

Item No		Quantity	Rate	Amount
	<u>SECTION No. 1</u>			
	<u>BILL No. 1 : PRELIMINARIES</u>			
	1. The Principal Building Agreement shall be the JBCC Series Edition 4.1, March 2005 as recommended by the Joint Building Contract Committee and as amended by this Tender Enquiry.			
	2. The Preliminaries shall be JBCC Series 2000, May 2005 for use with the Principal Building Agreement as recommended by the Joint Building Contracts Committee and as amended by this Tender Enquiry shall be deemed to be incorporated herein.			
	3. Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof. These clauses are hereinafter referred to by clause number and heading only.			
	4. Where standard clauses or alternatives are not entirely applicable to this contract, such modifications, corrections or additions as are necessary, are given as far as possible under each relevant clause heading. Additional Preliminary clauses are contained in Section C hereof.			
	5. No claim whatsoever shall be entertained in respect of errors or omissions in pricing due to brevity of descriptions of items which are fully described when read in conjunction with the relevant clauses of the said Principal Building Agreement, Preliminaries and Preambles.			
	6. The Tenderers shall allow opposite each of the clauses whatever costs and charges he may consider necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out herein. Only priced items will be considered in respect of any adjustment of this Section. Any items left unpriced will be understood to be provided free of charge and no claim for any extras arising out of the Tenderer's omission to price any item will be entertained.			
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	7. Where modifications or amendments as described are made, such modifications and/or amendments shall supercede any conflicting provisions in the relevant clauses of the Standard Preliminaries or the Principal Building Agreement and the Tenderer shall make due allowance for whatever costs and charges he may consider necessary for the carrying out and observance of the provisions of the clauses as modified and/or amended. 8. Where any item is not relevant to this specific contract, such item is marked N/A. 9. 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 by insertion of "F","V","T" as the case may be against the price in the "rate" column immediately preceding the "amount" column, 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 proportionate to time. <u>SECTION A: PRINCIPAL BUILDING AGREEMENT</u> <u>DEFINITIONS</u> Definitions and interpretation (Clause 1). 1 F: V: T: <u>OBJECTIVE AND PREPARATION</u> Offer, acceptance and performance (Clause 2). 2 F: V: T: Documents (Clause 3). Clause 3.1 is deleted and substituted with: 'This tender is for a Government Contract. No Payment Guarantee will be provided.' Clause 3.3 is deleted and substituted with: Carried to Collection Section No. 1 Preliminaries Bill No. 1 Preliminaries	Item		
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	The principal agent shall complete the schedule and arrange for formal signing of the agreement once the priced bill of quantities/lump sum document, security, insurances and waiver of lien, where acceptable, have been provided and effected'.			
3	F: V: T: Design responsibility (Clause 4).	Item		
4	F: V: T: Employer's agents (Clause 5).	Item		
5	F: V: T: Site representative (Clause 6).	Item		
6	F: V: T: Compliance with regulations (Clause 7).	Item		
7	F: V: T: Works risk (Clause 8)	Item		
8	F: V: T: Indemnities (Clause 9). Clause 9.1.1 is deleted and substituted with: Claims from other parties consequent upon death of bodily injury or illness of any person or physical loss or damage to any property, other than the works, arising out or due to the execution of the works or occupation of the site by the contractor or his sub contractors'.	Item		
9	F: V: T: Works insurances (Clause 10).	Item		
10	F: V: T:	Item		
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Item No		Quantity	Rate	Amount
	Nominated subcontractors (Clause 20).			
20	F: V: T:	Item		
	Selected subcontractors (Clause 21).			
21	F: V: T:	Item		
	Employer's Direct contractors (Clause 22).			
22	F: V: T:	Item		
	Contractor's Domestic subcontractors (Clause 23).			
23	F: V: T:	Item		
	<u>COMPLETION</u>			
	Practical completion (Clause 24).			
24	F: V: T:	Item		
	Works completion (Clause 25).			
25	F: V: T:	Item		
	Final completion (Clause 26).			
	Latent defects liability period (Clause 27).			
	Clause 27.0 is amended by the addition of the following clauses:			
	"27.3 Any water leakage into the building, whether in the roof, external wall or other element of the building susceptible to water leakage shall, unless proven to be a design defect, or as a result of obvious storm damage, be classified as a latent defect in terms of clause 1.0 Definitions and Interpretations".			
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Item No		Quantity	Rate	Amount
	"27.4 The Contractor shall attend to defects during the Defects Liability Period on a progressive basis, to the satisfaction of the Principal Agent and will not be permitted to wait until the end of the Defect Liability Period or until the amount of defects accumulates in order to attend to a comprehensive list of defects"			
26	F: V: T: Sectional completion (Clause 28).	Item		
27	F: V: T: Revision of date for practical completion (Clause 29).	Item		
28	F: V: T: Penalty for non-completion (Clause 30).	Item		
29	F: V: T: <u>PAYMENT</u> Interim payment to the contractor (Clause 31). The inclusion of materials and goods stored off site in the amount authorised for payment in terms of clause 31.3 shall be at the sole discretion of the principal agent and such inclusion shall only be considered upon the provision, by the contractor, of an approved guarantee issued by a registered commercial bank and clause 31.6.5 is therefore not applicable. Where prices are submitted by the contractor or nominated/selected sub contractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of the contract and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the final certificate, it will be in writing. Clause 31.9 is amended as follows:	Item		
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Item No		Quantity	Rate	Amount
	Payment shall be subject to the Employer giving the Contractor a Tax Invoice for the amount due. The Employer undertakes to ensure compliance with the administrative requirements of Sections 20 (2) and 21 (4) of the Value Added Tax Act (Act 89 of 1991). The Contractor agrees to the adoption of the self invoicing procedures and undertakes not to issue any tax invoices, debit or credit notes in respect of any transaction included in the Tax Invoices issued by the Employer. The above clauses shall constitute a written agreement between the parties as required in terms of the Value Added Tax Act (Act 89 of 1991).'			
30	F: V: T: Adjustment to the contract value (Clause 32).	Item		
31	F: V: T: Recovery of expense and loss (Clause 33).	Item		
32	F: V: T: Final account and final payment (Clause 34).	Item		
33	F: V: T: Payment to other parties (Clause 35).	Item		
34	F: V: T: <u>CANCELLATION</u> Cancellation by Employer - Contractor's default (Clause 36).			
35	F: V: T: Cancellation by Employer - Loss and damage (Clause 37).	Item		
36	F: V: T:	Item		
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Item No	Quantity	Rate	Amount
Postal Address: 67 Devereux Avenue, Vincent, East London Telephone: 043 726 2255 Facsimile: 043 726 5967 Physical address: 67 Devereux Avenue, Vincent, East London <u>CONTRACT DETAILS (Clause 42.2)</u> Clause 42.2.1 Works Description: Installation of water facilities. Clause 42.2.2 Site Description: The site is the existing Hukuwa Primary School. Clause 42.2.3 Work or Installations by Others: NIL Clause 42.2.4 This Agreement is for a State Contract :- Yes Payment will be made for materials and goods:- Yes Dispute resolution :- Mediation (in terms of clause 40) followed by litigation. Arbitration rules as recommended by the Association of Arbitrators (SA) :- N/A Clause 42.2.5 Date on which possession of the site is intended to be given on :- 5 working days from the date of the letter of appointment to the Contractor.			
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Item No		Quantity	Rate	Amount
	Clause 42.2.6 Period for the commencement of the works after the contractor takes possession of the site :- 2 Working days. Completion in Sections are required : NO Clause 42.2.7 Intended date of practical completion and the penalty per calendar day for the works as a whole :- To be advised. Penalty amount to be advised. Clause 42.2.8 Intended dates of practical completion and the penalties per calendar day for the works in sections : N/A Clause 42.2.9 The law applicable to this agreement shall be that of - South Africa. <u>INSURANCES (Clause 42.3)</u> Clause 42.3.1 Contract works insurance to be effected by Contractor for the sum of: Contract Sum plus 20% With a deductible of : to be determined by the Contractor but not greater than the maximum of R50,000.00 as stipulated by the Municipality. Clause 42.3.2 Supplementary insurance is required : Yes			
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Item No	Quantity	Rate	Amount
SASRIA insurance required to be effected by the Contractor for the amount of: Contract Sum plus 20% (with a deductible to be determined by the Insurance company issueing the policy).			
Clause 42.3.3			
Public liability insurance to be effected by Contractor			
For the amount of: R 10 million			
With a deductible of: R 2,500.00			
<u>DOCUMENTS (Clause 42.4)</u>			
Clause 42.4.1			
Waiver of the contractor's lien is required :- YES			
Clause 42.4.2			
Number of construction document copies to be supplied to the Contractor free of charge :- 3			
Clause 42.4.3			
Bills of Quantities drawn up in accordance with :-			
Standard System of Measuring Building Work - Seventh Edition including all amendments			
Clause 42.4.4			
Number of days for submission of priced documents : 5 working days from the Letter of Appointment.			
Clause 42.4.5			
JBCC Engineering General Conditions are to be included in the documents :- No			
Clause 42.4.6			
The contract value is to be adjusted using CPAP:- NO			
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Item No		Quantity	Rate	Amount
<u>SECTION B: PRELIMINARIES</u>				
<u>DEFINITIONS AND INTERPRETATION (B1)</u>				
	Definitions and Interpretation (B1)			
42	F: V: T:	Item		
<u>DOCUMENTS (B2)</u>				
	Checking of documents (B2.1)			
	Notwithstanding the issue of the tender drawings, it will remain the responsibility of the Tenderer to study all available drawings at the offices of the Principal Agent during normal working hours in order to acquaint himself with all the cost implications of the design, programming, phasing, etc.			
43	F: V: T:	Item		
	Provisional Bills of Quantities (B2.2) N/A			
	Prime Cost Amounts, Budgetary Allowances, Provisional Amounts, etc., contained herein may be omitted or reduced at the Principal Agent's sole discretion and the Contractor shall not be entitled to claim for any loss by way of reduction or omission of any discount, or percentage relating to Prime Cost Amounts, Budgetary Allowances, Provisional Amounts, etc., or loss of profit related thereto.			
44	F: V: T:	Item		
	Availability of construction documentation (B2.3)			
45	F: V: T:	Item		
	Interests of Agents (B2.4)			
46	F: V: T:	Item		
	Priced documents (B2.5)			
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Item No		Quantity	Rate	Amount
47	F: V: T: Tender submission (B2.6) Notwithstanding anything contained in this clause, Tenders shall be valid for a period of 90 (Ninety) calendar days from the closing date of tenders.	Item		
48	F: V: T: <u>THE SITE (B3)</u> Defined works area (B3.1) The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent on handing over of the site. Workmen employed on the site are to be restricted to the immediate area of the site and access thereto. The Tenderer shall make all necessary provision in all rates to take into account these requirements as no claims for extras arising from these matters will be subsequently entertained or admitted.	Item		
49	F: V: T: Geotechnical investigation (B3.2) A desktop geotechnical report is available upon request.	Item		
50	F: V: T: Inspection of the Site (B3.3)	Item		
51	F: V: T: Existing premises occupied (B3.4)	Item		
52	F: V: T: Previous work - dimensional accuracy (B3.5)	Item		
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Item No		Quantity	Rate	Amount
53	F: V: T: Previous work - defects (B3.6)	Item		
54	F: V: T: Services - known (B3.7)	Item		
55	F: V: T: Services - unknown (B3.8)	Item		
56	F: V: T: Protection of trees (B3.9)	Item		
57	F: V: T: Articles of value (B3.10)	Item		
58	F: V: T: Inspection of adjoining properties (B3.11)	Item		
59	F: V: T: <u>MANAGEMENT OF CONTRACT (B4)</u> Management of the Works (B4.1)			
60	F: V: T: Programme for the Works (B4.2)	Item		
61	F: V: T: Progress meetings (B4.3)	Item		
62	F: V: T: Technical meetings (B4.4)	Item		
63	F: V: T: Carried to Collection	Item		
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Item No		Quantity	Rate	Amount
<u>SAMPLES AND SHOP DRAWINGS (B5)</u>				
	Samples of materials (B5.1)			
64	F: V: T:	Item		
	Workmanship samples (B5.2)			
65	F: V: T:	Item		
	Shop drawings (B5.3)			
66	F: V: T:	Item		
<u>TEMPORARY WORKS AND PLANT (B6)</u>				
	Deposits and fees (B6.1)			
67	F: V: T:	Item		
	Enclosure of the works (B6.2)			
	The contractor shall erect, maintain and remove at completion, hoardings, safety screens, barriers, access gates, covered gangways and the like as necessary for the enclosure of the works and elements thereof all for the protection of the public and others.			
68	F: V: T:	Item		
	Advertising (B6.3)			
69	F: V: T:	Item		
	Plant, equipment, sheds and offices (B6.4)			
70	F: V: T:	Item		
	Main notice board (B6.5)			
	One notice board shall be provided by the Contractor			
71	F: V: T:	Item		
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Item No		Quantity	Rate	Amount
	Subcontractors notice board (B6.6) (N/A)			
72	F: V: T:	Item		
	<u>TEMPORARY SERVICES (B7)</u>			
	Location (B7.1)			
73	F: V: T:	Item		
	Water (B7.2)			
	The contractor shall provide water for the works in accordance with:			
	Alternative A (i.e. to be provided for by the Contractor).			
74	F: V: T:	Item		
	Electricity (B7.3)			
	The contractor shall provide electricity for the works in accordance with:			
	Alternative A (i.e. to be provided for by the Contractor).			
75	F: V: T:	Item		
	Telecommunication equipment (B7.4)			
	The contractor shall provide telephones on site for the works in accordance with:			
	Alternative A (i.e. to be provided for by the Contractor).			
76	F: V: T:	Item		
	Ablution facilities (B7.5)			
	The contractor shall provide toilet facilities on site for the works in accordance with:			
	Alternative A (i.e. to be provided for by the Contractor).			
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77	F: V: T:	Item		
	<u>PRIME COST AMOUNTS (B8)</u>			
	Responsibility for prime cost amounts (B8.1)			
78	F: V: T:	Item		
	<u>ATTENDANCE ON N/S SUBCONTRACTORS (B9)</u>			
	General Attendance (B9.1)			
79	F: V: T:	Item		
	Special Attendance (B9.2)			
80	F: V: T:	Item		
	Commissioning - fuel, water and power (B9.3)			
81	F: V: T:	Item		
	<u>FINANCIAL ASPECTS (B10)</u>			
	Statutory taxes, duties and levies (B10.1)			
	Provision is made in the Final Summary of these Bills of Quantities for the inclusion of Value Added Tax (VAT).			
82	F: V: T:	Item		
	Payment of Preliminaries (B10.2)			
83	F: V: T:	Item		
	Adjustment of Preliminaries (B10.3)			
84	F: V: T:	Item		
	Payment certificate cash flow (B10.4)			
85	F: V: T:	Item		
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Item No		Quantity	Rate		Amount
	Contractor information supply (B10.5)				
86	F: V: T:	Item			
	<u>GENERAL (B11)</u>				
	Protection of the Works (B11.1)				
87	F: V: T:	Item			
	Protection/isolation of existing/sectionally occupied works (B11.2)				
88	F: V: T:	Item			
	Site security (B11.3)				
89	F: V: T:	Item			
	Notice before covering work (B11.4)				
90	F: V: T:	Item			
	Disturbance (B11.5)				
91	F: V: T:	Item			
	Works cleaning and clearing (B11.6)				
92	F: V: T:	Item			
	Vermin (B11.7)				
93	F: V: T:	Item			
	Overhand work (B11.8)				
94	F: V: T:	Item			
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	<u>SECTION C: SPECIFIC PRELIMINARIES</u>			
	<u>Section C: Specific Preliminaries:</u>			
	C1. 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.			
95	F: V: T:	Item		
	C2. Trade Names, etc.			
	All materials, fittings, finishings, etc., specified hereinafter under a trade name, catalogue number or reference, must be exactly as described. The Architect's approval in writing must be obtained for the use of any alternative to the specification before the submission of tenders otherwise the specified materials, fittings, finishings, etc., will be assumed to have been allowed for in the tender.			
	The Contractor must 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.			
96	F: V: T:	Item		
	C3. Contractors responsibility			
	The Employer, the Principal Agent and the other professional consultants shall not be responsible for any act or omission on the part of the Contractor which may result in any patent or latent defects, in materials or workmanship, breach or neglect of any local regulations. The Contractor shall at all times be responsible for any such neglect, deviation or wrong act, whether the same is discovered before or after the final certificate, or any other Certificate, has been approved.			
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Item No		Quantity	Rate	Amount
97	F: V: T: C4. Overtime Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the employer.	Item		
98	F: V: T: C5. 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. Three full sets of as-built drawings shall be submitted to the Principal Agent no later than fourteen days after practical completion.	Item		
99	F: V: T: C6. Construction 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. The Contractor shall supply and have available at the site of the works at all times, the following site books: a) Construction Instruction Book: Receiving and recording instructions in a suitable A4 size triplicate book kept on site. Instructions issued shall be recorded by the Architect or other Employer's Agents to whom the Architect has delegated authority to in the book. Only instructions issued in such book shall be recognised.	Item		
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Item No		Quantity	Rate	Amount
	b) Daily Record Book: The Contractor shall record in triplicate in a suitable A4 size triplicate book kept at the site, a daily record of work done, all site visits by the Principal Agent and other professional personnel and all events affecting the Works, such as progress, issue of plans, breakdown of machinery, etc. The labour, plant and material on site shall be recorded as well as work performed. Entries must be made by the Contractor and must be signed and forwarded to the Principal Agent for his counter-signature on a daily basis. Copies of these records shall be for the Architect, Quantity Surveyor and Contractor.			
100	F: V: T: C7. 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.	Item		
101	F: V: T: C8. 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.	Item		
102	F: V: T: C9. Encroachment During the course of the building operations, the Contractor shall be held entirely responsible for any encroachment onto any adjoining properties, buildings, etc., or servitudes and the cost of any remedial measures as required by the Principal Agent shall be borne by the Contractor.	Item		
103	F: V: T:	Item		
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Item No		Quantity	Rate	Amount
	C10. Method Statement The Tenderer shall produce, when required to do so by the Principal Agent, a Method Statement outlining the methods of construction and labour and plant resources that he proposes to use in the execution of the Works. Any approval given or observation made by the Principal Agent shall not relieve the Contractor of his sole responsibility to adopt the methods of construction and to provide the labour and plant resources necessary for the due and proper timeous execution of the Works.			
104	F: V: T: C11. Unauthorised Persons/Workmen on Premises The Contractor shall at all times strictly exclude all unauthorised persons from the Works and the site and shall set up notice boards to that effect. No workmen or labourers (except security guards) are to be allowed under any circumstances to sleep or deposit any kit on the premises. The Contractor must provide any necessary independent shelter or shed required for any labour or watchmen on site, to the approval of the Employer.	Item		
105	F: V: T: C12. Mode of Procedure Notwithstanding anything to the contrary contained herein the Principal Agent at all times reserves the right to direct the order in which the various parts of the Contract are to be executed. The Contractor shall give priority to any individual section or portion of the Works that, in the opinion of the Principal Agent, requires to be expedited.	Item		
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	Should it appear, in the Principal Agent's opinion, that work in any area is not being executed in accordance with the requirements of the Contract Programme, the Contractor shall provide additional manpower and resources and shall work additional overtime and do everything else required to bring the work back to programme to the satisfaction of the Principal Agent and to the Contractor's cost.			
106	F: V: T: C13. Location of Temporary Buildings and Temporary Services The Contractor shall provide all necessary temporary works, including temporary roads, tracks, crossings, hardstanding and services, hoardings, dust screens, tunnelling, etc., required for his own and sub-contractors use during the construction and maintenance period. There is no guarantee given or implied that Site conditions will be such that the Contractor will be able to erect such temporary works, roads, hardhats, offices, stores and temporary accommodation within the site boundaries and it shall be the Contractor's responsibility to adopt whatever measures he deems necessary in this regard and to obtain all necessary permission and pay all costs in connection therewith.	Item		
107	F: V: T: C14. Removal and Making Good of Temporary Works, etc, on Completion The Contractor shall remove (except where specifically stated otherwise) all temporary works, roads, services and the like used for this contract and shall make good to the entire satisfaction of the Principal Agent any damage resulting therefrom.	Item		
108	F: V: T: C15. Occupational Health and Safety Act	Item		
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	The Contractor shall for the duration of this contract be deemed to be the mandatory of the Council for the purposes of the Occupational Health and Safety Act, Act 85 of 1993, and he shall prior to taking occupation of the site satisfy the Council by means of written representations that he has fully complied with the relevant requirements of the said Act. Acceptance by the Council of the Contractors written representations in terms of the above shall constitute an agreement in writing to the arrangements and procedures between the parties to ensure compliance by the Contractor with the provisions of the Act referred to therein, for the purposes of Section 37(2) of the said Act. The Council shall at all times have the right to summarily suspend the performance of the Contractor hereunder pending compliance by the Contractor with any requirement, regulation and/or direction referred to. The Council shall be entitled to set-off against any amount owed by the Council to the Contractor hereunder any loss or damage suffered by it as a result of the suspension of the Contractor's performance in the circumstances envisaged above. The Tenderer shall price for all necessary items to comply with the Occupational Health and Safety.			
109	F: V: T: C16. Covid-19 Compliance Measures The Contractor is required to price for Covid 19 compliance and the pricing thereof shall be deemed to include all the mandatory requirements.	Item		
110	F: V: T:	Item		
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	<u>SECTION No. 2</u>			
	<u>BILL No. 1 : ALTERATIONS</u>			
	<u>MODEL PREAMBLES</u>			
	The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Existing Furniture, Equipment, etc</u>			
	The Contractor shall not remove or damage any furniture, equipment or similar items that belong to the Department except when specifically described in the items to follow: The Contractor must give the Principal Agent sufficient notice if the removal of these items are required before any prescribed alterations can be done			
	<u>Damage to existing finishes</u>			
	The Contractor will be held responsible for all damage however caused to existing finishes and fittings, etc. and he must make good all damage at his own expense to the approval of the Principal Agent.			
	Breaking down, demolition and alteration activities and tasks, hacking off of existing plaster, etc. is to be executed with care so as to prevent damage to remaining floor and wall surfaces and finishes (where these are to be retained). Tenders will be deemed to include allowance for any necessary protection of existing surfaces and structures as may be necessary to effect the above, as the cost of repairing damage to existing surfaces and structures will be solely for the Contractors account			
	Carried to Collection		R	
	Section No. 2 Alterations (Provisional) Bill No. 1 Alterations			

Item No	Quantity	Rate	Amount
<u>Responsibility for site</u>			
The Contractor is to note that upon possession of the site by himself, and extending until practical completion is achieved, he is solely responsible for the site, site security, general upkeep and cleaning of the site and all other responsibilities in maintaining a construction site in conformance with but not limited to, the Construction Regulations 2014, all local by-laws, all user client regulations, and all Client regulations and procedures. Tenderers are therefore urged to study all available material and to investigate the site fully and areas contiguous to the site, in order to determine the range and extent of responsibility. No additional monetary and/or time claims will be entertained in respect of the above			
<u>Explosives</u>			
No explosives whatsoever may be used for demolition purposes unless otherwise stated			
<u>General</u>			
The Contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum amount of disturbance to adjoining classroom blocks and their students. He shall provide proper protection of the works and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the Principal Agent			
Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the Principal Agent			
<u>Taking down and removing roof fixings.</u>			
1	Fascia boards and fixings	m	160
2	Barge boards and fixings	m	30
Carried to Collection			R
Section No. 2 Alterations (Provisional) Bill No. 1 Alterations			

Item No		Quantity	Rate	Amount
3	Rainwater gutters and fixings	m	160	
4	Rainwater downpipes and fixings	m	30	
	<u>uPVC Gutter and Downpipes:</u>			
5	125mm uPVC Half round eaves gutters on gutter brackets at 1000mm centres maximum fixed to fascia board.	m	160	
6	Extra over gutter for stop end.	No	12	
7	75mm Rainwater downpipes fixed to wall with and including proprietary holderbats.	m	30	
8	Extra over rainwater downpipe for bend.	No	12	
	<u>Pressed fibre-cement:</u>			
9	125mm Fascia board drilled and brass screwed to rafter feet including galvanised steel H-profile jointing strips etc.	m	160	
10	125 x 80mm Barge board drilled and brass screwed to timber rafter including galvanised steel H-profile jointing strips etc.	m	30	
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	<u>Repair of Existing Roof Coverings</u>			
11	Carefully examine existing corrugated roof covering with ridding, inspect and rectify all irregularly sized timber purlins and re-install corrugated roof coverings, replace all defective and loose drive screws with longer driven screws, washer and cupped washer, seal small holes with flashing membrane system and leave watertight (measured flat).	Item		
	Carried to Collection		R	
	Section No. 2 Alterations (Provisional) Bill No. 1 Alterations			

Section No. 2

Alterations (Provisional)

Bill No. 1

Alterations

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Alterations (Provisional)

Bill No. 1

Alterations

Item No	Quantity	Rate	Amount
<u>SECTION No. 3</u> <u>BILL NO.1</u> <u>WATER TANKS AND RAINWATER HARVESTING</u> <u>EARTHWORKS (PROVISIONAL)</u> Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect. <u>Nature of ground:</u> The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with hard or soft rock. <u>Carting away of excavated material:</u> 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. <u>Dewatering of Excavations</u> The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise. Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water.			
Carried to Collection			R
Section No. 3 External Works (Provisional) Bill No. 1 Rain Water Tanks			

Item No		Quantity	Rate	Amount
	<u>Density testing on filling</u>			
	Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.			
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level:</u>			
1	Trenches, Holes	m3	6	
	<u>Risk of collapse of excavations other than bulk:</u>			
2	Risk of collapse to sides of excavations to holes, trenches, etc. from ground level to not exceeding 1,5m deep.	m2	23	
	<u>CARTING AWAY.</u>			
3	Extra over all excavations for carting away surplus excavated material and spreading, levelling and lightly compacting on site where directed not exceeding 100m from the excavations.(measured nett - no allowance made for bulking)	m3	5	
	<u>EARTH FILLING, ETC.</u>			
	<u>Filling with material from the excavations compacted to a density of at least 95% Mod. AASHTO maximum density:</u>			
4	Backfilling to trenches, holes, etc.	m3	2	
	<u>Filling with approved natural gravel material (G5) supplied and carted onto site by the Contractor and compacted to 95% Mod AASHTO density:</u>			
5	Under trenches, holes, surface beds, etc.	m3	4	
Carried to Collection				R
Section No. 3				
External Works (Provisional)				
Bill No. 1				
Rain Water Tanks				

Item No	Quantity	Rate	Amount
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Cost of tests:</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. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).			
<u>Formwork:</u>			
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. 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.			
Carried to Collection			R
Section No. 3 External Works (Provisional) Bill No. 1 Rain Water Tanks			

Item No		Quantity	Rate	Amount
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>25Mpa/19mm Concrete</u>			
6	Strip footings.	m3	3	
	<u>REINFORCED CONCRETE</u>			
	<u>25 MPa/19mm Concrete:</u>			
7	Suspended Slab	m3	2	
	<u>TEST BLOCKS</u>			
	<u>Test blocks:</u>			
8	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	4	
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>			
	<u>Smooth Formwork to Sides:</u>			
9	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	28	
	<u>BRICKWORK IN FOUNDATIONS (PROVISIONAL)</u>			
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>			
10	One brick walls.	m2	6	
	<u>BRICKWORK IN SUPERSTRUCTURE</u>			
	<u>Brickwork of NFP bricks (14 MPa nominal compressive strength) in Class II mortar:</u>			
11	One brick walls.	m2	13	
	Carried to Collection			
	Section No. 3			
	External Works (Provisional)			
	Bill No. 1			
	Rain Water Tanks			

Item No		Quantity	Rate	Amount
	<u>BRICKWORK AND BLOCKWORK SUNDRIES</u>			
	<u>Galvanized brickwork reinforcement</u>			
12	230mm Wide reinforcement built in horizontally.	m	57	
13	Ditto, but in foundations (Provisional).	m	32	
	<u>REINFORCEMENT</u>			
	<u>Fabric reinforcement:</u>			
14	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	25	
	<u>EXTERNAL PLASTER</u>			
	<u>Cement plaster on superstructure brickwork:</u>			
15	On walls.	m2	11	
	<u>PAINTWORK ETC TO NEW WORK</u>			
	<u>ON FLOATED PLASTER</u>			
	<u>Prepare surface and remove all loose material, and rinse. apply Polycell Mendall 90 flexible crack filler to holes and cracks, one coat undercoat, one coat tinted Micatex and two coats PLASCON WALL & ALL or equal Architect approved, to cover surface sufficiently. All to manufacturer's specifications. Colour and type to Architect's approval:</u>			
16	On external plastered walls.	m2	11	
	Carried to Collection		R	
	Section No. 3 External Works (Provisional) Bill No. 1 Rain Water Tanks			

Item No		Quantity	Rate	Amount
<u>RAIN WATER POLYETHYLENE TANK</u>				
17	5000 Litre polyethylene rotomoulded rainwater storage tank, including lid, fitted with and including 50 x 15mm reducer and setting in position on concrete tank stand (elsewhere measured) and tying down with 4mm diameter galvanised wire wrapped twice around centre of tank and secure to each corner of tank stand with a double strand of 4mm diameter galvanised wire embedded into concrete. (Note: tanks to be filled with water before practical completion).	No	6	
<u>CARTING OF WATER</u>				
<u>Carting of Water</u>				
18	Supply/carting of portable water to an elevated tank including once off testing of reliable source	I	30,000	
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 1 Rain Water Tanks				

Section No. 3

External Works (Provisional)

Bill No. 1

Rain Water Tanks

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External Works (Provisional)

Bill No. 1

Rain Water Tanks

Item No	Quantity	Rate	Amount
<u>BILL NO.2</u>			
<u>BUFFER TANKS</u>			
<u>EARTHWORKS (PROVISIONAL)</u>			
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect. <u>Nature of ground:</u> The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with hard or soft rock. <u>Carting away of excavated material:</u> 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. <u>Dewatering of Excavations</u> The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise. Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water. <u>Density testing on filling</u> Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.			
Carried to Collection			R
Section No. 3 External Works (Provisional) Bill No. 2 Buffer Tanks			

Item No		Quantity	Rate	Amount
	<u>SITE CLEARANCE ETC</u>			
1	Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m2	200	
2	Stripping average 300mm thick layer of topsoil and stockpiling on site.	m2	200	
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level:</u>			
3	Trenches, Holes	m3	288	
	<u>Extra over excavation in pickable material for column bases, trenches, lift pits, sumps, etc for excavation in:</u>			
4	Soft rock.	m3	29	
5	Hard rock.	m3	14	
	<u>Risk of collapse of excavations other than bulk:</u>			
6	Risk of collapse to sides of excavations to holes, trenches, etc. from ground level to not exceeding 1,5m deep.	m2	96	
7	Risk of collapse to sides of excavations to holes, trenches, etc. from ground level exceeding 1,5m deep. not exceeding 3.0m deep.	m2	58	
	<u>CARTING AWAY.</u>			
8	Extra over all excavations for carting away surplus excavated material and spreading, levelling and lightly compacting on site where directed not exceeding 100m from the excavations.(measured nett - no allowance made for bulking)	m3	20	
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 2 Buffer Tanks				

Item No		Quantity	Rate	Amount
	<u>EARTH FILLING, ETC.</u>			
	<u>Filling with material from the excavations compacted to a density of at least 95% Mod. AASHTO maximum density:</u>			
9	Backfilling to trenches, holes, etc.	m3	265	
	<u>Filling with approved 5% stabilised G6 backfill soilcrete supplied and carted onto site by the Contractor and compacted to 95% Mod AASHTO density:</u>			
10	Under trenches, holes, surface beds, etc.	m3	16	
	<u>Compaction of surfaces.</u>			
11	Compaction of ground surface including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material from excavated material where necessary and compacting to 87% Mod AASHTO density.	m2	120	
	<u>Prescribed density tests on filling</u>			
12	Modified AASHTO Density test.	No	4	
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>			
	<u>Keeping excavations free of water:</u>			
13	Keeping excavations entirely free of all water or mud.	Item		
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 2 Buffer Tanks				

Item No	Quantity	Rate	Amount
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Cost of tests:</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. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).			
<u>Formwork:</u>			
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.			
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.			
Carried to Collection			R
Section No. 3 External Works (Provisional) Bill No. 2 Buffer Tanks			

Item No		Quantity	Rate	Amount
	<u>REINFORCED CONCRETE</u>			
	<u>25 MPa/19mm Concrete:</u>			
14	Base slabs.	m3	7	
15	Suspended Slabs.	m3	7	
	<u>TEST BLOCKS</u>			
	<u>Test blocks:</u>			
16	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	4	
	<u>FINISHING TOP SURFACE OF CONCRETE</u>			
	<u>Finishing top surfaces of concrete with a wood float:</u>			
17	Base slabs, etc	m2	36	
	<u>Finishing top surfaces of concrete smooth with steel float:</u>			
18	Suspended slab, etc	m2	36	
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
	<u>Rough Formwork to Sides:</u>			
19	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	27	
	<u>Smooth Formwork to Sides:</u>			
20	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	27	
	<u>Fabric reinforcement:</u>			
21	REF. 395 fabric reinforcement in concrete surface beds, slabs, footings, etc.	m2	144	
	Carried to Collection			
	Section No. 3			
	External Works (Provisional)			
	Bill No. 2			
	Buffer Tanks			

Item No		Quantity	Rate	Amount
	<u>STORMWATER CHANNELS</u>			
	<u>In-situ concrete channels:</u>			
22	25MPa concrete 900 x 100mm V' channel 100mm deep in centre laid in position in ground in 2000mm sections including all excavations, ramming, trimming, formwork, reinforcement, expansion joints, floating, etc.	m	34	
23	Extra 900 x 200mm for angles, intersections, ends, dressing into sides of catchpits, etc.	No	2	
	<u>UNDERGROUND STORAGE TANKS</u>			
24	6 000 L Polyethylene Collection Tank installed at 2 000mm depth, Installation complete with 50mm Brass float valve, low level override float sender unit, pipework installed in between tanks.	No	2	
	<u>MISCELLANEOUS</u>			
	<u>Supply and fit complete to manufacturer's standards the following to downpipes and tanks to prevent blocking and intrusion of mosquitoes and pests to tanks.</u>			
25	Leaf eater rain heads	No	1	
26	Screen filter	No	1	
27	First flush diverters	No	1	
	<u>Sundries:</u>			
28	Galvanized reno mattresses 2.0m X 1.0m X 0.3m deep with 60 x 80 mm mesh filled with 100 - 150mm stones.	m3	1	
	<u>CARTING OF WATER</u>			
	<u>Carting of Water</u>			
29	Supply/carting of portable water to an elevated tank including once off testing of reliable source	l	12,000	
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	Buffer Tanks			

Item No		Quantity	Rate	Amount
<u>MANHOLE COVERS</u>				
30	600 x 600mm Type 2A Heavy duty cast iron manhole cover and frame to SABS 558.	No	2	
<u>UNDERGROUND PUMP:</u>				
<u>Prepare and Install a complete set of submersible pump:</u>				
31	SVM 285/07 Wet End	No	1	
32	1,5KW Franlil 230V Motor.	No	1	
33	1,5KW Data 120 Control Box.	No	1	
34	32mm Base plate cast iron.	No	1	
35	2,5mm X 4 Core Aquavern submersible cable (meters).	m	30	
36	HDPE 32mm Class 12 piping (meters).	No	1	
37	Installation and Commission.	Item		
Carried to Collection				
Section No. 3 External Works (Provisional) Bill No. 2 Buffer Tanks				

Item No		Quantity	Rate	Amount
	<u>SECURITY FENCING</u>			
	<u>Site clearance</u>			
38	Allow for clearing site for the width of 1 000 mm where fencing is to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling.	m2	34	
	<u>Straining wires, fencing and razor wire:</u>			
39	Four strands of 4 mm galvanised straining wires secured to fencing posts with doubled 2 mm galvanised wire inserted through hole in post and turned a minimum of four turns around straining wire and attached to straining frame at one end with not less than four turns at the other end to straining bolts (elsewhere measured).	m	34	
40	3 Strands of galvanised barbed wire tied to standards, posts and eye bolts	m	34	
41	Fencing formed of 100 x 50 x 2.5mm diameter galvanised fencing 1 800mm high and fixed to each straining wire with 8 guage binding wire at 500mm centres (straining wires elsewhere measured).	m	34	
	<u>Posts for 1 800mm high security fence:</u>			
42	60 mm Diameter galvanised steel intermediate fencing post 1800mm long fitted with a pressed steel mushroom cap one end and 150 x 150 x 5 mm baseplate at bottom and embedded in and including 350 x 350 x 600 mm mass concrete (15 MPa) base.	No	12	
43	100 mm Ditto as corner post, fitted with two 50mm diameter galvanised steel stay set raking and with top end flattened and bolted through post, with post and stay both embedded in mass concrete (15 MPa) bases as last.	No	4	
44	150mm Ditto as gate post 1 800mm long, fitted with two 50mm diameter galvanised steel stay set raking and with top end flattened and bolted through post, with post and stay both embedded in mass concrete (15 MPa) bases as last.	No	1	
	Carried to Collection			
	Section No. 3			
	External Works (Provisional)			
	Bill No. 2			
	Buffer Tanks			

Item No			Quantity	Rate	Amount
45	12 mm Diameter galvanised mild steel straining eye bolt with hook, threaded portion and two nuts and washers.	No	34		
46	Form 12mm diameter hole through fence post.	No	64		
	<u>Gates:</u>				
47	Security fence single gate, size 1 000 mm wide x 1 800 mm high, formed of 50 mm diameter nominal bore x 3,25 mm wall thickness hot dip galvanised mild steel pipe framing all round with mitred and welded angles and cross braces mullion and transome, scribed and welded into angles and at cross intersections, with two 50 mm diameter nominal bore x 3,25 mm wall thickness security posts each 600 mm long with one end welded to top rail of gate and closure plate to other end, the gate covered with 100 x 50 x 2,5 mm weld mesh with four straining wires as before described and with four 2,37 mm four point core diameter single "kampeon" wires with crimped droppers to security posts as before described; including three strands flat wrap razor barbed tape wire fixed as before described, leaf fitted with three 24 mm diameter x 300 mm long eyebolt hinges and stops including all holes, etc., welded or bolted to adjoining galvanised gatepost with and including 500 mm long approved chain spot welded to gate	No	1		
	<u>PADLOCKS</u>				
48	Supply 50 mm "Viro" Padlocks and Keys (or equal approved)	No	1		
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External Works (Provisional)

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Buffer Tanks

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External Works (Provisional)

Bill No. 2

Buffer Tanks

Item No	Quantity	Rate	Amount
<u>BILL NO.3</u>			
<u>ELEVATED TANKS</u>			
<u>EARTHWORKS (PROVISIONAL)</u>			
Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Architect. <u>Nature of ground:</u> The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with hard or soft rock. <u>Carting away of excavated material:</u> 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. <u>Dewatering of Excavations</u> The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping , baling or otherwise. Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water. <u>Density testing on filling</u> Rates of filling, etc shall include for all density and soil type testing to prove that the specified compaction is achieved When additional testing is done on instruction of the Architect and these tests are successful, they will be paid for additionally.			
Carried to Collection			R
Section No. 3 External Works (Provisional) Bill No. 3 Elevated Tanks			

Item No		Quantity	Rate	Amount
	<u>SITE CLEARANCE, ETC:</u>			
1	Allow for clearing of site of all vegetable matter, rubbish, etc.including small trees having a circumference of less than 200mm measured at a height of 1 000mm above ground level, that may be encountered and roughly level site to be built upon and carting away any debris to a site to be found by the contractor.	m2	100	
2	Strip average 200mm thick layer of topsoil and stockpile on site.	m2	100	
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level:</u>			
3	Holes	m3	1	
	<u>Risk of collapse of excavations other than bulk:</u>			
4	Risk of collapse to sides of excavations to holes, trenches, etc. from ground level to not exceeding 1,5m deep.	m2	3	
	<u>CARTING AWAY.</u>			
5	Extra over all excavations for carting away surplus excavated material and spreading, levelling and lightly compacting on site where directed not exceeding 100m from the excavations.(measured nett - no allowance made for bulking)	m3	1	
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>			
	<u>Keeping excavations free of water:</u>			
6	Keeping excavations entirely free of all water or mud.	Item		
	Carried to Collection		R	
	Section No. 3 External Works (Provisional) Bill No. 3 Elevated Tanks			

Item No		Quantity	Rate	Amount
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u> <u>SUPPLEMENTARY PREAMBLES</u> <u>Cost of tests:</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. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately). <u>Formwork:</u> 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. 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. <u>REINFORCED CONCRETE</u> <u>25 MPa/19mm Concrete:</u>			
7	Bases	m3	0.3	
	Carried to Collection		R	
	Section No. 3 External Works (Provisional) Bill No. 3 Elevated Tanks			

Item No			Quantity	Rate	Amount
	<u>TEST BLOCKS</u>				
	<u>Test blocks:</u>				
8	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	1		
	<u>REINFORCEMENT</u>				
	<u>High tensile steel reinforcement to structural concrete work:</u>				
9	12mm Diameter bars.	t	0.10		
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>				
	<u>Galvanised steel Pipe</u>				
10	65mm Mild steel galvanised pipes fixed to elevated tank stand.	m	20		
	<u>Extra over for pipe fittings.</u>				
11	Bend	No	12		
	<u>ELEVATED POLYETHYLENE WATER TANK</u>				
12	Supply and Erect Galvanised Mild Steel Water Tank Stand to support 1 x 10 000 litre and 1 x 5 000 litre Polyethylene Water Tanks (elsewhere measured) at 4000mm height above natural ground level.	t	1.00		
13	Supply and Install 1 x 10 000 litre Polyethylene water tank complete with all control valves, fittings, holding down ties or straps etc and install to Elevated tank stand (elsewhere measured) at 4 000mm height from natural ground level.	No	1		
	Carried to Collection			R	
	Section No. 3				
	External Works (Provisional)				
	Bill No. 3				
	Elevated Tanks				

Item No		Quantity	Rate	Amount
	<u>MISCELLANEOUS</u>			
	<u>Supply and fit complete to manufacturer's standards the following to downpipes and tanks to prevent blocking and intrusion of mosquitoes and pests to tanks.</u>			
14	Leaf eater rain heads	No 1		
15	Screen filter	No 1		
16	First flush diverters	No 1		
	<u>SECURITY FENCING</u>			
	<u>Site clearance</u>			
17	Allow for clearing site for the width of 1 000 mm where fencing is to be erected including removing trees, shrubs etc. not exceeding 200 mm girth, grubbing up roots and roughly levelling.	m2 100		
	<u>Straining wires, fencing and razor wire:</u>			
18	Four strands of 4 mm galvanised straining wires secured to fencing posts with doubled 2 mm galvanised wire inserted through hole in post and turned a minimum of four turns around straining wire and attached to straining frame at one end with not less than four turns at the other end to straining bolts (elsewhere measured).	m 128		
19	3 Strands of galvanised barbed wire tied to standards, posts and eye bolts	m 32		
20	Fencing formed of 100 x 50 x 2.5mm diameter galvanised fencing 1 800mm high and fixed to each straining wire with 8 guage binding wire at 500mm centres (straining wires elsewhere measured).	m 32		
	Carried to Collection		R	
	Section No. 3			
	External Works (Provisional)			
	Bill No. 3			
	Elevated Tanks			

Item No		Quantity	Rate	Amount
	<u>Posts for 1 800mm high security fence:</u>			
21	60 mm Diameter galvanised steel intermediate fencing post 1800mm long fitted with a pressed steel mushroom cap one end and 150 x 150 x 5 mm baseplate at bottom and embedded in and including 350 x 350 x 600 mm mass concrete (15 MPa) base.	No	11	
22	100 mm Ditto as corner post, fitted with two 50mm diameter galvanised steel stay set raking and with top end flattened and bolted through post, with post and stay both embedded in mass concrete (15 MPa) bases as last.	No	4	
23	150mm Ditto as gate post 1 800mm long, fitted with two 50mm diameter galvanised steel stay set raking and with top end flattened and bolted through post, with post and stay both embedded in mass concrete (15 MPa) bases as last.	No	2	
24	12 mm Diameter galvanised mild steel straining eye bolt with hook, threaded portion and two nuts and washers.	No	16	
25	Form 12mm diameter hole through fence post.	No	128	
	<u>Gates:</u>			
26	Security fence single gate, size 1 000 mm wide x 1 800 mm high, formed of 50 mm diameter nominal bore x 3,25 mm wall thickness hot dip galvanised mild steel pipe framing all round with mitred and welded angles and cross braces mullion and transome, scribed and welded into angles and at cross intersections, with two 50 mm diameter nominal bore x 3,25 mm wall thickness security posts each 600 mm long with one end welded to top rail of gate and closure plate to other end, the gate covered with 100 x 50 x 2,5 mm weld mesh with four straining wires as before described and with four 2,37 mm four point core diameter single "kampeon" wires with crimped droppers to security posts as before described; including three strands flat wrap razor barbed tape wire fixed as before described, leaf fitted with three 24 mm diameter x 300 mm long eyebolt hinges and stops including all holes, etc., welded or bolted to adjoining galvanised gatepost with and including 500 mm long approved chain spot welded to gate	No	1	
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 3 Elevated Tanks				

Item No		Quantity	Rate	Amount
	<u>PADLOCKS</u>			
27	Supply 50 mm "Viro" Padlocks and Keys (or equal approved)	No	1	
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 3 Elevated Tanks				

Item No		Quantity	Rate	Amount
	<u>BILL No.4</u>			
	<u>STAND PIPES:</u>			
	<u>EARTHWORKS</u>			
	<u>SITE CLEARANCE ETC</u>			
1	Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris.	m2	9	
2	Stripping average 300mm thick layer of topsoil and stockpiling on site.	m2	9	
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level:</u>			
3	Holes.	m3	2	
	<u>CARTING AWAY.</u>			
4	Extra over all excavations for carting away surplus excavated material and spreading, levelling and lightly compacting on site where directed not exceeding 100m from the excavations.(measured nett - no allowance made for bulking)	m3	2	
	<u>EARTH FILLING, ETC.</u>			
	<u>Filling with approved natural gravel material (G5) supplied and carted onto site by the Contractor and compacted to 95% Mod AASHTO density:</u>			
5	Under trenches, holes, surface beds, etc.	m3	1	
	Carried to Collection			
			R	
	Section No. 3			
	External Works (Provisional)			
	Bill No. 4			
	Stand Pipes			

Item No		Quantity	Rate	Amount
	<u>Compaction of surfaces.</u>			
6	Compaction of ground surface including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material from excavated material where necessary and compacting to 87% Mod AASHTO density.	m2	5	
	<u>Prescribed density tests on filling</u>			
7	Modified AASHTO Density test.	No	2	
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>REINFORCED CONCRETE</u>			
	<u>25Mpa/19mm Concrete</u>			
8	1000mm V' shaped concrete slab.	m3	1	
9	In 110mm PVC Blue Water Pipe.	m3	1	
	<u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u>			
	<u>Smooth Formwork to Sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	12	
	<u>REINFORCEMENT (PROVISIONAL)</u>			
	<u>Fabric reinforcement:</u>			
11	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	5	
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 4 Stand Pipes				

Item No		Quantity	Rate	Amount
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 350 micron 'USB GREEN' waterproof sheeting sealed at laps with 'Gunplas Pressure Sensitive Tape':</u>			
12	Under surface beds.	m2	5	
	<u>PIPEWORK</u>			
	<u>Pipes, pipe fittings, etc</u>			
	<u>WATER SUPPLIES</u>			
	<u>Galvanised steel pipe.</u>			
13	20mm Diameter galvanised pipes fixed to concrete.	m	2	
	<u>Extra over for pipe fittings.</u>			
14	Bend	No	2	
	<u>uPVC Pipes</u>			
15	110mm Blue Water Pipe.	m	2	
	<u>SANITARY FITTINGS</u>			
	<u>Solid cast brass taps, valves, etc</u>			
16	Bib Tap or Similar approved.	No	4	
	<u>MISCELLANEOUS</u>			
	<u>Aqualoc Flow Restrictors/Valve</u>			
17	Supply and install Aqualoc Monobox or equal approved, with flow restrictors installations	No	2	
18	Supply Aqualoc Service set, complete with all fittings	No	2	
	Carried to Collection			R
	Section No. 3			
	External Works (Provisional)			
	Bill No. 4			
	Stand Pipes			

Item No		Quantity	Rate	Amount
	<u>Sundries:</u>			
19	Galvanized reno mattresses 2.0m X 1.0m X 0.3m deep with 60 x 80 mm mesh filled with 100 - 150mm stones.	m3 2		
	<u>Testing:</u>			
20	Testing drainage system.	Item		
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 4 Stand Pipes				

Section No. 3

External Works (Provisional)

Bill No. 4

Stand Pipes

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Section No. 3

External Works (Provisional)

Bill No. 4

Stand Pipes

Item No		Quantity	Rate	Amount
	<u>BILL No.5</u>			
	<u>RETICULATION AND FITTINGS</u>			
	<u>EARTHWORKS</u>			
	<u>Site clearance, etc.:</u>			
1	Allow for clearing of site of all vegetable matter, rubbish, etc.including small trees having a circumference of less than 200mm measured at a height of 1 000mm above ground level, that may be encountered and roughly level site to be built upon and carting away any debris to a site to be found by the contractor.	m2	311	
2	Strip average 200mm thick layer of topsoil and stockpile on site.	m2	311	
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level:</u>			
3	Pipe Trenches	m3	47	
	<u>Extra over excavation in pickable material for column bases, trenches, lift pits, sumps, etc for excavation in:</u>			
4	Soft rock.	m3	5	
5	Hard rock.	m3	2	
	<u>Risk of collapse of excavations other than bulk:</u>			
6	Risk of collapse to sides of excavations to holes, trenches, etc. from ground level to not exceeding 1,5m deep.	m2	311	
	Carried to Collection			
	Section No. 3			
	External Works (Provisional)			
	Bill No. 5			
	Reticulation and Fittings			

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Item No		Quantity	Rate	Amount
	<u>CARTING AWAY.</u>			
7	Extra over all excavations for carting away surplus excavated material and spreading, levelling and lightly compacting on site where directed not exceeding 100m from the excavations.(measured nett - no allowance made for bulking)	m3	18	
	<u>EARTH FILLING, ETC.</u>			
	<u>Filling with material from the excavations compacted to a density of at least 95% Mod. AASHTO maximum density:</u>			
8	Backfilling to trenches, holes, etc.	m3	11	
	<u>Provision of bedding from trench excavation</u>			
9	Selected compacted granular bedding cradle up to 100mm around pipe	m3	18	
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>			
	<u>Keeping excavations free of water:</u>			
10	Keeping excavations entirely free of all water or mud.	Item		
	<u>MEDIUM PRESSURE PIPELINES</u>			
	<u>HDPE Class 6 pipes</u>			
11	32mm Diameter pipe	m	68	
12	50mm Diameter pipe	m	16	
13	90mm Diameter pipe	m	227	
	<u>Extra over for pipes fittings:</u>			
14	32mm Bend.	No	3	
15	32mm Tee.	No	1	
16	50mm Bend.	No	2	
	Carried to Collection			R
	Section No. 3			
	External Works (Provisional)			
	Bill No. 5			
	Reticulation and Fittings			

Item No			Quantity	Rate	Amount
17	90mm Bend.	No	11		
18	90mm Tee.	No	5		
	<u>Supply, delivery and installation of compression type fittings for use with HDPE piping :</u>				
19	90 -40 mm Reducing Couplings	No	7		
20	50 mm Equal Tee	No	6		
21	32 mm Equal Tee	No	2		Rate Only
	<u>Supply, delivery and installation of spigot & socket type fittings complete for use with PVC piping :</u>				
22	40- 2½" Male Threaded Adapters	No	7		
23	25- 2½" Male Threaded Adapters	No	7		
24	25- 2" Male Threaded Adapters	No	7		
	<u>MISCELLANEOUS</u>				
	<u>Aqualoc Flow Restrictors/Valve</u>				
25	Supply and install Aqualoc Monobox or equal approved, with flow restrictors installations	No	6		
26	Supply Aqualoc Service set, complete with all fittings	No	6		
Carried to Collection					R
Section No. 3 External Works (Provisional) Bill No. 5 Reticulation and Fittings					

Section No. 3

External Works (Provisional)

Bill No. 5

Reticulation and Fittings

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Section No. 3

External Works (Provisional)

Bill No. 5

Reticulation and Fittings

Item No		Quantity	Rate	Amount
	<u>BILL No. 6</u>			
	<u>TOOL BOX</u>			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level:</u>			
1	Holes	m3	1	
	<u>Risk of collapse of excavations other than bulk:</u>			
2	Risk of collapse to sides of excavations to holes, trenches, etc. from ground level to not exceeding 1,5m deep.	m2	1	
	<u>CARTING AWAY.</u>			
3	Extra over all excavations for carting away surplus excavated material and spreading, levelling and lightly compacting on site where directed not exceeding 100m from the excavations.(measured nett - no allowance made for bulking)	m3	1	
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>			
	<u>Keeping excavations free of water:</u>			
4	Keeping excavations entirely free of all water or mud.	Item		
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>REINFORCED CONCRETE</u>			
	<u>25 MPa/19mm Concrete:</u>			
5	Base slabs, etc	m3	0.1	
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 6 Tool Box				

Item No		Quantity	Rate	Amount
<u>TEST BLOCKS</u>				
<u>Test blocks:</u>				
6	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	1	
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
<u>Smooth Formwork to Sides:</u>				
7	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	2	
<u>REINFORCEMENT</u>				
<u>Fabric reinforcement:</u>				
8	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	0.2	
<u>TOOL BOX:</u>				
<u>Supply and Installation of a complete set of tool box on the buffer tank and to be fully labelled.</u>				
9	Tool Box.	No	1	
Carried to Collection				
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Section No. 3 External Works (Provisional) Bill No. 6 Tool Box				

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External Works (Provisional)

Bill No. 6

Tool Box

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Section No. 3

External Works (Provisional)

Bill No. 6

Tool Box

Item No		Quantity	Rate	Amount
	<u>BILL NO. 7</u>			
	<u>WATER PURIFICATION SYSTEM:</u>			
	<u>WATER PURIFICATION (TREATMENT UNIT):</u>			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavate in pickable material not exceeding 2m deep below natural or reduced ground level:</u>			
1	Trenches, Holes	m3	1	
	<u>Risk of collapse of excavations other than bulk:</u>			
2	Risk of collapse to sides of excavations to holes, trenches, etc. from ground level to not exceeding 1,5m deep.	m2	5	
	<u>CARTING AWAY.</u>			
3	Extra over all excavations for carting away surplus excavated material and spreading, levelling and lightly compacting on site where directed not exceeding 100m from the excavations.(measured nett - no allowance made for bulking)	m3	1	
	<u>EARTH FILLING, ETC.</u>			
	<u>Filling with material from the excavations compacted to a density of at least 95% Mod. AASHTO maximum density:</u>			
4	Backfilling to trenches, holes, etc.	m3	1	
	<u>Filling with approved natural gravel material (G5) supplied and carted onto site by the Contractor and compacted to 95% Mod AASHTO density:</u>			
5	Under trenches, holes, surface beds, etc.	m3	0.2	
	Carried to Collection			
			R	
	Section No. 3			
	External Works (Provisional)			
	Bill No. 7			
	Water Purification System			

Item No		Quantity	Rate	Amount
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>			
	<u>Keeping excavations free of water:</u>			
6	Keeping excavations entirely free of all water or mud.	Item		
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>25Mpa/19mm Concrete</u>			
7	Strip footings.	m3	0.4	
	<u>REINFORCED CONCRETE</u>			
	<u>25 MPa/19mm Concrete:</u>			
8	Base slab, etc	m3	0.1	
	<u>TEST BLOCKS</u>			
	<u>Test blocks:</u>			
9	Making and testing set of three 150x150x150mm concrete strength test cubes (Provisional).	No	1	
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
	<u>Rough Formwork to Sides:</u>			
10	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	4	
Carried to Collection				R
Section No. 3 External Works (Provisional) Bill No. 7 Water Purification System				

Item No		Quantity	Rate	Amount
	<u>BRICKWORK IN FOUNDATIONS</u> <u>(PROVISIONAL)</u>			
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar:</u>			
11	One brick walls.	m2	2	
	<u>BRICKWORK IN SUPERSTRUCTURE</u>			
	<u>Brickwork of NFP bricks (14 MPa nominal compressive strength) in Class II mortar:</u>			
12	One brick walls.	m2	5	
	<u>BRICKWORK AND BLOCKWORK SUNDRIES</u>			
	<u>Galvanized brickwork reinforcement</u>			
13	230mm Wide reinforcement built in horizontally.	m	20	
14	Ditto, but in foundations (Provisional).	m	4	
	<u>REINFORCEMENT</u>			
	<u>Fabric reinforcement:</u>			
15	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m2	1	
	<u>EXTERNAL PLASTER</u>			
	<u>Cement plaster on superstructure brickwork:</u>			
16	On walls.	m2	5	
	<u>MANHOLE COVERS</u>			
17	900 x 900mm Type 2A Heavy duty cast iron manhole cover and frame to SABS 558.	No	1	
	Carried to Collection			R
	Section No. 3			
	External Works (Provisional)			
	Bill No. 7			
	Water Purification System			

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Section No. 3

External Works (Provisional)

Bill No. 7

Water Purification System

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Section No. 3

External Works (Provisional)

Bill No. 7

Water Purification System

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Item No	Quantity	Rate	Amount
<u>SECTION NO. 4</u>			
<u>BILL NO.1</u>			
<u>ELECTRICAL INSTALLATION</u>			
<u>(PROVISIONAL):</u>			
<u>MODEL PREAMBLES</u>			
The tenderer is referred to the "Model Preambles for Trades 2008" for supplementary and comprehensive expansion of descriptions, appropriate provision for which shall be deemed to have been included in all relevant rates			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>SANS Standards:</u>			
The following to be installed in strict accordance to the following SANS Standards:			
			- Electrical Installations: SANS 10142 - Lightning Protection: SANS 62305-1:2011 & IEC 62305-1:2010
<u>MISCELLANEOUS</u>			
1	Allow for the 12 months guarantee period.	Item	
2	Allow for labelling of all equipment where required	Item	
3	Allow for the submission of Asbuilt drawings	Item	
Carried to Collection			R
Section No. 4			
Electrical Installation (Provisional)			
Bill No. 1			
Electrical Installation			

Item No		Quantity	Rate	Amount
	<u>LV RETICULATION</u>			
	<u>COPPER CABLES</u>			
	<u>Supply and installation of 1000/600 volts PVC/SWA/PVC ECC copper cables as specified, excluding terminations and cable supports. Lengths ginen shall be taken as measured lengths to cable run from terminal to terminal and rates quoted shall include for off-cuts and wastage. Note should cables without ECC be utilized the tenderer will supply the additional external earth at no additional cost.</u>			
	16mm ² 4C PVC/SWA/PVC ECC Cable.			
4	Supply	m	85.00	
5	Install	m	85.00	
	<u>CABLE TERMINATION</u>			
	<u>For PVC/SWA/PVC shall include supply anf fitting of the cable gland, neoprene shroud, making-off cables, lugs, and fitting the gland to the board gland plate, switchgear and final connection of cable tails into board or terminal.</u>			
	16mm ² 4C PVC/SWA/PVC ECC Cable.			
6	Supply	No	2.00	
7	Install	No	2.00	
	<u>CABLE MARKER TAPE.</u>			
	320mm Wide.			
8	Supply	m	85.00	
9	Install	m	85.00	
	Carried to Collection		R	
	Section No. 4 Electrical Installation (Provisional) Bill No. 1 Electrical Installation			

Item No			Quantity	Rate	Amount
	<u>Supply cable route markers, must consist of 150x150x300mm high concrete blocks wit aluminium or other rust free material marked with arrows to indicate cable route.</u>				
	Cable route markers.				
10	Supply	No	10.00		
11	Install	No	10.00		
	<u>EXCAVATION AND BACKFILLING:</u>				
	<u>Excavate, backfill and compact in all materials including disposal of unsuitable/surplus material per running meter 60mm deep x 450mm wide.</u>				
12	600mm deep x 450mm wide soft excavation.	m	50		
13	600mm deep x 450mm wide intermediate excavation.	m	35		
14	Rock (Provisional).		Item		
15	Allow for the importation of bedding material as directed by the Engineer.		Item		
	<u>CABLE SLEEVES.</u>				
	<u>Supply and Installation of Cable Sleeve as specified in trenches or cast in concrete, excluding trenching or backfilling:</u>				
	75mm ² PVC cable sleeves				
16	Supply	m	85.00		
17	Install	m	85.00		
	<u>MANHOLES</u>				
	600mm x 600mm manhole.				
18	Supply	m	2.00		
	Carried to Collection				R
	Section No. 4 Electrical Installation (Provisional) Bill No. 1 Electrical Installation				

Item No		Quantity	Rate	Amount
19	Install	m	2.00	
	DRAW WIRES .			
	Supply and Installation of galvanized steel draw wires drawn into conduit, cable sleeve or wiring channel.			
	1mm ² Galvanized draw wire.			
20	Supply	m	85.00	
21	Install	m	85.00	
	LIGHTING AND POWER			
	DISTRIBUTION BOARD			
	<u>Installation and Commissioning of the specified Control Panel, including making off all wire connections, earthing and conduit terminations but exclude cable terminations.</u>			
	63A Single Phase IP65 Weather Proof Control Panel Pole mounted.			
22	Supply	m	1.00	
23	Install	m	1.00	
	TESTING AND COMMISSIONING			
24	Allow for a Lump Sum for testing and commissioning of the entire electrical installation, including the provision of Compliance Certificate.		Item	
	Carried to Collection			R
	Section No. 4 Electrical Installation (Provisional) Bill No. 1 Electrical Installation			

Section No. 4

Electrical Installation (Provisional)

Bill No. 1

Electrical Installation

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Electrical Installation (Provisional)

Bill No. 1

Electrical Installation

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