	4		-
	<u>"Franke" or other approved :</u>				
53	"Rodan RODX600 090056" or other approved 0,8mm thick satin finished stainless steel paper towel dispenser size 275mm x 112mm x 355mm high with a capacity of 500-800 towels, inspection windows on the side and "Franke" or other approved standard key, plugged and screwed to tiled wall with stainless steel screws	No	4		-
	<u>"Serra" or other approved :</u>				
54	"Hi Scrub SD1265" or other approved hands-free elbow operated stainless steel soap dispenser	No	4		-
55	"Hi Slimline SD1127" or other approved stainless steel wall mounted waste bin, 22 litre capacity with concealed stainless steel brackets plugged to wall	No	4		-
	<u>4mm Float glass mirror with bevelled and polished edges all round, four times holed for and screwed to prefabricated metal wall with chromium-plated dome-headed capped screws with rubber grommets and double sided adhesive tape :</u>				
56	Mirror size 400mm x 600mm high	No	4		-

<u>BLINDS</u>				
<u>25mm Aluminium "Venetian" or other approved blinds :</u>				
57	Blinds to suit window size 600mm x 600mm high	No	2	-
58	Blinds to suit window size 600mm x 1 200mm high	No	4	-
59	Blinds to suit window size 1 500mm x 1 500mm high	No	17	-
END OF BILL				
Carried to Summary of Section No. 2				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 9</u>				
	<u>STRUCTURAL STEELWORK</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill of Quantities and must be read in conjunction herewith.				
	<u>SUNDRY STRUCTURAL STEELWORK</u>				
	<u>The following in welded columns and beams in single lengths with flat section base, top, bearer and connection plates bolted to steel :</u>				
60	120mm x 120mm x 6.0mm Thick square hollow section columns	t	0.50		-
	<u>Base plates :</u>				
61	220mm x 220mm x 10mm Thick base plate with and including two x 16mm diameter U-shaped holding down bolts approximately 400mm girth overall and bent to detail and cast into concrete	No	4		-
	END OF BILL				
	Carried to Summary of Section No. 2				-
NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT

<u>SECTION NO. 2</u>				
<u>BILL NO. 10</u>				
<u>METALWORK</u>				
<u>NOTES:</u>				
Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill of Quantities and must be read in conjunction herewith.				
<u>WELDED SCREENS, GATES, ETC.</u>				
<u>Purpose made mild steel gates and frames formed of and including 30mm x 30mm square hollow section members and fixed at bottom to concrete complete :</u>				
62	Purpose-made security gates with frame to suit double doors size 900mm x 2 400mm high overall with and including necessary ironmongery, etc.	No	2	-
63	Purpose-made security gates with frame to suit double doors size 1 500mm x 2 400mm high overall with and including necessary ironmongery, etc.	No	2	-
<u>ALUMINIUM DOORS, WINDOWS, ETC</u>				
<u>NOTES:</u>				
Unless otherwise specified, anodising to aluminium must be a minimum of 25 micron covering thickness and must comply with requirements of SABS - Specifications 999.				
Construction shall comply with the minimum performance requirements contained in the relevant "Selection Guides" as published by the Association for Architectural Aluminium Manufacturer's of South Africa (AAAMSA).				
Glazing to windows and doors must be as specified on the drawings and fixed in frames in waterproofing mastic gaskets with glazing beads, or other approved method.				
Prices for aluminium windows and doors must, amongst others, allow for manufacturing, protection during transporting, off loading, storing, setting up, building in, pointing between frame and panel with an approved silicone compound, cleaning up on completion and commissioning to the complete satisfaction of the Principal Agent and/or Architect.				
<u>Natural anodised aluminium doors in and including aluminium door frames, glazed with and including all ironmongery, 5mm toughened safety armourplate glass and fitted with double cylinder lockset and anodsied aluminium furniture, etc., fixed complete :</u>				
63	Single door size 815mm wide x 2 100mm high in and including aluminium frame	No	2	-

64	Single door size 1000mm wide x 2 100mm high in and including aluminium frame	No	2	-
64	Single door size 815mm wide x 2 100mm high in and including aluminium frame with and including 300mm high glazed fixed fanlight over	No	19	-
65	Double sliding door size 1 500mm wide x 2 100mm high in and including aluminium frame	No	2	-
66	Double door size 1 500mm wide x 2 100mm high in and including aluminium frame with and including 300mm high glazed fixed fanlight over	No	2	-
<p><u>Natural anodised aluminium windows, frames, etc. to suit pre-fabricated wall panels with and including 10mm x 10mm aluminium burglar bars, including all ironmongery, making opening in panels, etc. :</u></p>				
67	Window and frame (Type PT66) size 600mm x 600mm high overall with panes glazed in 4mm clear glass	No	2	-
68	Window and frame (Type PT612) size 600mm x 1 200mm high overall with panes glazed in 4mm opaque glass	No	4	-
69	Window and frame (Type PT1515) size 1 500mm x 1 500mm high overall with panes glazed in 4mm clear glass	No	8	-
70	Sliding window and frame (Type SD1515) size 1 500mm x 1 500mm high overall with panes glazed in 4mm clear glass	No	9	-
END OF BILL				

Carried to Summary of Section No. 2					
NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				-
	<u>BILL NO. 11</u>				
	<u>PLASTERING</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill of Quantities and must be read in conjunction herewith.				
	The Contractor must allow for the preparation of all concrete surfaces which are to receive plaster. Brick surfaces to receive plaster include small parts to adjacent flush concrete surfaces.				
	Prices for finishes are to include for all labours including fair, rounded and chamfered edges, trowel cuts, throats, V-joints, angles, channels and dressing into channels and outlets.				
	<u>SCREEDS</u>				
	<u>3:1 Cement screeds trowelled smooth on concrete :</u>				
71	30mm Thick on floors and landings	m ²	102		-
	END OF BILL				

Carried to Summary of Section No. 2					
					-
NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 2</u></p> <p><u>BILL NO. 12</u></p> <p><u>TILLING</u></p> <p><u>NOTES:</u></p> <p>Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill of Quantities and must be read in conjunction herewith.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Descriptions</u></p> <p>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.</p> <p>Unless described as bedded in cement mortar all tiling is to be fixed to plastered walls with an approved quality tile adhesive with continuous horizontal and vertical joints and must be allowed to set for not less than 24 hours before the joints are jointed and pointed all in strict accordance with the manufacturer's instructions.</p> <p>Prices for tiles are to include for tiling to prescribed setting out, for all narrow widths in flush faces caused by openings, all fair edges, for all straight or raking cutting and waste including that required against expansion joints and for all cutting and fitting of tiling around pipes, outlets, etc.</p> <p>Wall tiles are to be well soaked in water before fixing and thoroughly cleaned after fixing. Walls are to be well wetted before the tiling is commenced.</p> <p>Concrete surfaces to receive floor tiling are to be hacked to expose at least 50% of the coarse aggregate after which the surfaces shall be thoroughly washed down and cleaned using a yard broom. A 1:1 cement slurry shall be thoroughly worked into the base concrete with a yard broom. Before the slurry coating has set the mixture for the 3:1 cement mortar bedding shall be laid and the tiles bedded to a true and even surface.</p> <p>Prices for floor tiles are to include for the tiling being laid with not exceeding 8mm wide joints in panels each not exceeding 4m x 4m in area divided with expansion joint strips (separately measured), and for taking all such joints through the mortar bed to the concrete and sealing with an approved sealant. Joints in the concrete sub-floor are to coincide with expansion joints in the tiling.</p>				

	All joints in skirting tiles are to line up with the joints in the floor tiles.			
	<u>FLOOR TILING</u>			
	<u>600mm x 600mm x 8mm Thick full body porcelain floor tiles to 30mm screeds with and including adhesive, including all cutting, jointing and flush pointing with and including an approved tinted waterproof jointing compound :</u>			
72	On floors and landings in square pattern	m ²	434	-
73	Skirting 100mm high	m	388	-
	<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC.</u>			
	<u>"Schluter" or other approved tiling edging, strips, etc.</u>			
	:			
74	On floors and landings in square pattern	m	388	-
	END OF BILL			

Carried to Summary of Section No. 2					
					-
NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 13</u>				
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which form a part of this Bill of Quantities and must be read in conjunction herewith.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<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.				
	<u>Copper pipes</u> 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.				
	<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>Exposed concrete surfaces</u> Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc. shall be finished smooth with plaster.			
	<u>Laying, backfilling, bedding, etc. of pipes</u> Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.			
	<u>RAINWATER DISPOSAL</u>			
	<u>"0.8mm Galvanised sheet iron" or other approved :</u>			
75	100mm x 100mm Eaves gutters	m	56	-
76	Extra over 100mm x 100mm eaves gutter for stopped end	No	8	-
77	Extra over 100mm x 100mm eaves gutter for outlet for 100mm x 100mm pipe	No	8	-
76	100mm x 100mm Rainwater pipes	m	26	-
77	Extra over 100mm x 100mm rainwater pipe for bend	No	16	-
78	Extra over 100mm x 100mm rainwater pipe for shoe	No	8	-
79	Extra over 100mm x 100mm rainwater pipe for eaves or plinth offset 500mm projection	No	8	-
	<u>SANITARY FITTINGS</u>			
	<u>"Franke" or other approved :</u>			
80	"Cascade CDX671" or other approved Grade 304 18/10 satin finished stainless steel double bowl inset sink code "FRA05311954" or other approved size 1 360mm x 500mm wide overall with two 343mm x 410mm x 157mm deep large bowls and one 160mm x 280mm x 139mm deep small bowl, fitted onto cupboard (cupboard elsewhere measured) including 3 No. x 90mm waste fittings	No	2	-
	<u>"Vaal" or other approved :</u>			
81	"Tuscany" white vitreous china basin size 500mm x 415mm with No. 1 taphole, intergrated overflow and chainstay hole with and including "Classic basin pedestal 685mm high bolted to floor with No. 2, 10mm bolts and finished with mildew resistant silicone between basin and pre-fabricated wall	No	4	-
82	"Quartz" code "772800" close coupled 90° outlet closed rim washdown pan and matching 6 litre pushbutton top dual flush cistern code "711139" complete with lid and fitments and purpose made wooden seat code "8515Z000"	No	4	-
	<u>WASTE UNIONS, ETC.</u>			
	<u>Chromium plated :</u>			

83	32mm "Cobra Watertech 301" or other approved basin waste union	No	4	-
84	38mm Chromium plated sink waste union	No	2	-
<u>TRAPS, ETC.</u>				
<u>Chromium plated :</u>				
85	40mm "Cobra Watertech 365/40" or other approved chromium plated deep seal bottle trap with outlet for 40mm diameter pipe	No	4	-
86	"Franke Spazio 2" or other approved two bowl sink trap set	No	2	-
<u>SANITARY PLUMBING</u>				
<u>uPVC waste pipes and fittings as described :</u>				
87	40mm Pipe	m	20	-
88	50mm Pipe	m	30	-
89	110mm Pipe	m	12	-
<u>Extra over uPVC pipes for fittings :</u>				
90	40mm Bend	No	10	-
91	40mm Junction	No	5	-
92	50mm Bend	No	10	-
91	50mm Access bend	No	5	-
92	50mm Junction	No	10	-
93	50mm Access junction	No	5	-
90	110mm Bend	No	8	-
91	110mm Access bend	No	8	-
92	110mm Junction	No	8	-
91	110mm Access junction	No	8	-
92	110mm Reducing junction	No	8	-
93	110mm Access reducing junction	No	8	-
94	110mm Straight or bent pan connector with neoprene collar	No	8	-
<u>Testing :</u>				
95	Allow for testing the whole of the sanitary plumbing installation and for replacing and/or rectifying defective work as directed by the Engineer and re-testing until found to be perfect	Item	1	-
<u>DOMESTIC WATER SUPPLIES</u>				
<u>Note:</u>				

	The hot and cold water services installations are to be executed in strict accordance with the latest revision of the "Code of Practice for Copper Plumbing" issued by the S.A Copper Development Association			
	All surface mounted piping is to be supported at maximum 1,5m centres			
	Fittings to pipes with diameters not exceeding 30mm have not been separated and the Contractor is to allow for this in his prices			
	<u>Class 0 copper pipes and fittings :</u>			
96	15mm Pipe	m	28	-
97	22mm Pipe	m	48	-
	<u>Class 0 copper pipes and fittings :</u>			
98	15mm Fittings	No	48	-
99	22mm Fittings	No	68	-
	<u>VALVES, TAPS, ETC.</u>			
	<u>Brass :</u>			
100	15mm Brass fullway isolating ball valve	No	2	-
	<u>"Cobra Watertech" or other approved :</u>			
101	15mm Code "232-350" angle regulating valve with service pipe 350mm girth complete with nut and wall flange	No	24	-
102	15mm "Protea PA-851" single lever basin mixer	No	4	-
103	15mm "Xena XE-296" or other approved chrome plated 2-handle sink mixer with swivel outlet	No	2	-
	<u>Testing :</u>			
104	Allow for testing the whole of the water supply installation and for replacing and/or rectifying defective work as directed by the Engineer and re-testing until found to be perfect	Item	1	-
	<u>FIRE PROTECTION SERVICES</u>			
105	"Chubb" or other approved wall mounted non-swing fire hose reel complying with SABS No. 543/1973 complete with drum, 30m of 20mm 4-ply red rubber hose fitted with 20mm chromium-plated gun-metal cock and 8mm shut off nozzle, complete with "All-way" hose reel guide fixed to wall with and including wall bracket	No	2	-
106	4.5Kg Approved rechargeable dry chemical powder (DPE) fire extinguisher complete with initial charge fixed to and including a 22mm x 300mm x 400mm red enamel painted wrought hardwood backing board with suitable brackets, etc.	No	4	-

107	9kg Approved rechargeable carbon dioxide fire extinguisher complete with initial charge fixed to and including a 22mm x 300mm x 400mm red enamel painted wrought hardwood backing board with suitable brackets, etc.	No	4	-
	<u>FIRE WATER SUPPLY</u>			
	<u>Medium class galvanised mild steel pipes :</u>			
108	25mm Pipes	m	20	-
109	32mm Pipes	m	60	-
	<u>Extra over medium class galvanised mild steel pipes for the following fittings :</u>			
110	25mm Fittings	No	8	-
111	32mm Elbow	No	4	-
	<u>Valves, etc.:</u>			
111	25mm Flanged non-return valve	No	2	-
112	25mm "Saunders" or other approved diaphragm valve	No	2	-
	<u>Testing :</u>			
112	Allow for testing the whole of the fire water supply installation and for replacing and/or rectifying defective work as directed by the Engineer and re-testing until found to be perfect	Item	1	-
	END OF BILL			

Carried to Summary of Section No. 2					
NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				-
	<u>BILL NO. 14</u>				
	<u>GLAZING</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill of Quantities and must be read in conjunction herewith.				
	<u>GLAZING TO ALUMINIUM FRAMES INCLUDING FRAMES</u>				
	<u>6.76mm HPR Clear intruderprufe laminated safety glass</u>				
113	Panes exceeding 0.5m ² and not exceeding 2m ²	m ²	15		-
	<u>MIRRORS, ETC</u>				
	<u>4mm Silvered float glass copper backed mirrors with polished edges fixed to walls with double sided adhesive tape</u>				
114	Mirror size 600 x 900mm high	No	4		-
	END OF BILL				

Carried to Summary of Section No. 2					
					-
NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 15</u>				
	<u>PAINTWORK</u>				
	<u>NOTES:</u>				
	<p>Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill of Quantities and must be read in conjunction herewith.</p> <p>Where a specific manufacturer's paint products are described in these Bills of Quantities the Contractor is advised that he should price the specific product as specified and that he may only change from the designated product to another product after written consent has been obtained from the Architect, after the closing of tenders. Where applicable the cost of such substitution with another product shall be adjusted by the Quantity Surveyor in the Final Account for this project. The Contractor shall apply all paints in strict accordance with the manufacturer's instructions and after consultation with the manufacturer's authorised representative. Painting shall be done by brush, roller or spraying as recommended by the paint manufacturer (and at the descretion of the Contractor) to produce a finish to the approval of the Architect.</p> <p>No paint shall be applied during cold weather.</p> <p>All materials for paintwork shall be brought onto the site in unopened containers and no adulteration will be allowed. The area of paint measured is the nett area of the final painted surfaces and excludes for paint finishes behind joinery fittings, pinning boards, etc. Prices are to include for cutting to line around such items or for painting behind such items if preferred.</p> <p>Prices for paintwork are to include for all necessary precautions for the protection of finished work including masking or covering all finished paintwork as well as all finished joinery, tiling, floor coverings, etc. during painting. Any damage to such finished work shall be removed, repaired or replaced at the Contractor's own expense. The Contractor shall provide all necessary dust sheets, covers, etc. required during painting. All door handles, locks and other ironmongery, pelmets, electrical switch and socket covers, etc. are to be removed before commencing the painting and are to be refitted after completion of the painting. All paint spots, stains, etc. are to be cleaned off all floors, walls, glass, doors, frames, fittings, etc. after completion of the painting.</p>				

	<p>Prices for painting are to include for painting a one square metre sample panel of all finishing coats and for repeating if required. Only after the written approval by the Architect of the sample panels may the finishing coats be applied.</p> <p>Cellulose fillers such as "Aurora" and "Polyfilla" will not be accepted. Plaster, concrete, fibre cement or timber surfaces are to be filled with "Polycell Mendall 90" or "Pera Universal Repairing Compound" mixed with 30% marble dust in strict accordance with the manufacturer's specifications.</p> <p>Prices for painting on ceilings are to include for painting with a stippled effect roller.</p> <p><u>PAINTWORK TO NEW SURFACES</u></p> <p><u>ON METAL</u></p> <p><u>Touch up factory primer and one coat undercoat and two coats gloss enamel paint</u></p>				
115	Posts, columns, beams, etc.	m ²	5		-
116	Gates and frames, grilles, screens, balustrades, etc. (both sides measured over the full flat area)	m ²	30		-
	END OF BILL				

Carried to Summary of Section No. 2					
					-
NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 16</u>				
	<u>EXTERNAL WORKS</u>				
	<u>NOTES:</u>				
	Attention is directed to the relevant sections of the Model Preambles to All Trades which forms a part of this Bill and must be read in conjunction herewith				
	<u>SEWER RETICULATION</u>				
	<u>uPVC soil pipes and fittings laid in ground or filling of approved granular material to even falls, including all excavation, backfilling, ramming, etc. as described :</u>				
117	50mm Pipe	m	20		-
118	110mm Pipe	m	15		-
119	110mm Pipes vertically or ramped to cleaning eyes	m	2		-
	110mm Pipes laid in and including trenches not exceeding 1m deep				
120		m	30		-
	110mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep				
121		m	30		-
	<u>Extra over uPVC pipes for the following fittings :</u>				
122	50mm Bend	No	4		-
123	50mm Access bend	No	10		-
124	50mm Boss adaptor	No	12		-
125	50mm "Marley WAV 50" or other approved vent valve	No	6		-
126	110mm Bend	No	10		-
127	110mm Long radius bend	No	6		-
128	110mm Junction	No	2		-
129	110mm Access junction	No	8		-
130	110mm Eccentric reducer	No	4		-
	<u>uPVC Gulleys with gulley head and grating encased in concrete :</u>				
131	110mm uPVC overflow gulley "p" trap including joint to uPVC pipe	No	2		-

	<u>Rodding eyes :</u>			
132	100mm Cast iron 45 degree "ABC" or other approved rodding eye fitted to end of 110mm uPVC sewer pipe and cast into and including 25MPa un-reinforced concrete block size 600mm x 600mm x 200mm thick	No	2	-
	<u>Connection to existing :</u>			
133	110mm Diameter connection to existing manhole, including excavating to a depth of approximately 1m, breaking through and forming new pipe inlet in one brick side, making good and back filling	No	1	-
	<u>INSPECTION CHAMBERS, ETC.</u>			
	<u>Note:</u>			
	All inspection chambers are to be in accordance with SABS 1200			-
	<u>In-situ concrete inspection chambers of 275mm thick class 25MPa/19mm reinforced concrete cover slabs with rebated openings for manhole covers (elsewhere measured), 220mm thick one brick walls with staggered step-irons at 300mm centres and 150mm thick class 25MPa/19mm reinforced concrete bases on 50mm thick class 15MPa/19mm concrete blinding projecting 70mm all round, complete with 1:2 cement mortar benching with steel floated top surfaces and all glazed earthenware channels on bottoms :</u>			
134	Inspection chamber size 900mm x 900mm exceeding 750mm not exceeding 1 000mm deep	No	2	-
135	Inspection chamber size 900mm x 900mm exceeding 1 000mm not exceeding 1 250mm deep	No	2	-
	<u>Covers :</u>			
136	450mm Diameter "Besaans du Plessis type 2A" or other approved cast iron heavy duty manhole cover and frame set in position in 3:1 cement mortar over manhole	No	4	-
	<u>SLEEVES</u>			
	<u>Plastic sleeves for pipes exceeding 100mm and not exceeding 200mm diameter:</u>			
137	Sleeves not exceeding 250mm long	No	4	-
	<u>Testing :</u>			
	Allow for testing the whole of the soil drainage installation and for replacing and/or rectifying defective work as directed by the Engineer and re-testing until found to be perfect	Item	1	-

	<u>EXTERNAL WATER SUPPLIES</u>			
	<u>H.D.P.E. type IV pipes class 10 to SABS 533 :</u>			
138	25mm Pipes laid in and including trenches	m	20	-
139	50mm Pipes laid in and including trenches	m	60	-
	<u>Extra over H.D.P.E. type IV pipes class 10 pipes for the following fittings :</u>			
140	25mm Fittings	No	8	-
141	50mm Adaptor	No	6	-
141	50mm Elbow	No	4	-
142	50mm Reducer	No	6	-
143	50mm Tee	No	4	-
	<u>Galvanised mild steel pipes :</u>			
144	25mm Pipe	m	4	-
	<u>Extra over galvanised mild steel pipes for the following fittings :</u>			
145	25mm Fittings	No	8	-
	<u>Valves, taps etc. :</u>			
	<u>Brass :</u>			
146	25mm Bib tap with hose union	No	2	-
147	25mm Isolation valve	No	2	-
	<u>Connection to existing :</u>			
148	50mm Diameter connection to existing water supply, including excavating and exposing existing supply pipe, cutting into and inserting new HDPE and uPVC fittings including all necessary adaptors, etc., to execute joint	No	2	-
	<u>Testing :</u>			
149	Allow for testing the whole of the external water supply installation and for replacing and/or rectifying defective work as directed by the Engineer and re-testing until found to be perfect	Item	2	-
	<u>VALVE CHAMBER</u>			
	<u>Valve chamber formed of one brick wall sides, 220mm thick on 100mm thick class 25MPa/19mm reinforced concrete base with one 50mm diameter drainhole and 100mm thick class 25MPa/19mm reinforced concrete cover slab with rebated opening for 225mm x 225mm cast iron cover and frame :</u>			
147	Valve chamber size 800mm x 800mm internally not exceeding 750mm deep to invert	No	2	-

	<u>COVERS, ETC.</u>			
	<u>Covers, etc. :</u>			
149	225mm x 225mm Cast iron cover and frame "Type 8A M/D Class" or other approved set in position in concrete	No	2	-
	<u>Sundries :</u>			
150	Stopcock box size 250mm x 250mm internally and not less than 650mm deep complete with and including 225mm x 225mm "Type 11B" cast iron valve box with hinged lid	No	2	-
151	30mm x 30mm x 3mm Thick angle section standpipe support 1 100mm long with and including cable ties and cast 400mm deep in and including 200mm x 200mm x 500mm 15MPa/19mm unreinforced concrete base	No	2	-
	<u>SLEEVES</u>			
	<u>Plastic sleeves for pipes not exceeding 100mm diameter :</u>			
152	Sleeves not exceeding 250mm long	No	4	-
	END OF BILL			
Carried to Summary of Section No. 2				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 2</u>				
	<u>BILL NO. 17</u>				
	<u>BUDGETARY ALLOWANCE</u>				
	<u>NOTES:</u>				
	Amounts allowed under this heading will be for work to be executed by the Contractor or sub-contractor and is to be remesured after completion with the rate from the Bills of Quantities used for remeasurement purposees and will be used at the description of the Project manager and deducted in whole or in part if not required.				
	<u>PURCHASING OF LOOSE FURNITURS (CHAIRS, CABINETS AND COUCHES)</u>				
153	Allow the amount of N\$150,000.00 (one hundred and fifty thousand namibia Dollars) for the purchase of loose furniturs as per Project Manager's instruction.	Item	1	150,000.00	
	END OF BILL				
	Carried to Summary of Section No. 2				-

SECTION 2 SUMMARY: BUILDER'S WORK

BILL NO.

Page No.

1	DEMOLITIONS AND ALTERATIONS (PROVISIONAL)	N\$	-
2	EARTHWORKS	N\$	-
3	CONCRETE, FORMWORK AND REINFORCEMENT	N\$	-
4	MASONRY	N\$	-
5	WATERPROOFING	N\$	-
6	ROOF CONSTRUCTION, ROOF COVERINGS, PRE-FABRICATED WALLS ET	N\$	-
7	CARPENTRY AND JOINERY WORK	N\$	-
8	CEILINGS AND PARTITIONS AND ACCESS FLOORING	N\$	-
9	IRONMONGERY	N\$	-
10	STRUCTURAL STEELWORK	N\$	-
11	METALWORK	N\$	-
12	PLASTERING	N\$	-
13	TILLING	N\$	-
14	PLUMBING AND DRAINAGE (PROVISIONAL)	N\$	-
15	GLAZING	N\$	-
16	PAINTWORK	N\$	-
17	EXTERNAL WORKS	N\$	-
18	BUDGETARY ALLOWANCE	N\$	-

Carried to Final Summary

-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<p><u>SECTION NO. 3</u></p> <p><u>BILL NO. 1</u></p> <p><u>ELECTRICAL & ELECTRONICAL WORK INSTALLATIONS</u></p> <p>Attention is directed to the relevant sections of the Model Preambles to Trades which forms a part of this Bill and must be read in conjunction herewith.</p> <p>The completed Schedule of Quantities shall detail the unit rate and total amount for material and labour respectively for each item as applicable. Firms are advised to check their item extensions and total additions since no claim for mathematical errors will be considered.</p> <p>Material Rate shall include the supply of all items of material to the site including all incidentals necessary for the completion of each item, plus the profit thereon. VAT shall be indicated separately in the Price Summary.</p> <p>Labour Rate shall include the cost of all labour, both skilled and unskilled, plus supervision and profit, required to complete the installation of all material covered by each item.</p> <p>VAT will be indicated separately in the Price Summary.</p> <p>The quantities of the Schedules are to be provided by the tenderer and shall without revision to the scope of work required, be considered fixed and final.</p> <p>Only major items have been scheduled but the work shall be provided complete and all times necessary for completion of the service in its entirety shall be allowed for and provided by the Contractor, whether specified in detail or not, and no extra price will be considered for the provision thereof, unless detailed by the Contractor in a covering letter submitted with his offer.</p> <p>Where alternative prices for equipment of different manufacture are quoted, the lowest alternative price for equipment to specification must be included, against the relevant items in the Schedule of Quantities. The remaining alternative prices must be furnished separately.</p> <p>All items in the Schedule of Quantities are deemed to include supply, installation and connection where appropriate, unless stated to the contrary. The rate for each item listed must include for off-cuts, wastage and everything necessary for the completion of that item.</p>				

<u>PRELIMINARIES AND GENERALS</u>				
<u>Tenderers shall allow for the following items whatever cost they may consider necessary for carrying out and observance of the item :</u>				
<u>CONTRACT-RELATED</u>				
1	Site establishment	Item	1	-
2	Site supervision	Item	1	-
<u>TRANSPORT</u>				
3	Loading, transport to site and offloading of all equipment and material	Item	1	-
<u>ADDITIONAL ITEMS</u>				
<u>Items omitted above, required for a safe and functional installation. Please specify</u>				
4	a	Item	1	-
	b	Item	1	-
	c	Item	1	-
	d	Item	1	-
	f	Item	1	-
Carried to Summary of Section No. 3				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 3</u>				
	<u>BILL NO. 2</u>				
	<u>ELECTRICAL & ELECTRONICAL WORK INSTALLATION</u>				
	<u>SITE RETICULATION</u>				
	<u>Site reticulation works shall comply with SANS 10142</u>				
	<u>Supply and install the following armoured PVC sheathed copper LT cables. Rates to include for supply, delivery and installation in trenches, sleeves and cable trays but excluding trenching, termination, joints and cable supports for PVC / SWA/PVC/PVC, copper, 600/1000V cables :</u>				
5	4 mm x 2 core SWA/PVC copper cables	m	20		-
	<u>CABLE TERMINATIONS</u>				
	<u>Supply and install armoured PVC copper LT cable terminations including armour glands, shrouds, lugs and connections :</u>				
6	4 mm ² x 2 Core cables	No	1		-
7	2.5 mm ² x 2 BCEW cables	No	1		-
8	Termination of supply cable to distribution board	Item	1		-
	<u>BARE COPPER EARTH WIRE</u>				
	<u>Copper wire :</u>				
9	6 mm ² Cu	m	12		-
	<u>MDB EQUIPMENT</u>				
	<u>Feeder :</u>				
10	Feeder MCCB, 40 A, SP, 10 KA, type MG C32H	No	1		-
	<u>TRENCHING</u>				
	<u>Trenching pickable complete with backfill and compaction to SABS 1200, with warning tape :</u>				
11	Trench, 700mm deep, for 1 000 V PVC SWAPVC cables	m	20		-
	<u>SLEEVES</u>				
	<u>Plastic sleeves for pipes not exceeding 100mm diameter :</u>				
12	Sleeves	m	20		-
	<u>EARTHING AND LIGHTNING PROTECTION</u>				

<u>Earthing :</u>				
13	2.5 mm BCEW Earth conductors for 42.5 mm* cable (Stranded Bare Copper Earth Continuity Conductors installed with cables)	m	20	-
14	Earth bond all basins, cold and hot water pipes, as per SABS standards	No	8	-
15	Earthing of Distribution Boards with an Earth Mat, 1 x 1m grid with 200mm intervals, 35 sq. mm BCEW to be used, all joints to be cold-welded, buried 650mm below ground level, complete with connection to DBs via main entry sleeve	No	2	-
<u>Lightning protection :</u>				
16	Earth test point link box, including disconnecter link and connections to BCEW	No	2	-
17	6 mm ² BCEW from test point link to metallic roof structure, installed in 25 mm dia PVC conduit, including roof / steel connection	No	2	-
18	1,5 m earthing rod with 6 mm ² BCEW from roof in conduit in building wall to rod	No	2	-
<u>BUILDING POWER</u>				
<u>Distribution Board :</u>				
19	Sub-distribution board, flush mount, with 20% spare capacity complete with	No	2	-
20	Isolator, SP, 40 A, 10kA, main switch, type Merlin Gerin	No	2	-
21	Surge arresters, 20 KA, 1 phase + neutral, connected to bus-neutral and earth bars	Set	2	-
22	Earth leakage protection unit, 32 A, without overcurrent protection, SP & N	No	2	-
23	SPMCB, 20 A, 5 kA, type Merlin Gerin C45	No	6	-
24	SPMCB, 20 A, 5 kA, type Merlin Gerin C45	No	6	-
25	SPMCB, 16 A, 5 KA, type Merlin Gerin C45	No	4	-
26	Power cable entry sleeve, 32 mm diameter and draw-wire	No	6	-
27	Power cable crossroad sleeve, 50 mm diameter and draw-wire	m	20	-
<u>POWER OUTLETS</u>				
<u>15 Amp socket outlet point, complete, including PVC conduit installed in walls or in concrete slab and BMS conduit in ceiling space, with wall and draw boxes, wiring and switched socket and cover plate :</u>				
28	Single 15 A socket outlets	No	20	-
29	Double 15 A socket outlet	No	15	-

<u>BUILDING LIGHTING</u>				
<u>Fittings</u>				
30	"Lascon" or other approved H-profile R recessed 154 ELB flourecent light fitting with No. 2, 1 229.5mm lamps	No	36	-
31	"Type B" Surface ceiling mounted decorative, waterproof light fitting with 18 W CFL lamp	No	18	-
32	"Type C" Surface wall mounted weather proof, bulkhead light fitting with 18 W CFL lamp	No	28	-
33	Light switches complete with cover plate, conduit & wiring, single lever, 1 way	No	10	-
34	Light switches complete with cover plate, conduit & wiring, double lever, 2 way	No	18	-
Carried to Summary of Section No. 3				-

SECTION 3 SUMMARY: ELECTRICAL & ELECTRONICAL WORK

BILL NO.

Page No.

1	PRELIMINARIES AND GENERALS	N\$	-
2	ELECTRICAL & ELECTRONICAL WORK INSTALLATION	N\$	-
	Sub-total		-

Carried to Final Summary

-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>SECTION NO. 4</u>				
	<u>BILL NO. 1</u>				
	<u>MECHANICAL WORKS INSTALLATION</u>				
	<u>NOTES:</u>				
	All other materials required for the installation of the above Ventilation to ensure fully functional system as per Specification.				
	Operating and maintenance manuals, complete, bound with index and information as per specification and As-build drawings layout.				
	<u>PRELIMINARIES AND GENERALS</u>				
	<u>ADDITIONAL ITEMS</u>				
	<u>Items omitted above, required for a safe and functional installation. Please specify</u>				
1	a	Item	1		-
	b	Item	1		-
	c	Item	1		-
	d	Item	1		-
	f	Item	1		-
	Carried to Summary of Section No. 4				-

NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
<u>SECTION NO. 4</u>					
<u>BILL NO. 2</u>					
<u>MECHANICAL WORKS INSTALLATION</u>					
<u>AIRCONDITIONING</u>					
<u>"Samsung" or other approved split units including all control cabling, metal stand, drainage, etc. all in accordance with manufacturer's specification:</u>					
2	"9000 BTU" or other approved split unit	No	1		-
3	"12000 BTU" or other approved split unit	No	5		-
4	"18000 BTU" or other approved split unit	No	4		-
<u>FIRE SPRINKLER SYSTEM INSTALLATION</u>					
<u>Fire sprinkler system including all control cabling and any other items needed to ensure perfect operation as per the manufacturer's specification:</u>					
5	Fire sprinkler system complete	Item	1		-
Carried to Summary of Section No. 3					-

SECTION 4 SUMMARY: MECHANICAL WORKS

BILL NO.

Page No.

1	PRELIMINARIES AND GENERALS	N\$	-
2	MECHANICAL WORKS INSTALLATION	N\$	-
	Sub-total		-

Carried to Final Summary

-

FINAL SUMMARY		Page No.	
BILL NO.			
1	PRELIMINARIES	N\$	-
2	BUILDER'S WORK	N\$	-
3	ELECTRICAL & ELECTRONICAL WORK	N\$	-
4	MECHANICAL WORKS	N\$	-
	Sub-total		-
	<u>Construction Contingencies</u>		
	Allow a sum of N\$ 200,000.00 (two hundred thousand namibia dollar) for construction contingencies to be used as directed by the Project Manager and to be deducted in part or whole if not required	Item	
		N\$	200,000.00
	Nett Amount	N\$	
	Add: Value Added Tax (VAT) at 15%	N\$	-
	Carried to Tender Form	N\$	-