

INDEX TO BILLS OF QUANTITIES

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PRELIMINARIES

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<u>SECTION NO. 1</u> <u>PRELIMINARIES</u> <u>Bill No. 1</u> <u>PRELIMINARIES</u> <u>SECTION 1</u> <u>PRELIMINARIES</u> <u>MEANING OF TERMS "TENDER / TENDERER"</u> Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder". The JBCC Preliminaries Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked. "N/A" signifying "Not Applicable". <u>PRICING OF PRELIMINARIES</u> Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item. Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities. <u>SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT</u> <u>DEFINITIONS</u> <u>A1.0 DEFINITIONS AND INTERPRETATION</u> <u>Clause 1.0</u> Clause 1.1 Definition of 'Commencement Date' is added: 'COMMENCEMENT DATE' means the date that is 5 working days after site hand over. Clause 1.1 Definition of 'Construction Guarantee' is amended by replacing it with the following: 'CONSTRUCTION GUARANTEE' means a guarantee at call obtained by the contractor from an institution approved by the employer in terms of the employer's construction guarantee form as selected in the schedule. Clause 1.1 Definition of 'Construction Period' is amended by replacing it with the following: 'CONSTRUCTION PERIOD' means the period commencing on the commencement date and ending on the date of practical completion. TOTAL CARRIED TO BILL SUMMARY Section No. 1 Bill No. 1 Preliminaries	R

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	Clause 1.1 Definition of 'Corrupt Practice' is added: 'CORRUPT PRACTICE' means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. Clause 1.1 Definition of 'Fraudulent Practice' is added: 'FRAUDULENT PRACTICE' means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial noncompetitive levels and to deprive the tenderer of the benefits of free and open competition. Clause 1.1 Definition of 'Interest' is amended by replacing it with the following: 'INTEREST' means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be in terms of the legislation of the Republic of South Africa, and in particular: (a) in respect of interest owed by the employer, the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and (b) in respect of interest owed to the employer, the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply. Clause 1.1 Definition of 'Principal Agent' is amended by replacing it with the following: 'PRINCIPAL AGENT' means the person or entity appointed by the employer and named in the schedule. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by a representative of the employer as named in the schedule. Clause 1.1 Definition of 'Security' is amended by replacing it with the following: 'SECURITY' means the form of security provided by the employer or contractor, as stated in the schedule, from which the contractor or employer may recover expense or loss. Clause 1.6 is amended by replacing the words "prepaid registered post, 'telefax or e-mail' with 'prepaid registered post or telefax' Clause 1.6.4 is amended by replacing it with the following: No clause.	
1	Fixed: _____ Value related: _____ Time related: _____ <u>OBJECTIVE AND PREPARATION</u> <u>A2.0 OFFER, ACCEPTANCE AND PERFORMANCE</u> <u>Clause 2.0</u>	Item
2	Fixed: _____ Value related: _____ Time related: _____	Item
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	<u>A3.0 DOCUMENTS</u> <u>Clause 3.0</u> Clause 3.1 is deleted and substituted with: 'This tender is for a Government Contract. No Payment Guarantee will be provided.' Clause 3.2.1 is amended by replacing '14.1' with '14.0' Clause 3.3 is deleted and substituted with: 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'. Clause 3.7 is amended by the addition of the following: The contractor shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site, to which the employer, principal agent and agents shall have access at all times. Clause 3.10 is amended by replacing the second reference to 'principal agent with the word 'employer'	
3	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>A4.0 DESIGN RESPONSIBILITY</u> <u>Clause 4.0</u> Clause 4.3 is amended by replacing it with the following: No clause.	
4	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>A5.0 EMPLOYERS AGENTS</u> <u>Clause 5.0</u> Clause 5.1.2 is amended to include clauses 32.6.3, 34.3 and 34.4 in terms of which the employer has retained its authority and has not given a mandate to the principal agent and in terms of which the employer shall sign all documents.	
5	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>A6.0 SITE REPRESENTATIVE</u> <u>Clause 6.0</u>	
6	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>A7.0 COMPLIANCE WITH REGULATIONS</u> <u>Clause 7.0</u> Note: A separate clause has been included in Section C: Specific Preliminaries of the bills of quantities / lump sum document for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification	
7	Fixed: _____ Value related: _____ Time related: _____	Item
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	<u>A8.0 WORKS RISK</u> <u>Clause 8.0</u> 8 Fixed: _____ Value related: _____ Time related: _____ <u>A9.0 INDEMNITIES</u> <u>Clause 9.0</u> 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'. 9 Fixed: _____ Value related: _____ Time related: _____ <u>A10.0 WORKS INSURANCES</u> <u>Clause 10.0</u> Clause 10.0 is amended by the addition of the following clauses: <u>10.5 Damage to the Works:</u> (a) Without in any way limiting the contractors obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary. (b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works. (c) The employer shall carry the risk of damage to or destruction of the works and material paid for by the employer that is the result of the excepted risks as set out in 10.6. (d) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof. <u>10.6 Injury to Persons or loss of or damage to Properties:</u> (a) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the works unless due to any act or negligence of any person for whose actions the employer is legally liable.		
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	(b) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or neglect of any person for whose actions the employer is legally liable.	
	(c) The contractor shall, upon receiving a contract instruction from the principal agent, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the employer shall be entitled to cause it to be made good and to recover the cost thereof from the contractor or to deduct the same from amounts due to the contractor.	
	(d) The contractor shall be responsible for the protection and safety of such portions of the premises placed under his control by the employer for the purpose of executing the works until the issue of the certificate of practical completion.	
	(e) Where the execution of the works involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the contractor shall obtain adequately insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the works has been completed.	
	(f) The contractor shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the works.	
	<u>10.7 High risk insurance:</u>	
	In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:	
	<u>10.7.1 Damage to the works:</u>	
	The contractor shall, from the commencement date of the works until the date of the certificate of practical completion bear the full risk of and hereby indemnifies and holds harmless the employer against any damage to and/or destruction of the works consequent upon a catastrophic ground movement as mentioned above. The contractor shall take such precautions and security measures and other steps for the protection of the works as he may deem necessary.	
	When so instructed to do so by the principal agent, the contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works, at the contractor's own costs.	
	<u>10.7.2 Injury to persons or loss of or damage to property:</u>	
	The contractor shall be liable for and hereby indemnifies and holds harmless the employer against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above.	
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	The contractor shall be liable for and hereby indemnifies the employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the siteb, whether belonging to or under the control of the employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract. 10.7.3 It is the responsibility of the contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the commencement date but before commencement of the works, submit to the employer proof of such insurance policy, if requested to do so. 10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the contractor's default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the contractor or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the employer and the contractor and for this purpose all these contracts shall be considered one indivisible whole.	
10	Fixed: _____ Value related: _____ Time related: _____ <u>A11.0 LIABILITY INSURANCES</u> <u>Clause 11.0</u>	Item
11	Fixed: _____ Value related: _____ Time related: _____ <u>A12.0 EFFECTING INSURANCES</u> <u>Clause 12.0</u>	Item
12	Fixed: _____ Value related: _____ Time related: _____ <u>A13. No clause</u>	Item
13	Fixed: _____ Value related: _____ Time related: _____ <u>A14.0 SECURITY</u> <u>Clause 14.0</u> Clauses 14.1 - 14.8 are amended by replacing them with the following: 14.1 The security to be submitted by the contractor to the employer will be as a payment reduction of up to ten per cent (10%) of the value certified in the payment certificate (excluding VAT). 14.1.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(A). 14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor.	Item
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	14.2 Where security as a payment reduction of ten per cent (10%) of the value certified in the payment certificate (excluding VAT) has been selected: 14.2.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(B). 14.2.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor. 14.9 Should the contractor fail to furnish the security in terms of 14.2, the employer, in his sole discretion and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT), whereafter 14.7 shall be applicable.	
14	Fixed: _____ Value related: _____ Time related: _____ <u>EXECUTION</u> <u>A15.0 PREPERATION FOR AND EXECUTION OF THE WORKS</u> <u>Clause 15.0</u> Clause 15.1.1 is amended by replacing it with: No clause. Clause 15.1.2 is amended by replacing it with: The security selected in terms of 14.0. Clause 15.1 is amended by the addition of the following clause: 15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within fourteen (14) calendar days of commencement date. Clause 15.2.1 is amended by replacing it with the following clause: Give the contractor possession of the site within ten (10) working days of the contractor complying with the terms of 15.1.4.	Item
15	Fixed: _____ Value related: _____ Time related: _____ <u>A16.0 ACCESS TO THE WORKS</u> <u>Clause 16.0</u>	Item
16	Fixed: _____ Value related: _____ Time related: _____ <u>A17.0 CONTRACT INSTRUCTIONS</u> <u>Clause 17.0</u> Clause 17.1.11 is amended by deleting the words 'and the appointment of nominated and selected subcontractors'.	Item
17	Fixed: _____ Value related: _____ Time related: _____	Item
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	<u>A25.0 WORK'S COMPLETION</u>		
	<u>Clause 25.0</u>		
25	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A26.0 FINAL COMPLETION</u>		
	<u>Clause 26.0</u>		
	Latent defects liability period (Clause 27).		
26	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A27.0 LATENT DEFECTS LIABILITY PERIOD</u>		
	<u>Clause 27.0</u>		
	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".		
	"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"		
27	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A28.0 SECTIONAL COMPLETION</u>		
	<u>Clause 28.0</u>		
28	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION</u>		
	<u>Clause 29.0</u>		
	<u>Clause 29.2.5 is amended by replacing it with:</u>		
	<u>No clause.</u>		
29	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A30.0 PENALTY FOR NON-COMPLETION</u>		
	<u>Clause 30.0</u>		
30	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>PAYMENT</u>		
	<u>A31.0 INTERIM PAYMENT TO THE CONTRACTOR</u>		
	<u>Clause 31.0</u>		
	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.		
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	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 31.5.2 is amended by replacing '14.7.1' with '14.0 and 31.8'. Clause 31.8 is amended by replacing it with the following two alternative clauses: <u>Alternative A</u> 31.8(A) Where a security is selected in terms of 14.1; the value of the works in terms of 31.4.1 and materials and goods in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments: 31.8(A).1 Ninety-five percent (95%) of such value in interim payment certificates issued up to the date of practical completion. 31.8(A).2 Ninety-eight percent (98%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion. 31.8(A).3 Ninety-nine percent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 34.6. 31.8(A).4 One hundred percent (100%) of such value in the final payment certificate in terms of 34.6 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate. Clause 31.12 is amended by deleting the following: Payment shall be subject to the employer giving the contractor a tax invoice for the amount due.	
31	Fixed: _____ Value related: _____ Time related: _____ <u>A32.0 ADJUSTMENT TO THE CONTRACT VALUE</u> <u>Clause 32.0</u> Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence: 'due to no fault of the contractor' 33.2.9 the contractor's failure or neglect to commence with the works on the dates prescribed in the contract. 33.2.10 the contractor's failure or neglect to proceed with the works in terms of the contract. 33.2.11 the contractor's failure or neglect for any reason to complete the works in accordance with the contract. 33.2.12 the contractor's refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing given in terms of the contract.	Item
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Item		Item	Amount
	33.2.13 the contractor's estate being sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.		
32	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A33.0 RECOVERY OF EXPENSE AND LOSS</u>		
	<u>Clause 33.0</u>		
33	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A34.0 FINAL ACCOUNT AND FINAL PAYMENT</u>		
	<u>Clause 34.0</u>		
	Clause 34.1 is amended by removing "#" next to 34.1.		
	Clause 34.2 is amended by inserting "#" next to 34.2.		
	Clause 34.13 is amended by replacing 'seven (7) calendar days' with 'twenty-one (21) calendar days' and deleting the words 'subject to the employer giving the contractor a tax invoice for the amount due'.		
34	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>A35.0 PAYMENT TO OTHER PARTIES</u>		
	<u>Clause 35.0</u>		
35	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>CANCELLATION</u>		
	<u>A36.0 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT</u>		
	<u>Clause 36.0</u>		
	Clause 36.1 is amended by the addition of the following clauses:		
	36.1.3 refuses or neglects to comply strictly with any of the conditions of contract.		
	36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.		
	36.1.5 in the judgement of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.		
	Clause 36.3 is amended by removing the reference to "No clause" and replacing the words 'principal agent' with 'employer'.		
	Clause 36.0 is amended by the addition of the following clause:		
	36.0 Remove reference to 'No clause', and replace 'principal agent' with 'employer'.		
	36.7.0 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever.		
36	Fixed: _____ Value related: _____ Time related: _____	Item	
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Item		Amount
	<u>A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE</u> <u>Clause 37.0</u> Clause 37.3.5 is amended by replacing 'ninety (90)' with 'one hundred and twenty (120)'. Clause 37.0 is amended by the addition of the following clause: 37.3.5 Replace “ninety (90)” with “one hundred and twenty (120) and 38.5.4.	
37	Fixed: _____ Value related: _____ Time related: _____ <u>A38.0 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT</u> <u>Clause 38.0</u> Clause 38.5.4 is amended by replacing 'ninety (90)' with 'one hundred and twenty (120)'. Clause 38.0 is amended by the addition of the following clause: 38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever.	
38	Fixed: _____ Value related: _____ Time related: _____ <u>A39.0 CANCELLATION - CESSATION OF THE WORKS</u> <u>Clause 39.0</u> <u>Clause 39.3.5 is amended by the addition of the following at the end of the sentence:</u> <u>'within one hundred and twenty (120) working days of completion of such a report'.</u>	
39	Fixed: _____ Value related: _____ Time related: _____ <u>DISPUTE</u> <u>A40.0 DISPUTE SETTLEMENT</u> <u>Clause 40.0</u> Clause 40.2.2 is amended by replacing 'one (1) year' with 'three (3) years'. Clause 40.6 is amended by removing the reference to: No clause. Clause 40.7.1 is amended by replacing '(10)' with '(15)' and by the addition of the following: Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the mediator and related costs.	
40	Fixed: _____ Value related: _____ Time related: _____	
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Item		Item	Amount
	<u>B2.6 Tender submission</u>		
	Clause 2.6 is amended by replacing 'JBCC Form of Tender' with "Form of Offer and Acceptance (C1.1)".		
49	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.0 THE SITE</u>		
	<u>B3.1 Defined works area</u>		
50	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.2 Geotechnical investigation</u>		
51	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.3 Inspection of the site</u>		
52	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.4 Existing premises occupied</u>		
53	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.5 Previous work - dimensional accuracy</u>		
54	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.6 Previous work - defects</u>		
55	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.7 Services - known</u>		
56	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.8 Services - unknown</u>		
57	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.9 Protection of trees</u>		
58	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.10 Articles of value</u>		
59	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B3.11 Inspection of adjoining properties</u>		
60	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B4.0 MANAGEMENT OF CONTRACT</u>		
	<u>B4.1 Management of the works</u>		
61	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B4.2 Programme for the works</u>		
62	Fixed: _____ Value related: _____ Time related: _____	Item	
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Item		Amount
	<u>B4.3 Progress meetings</u>	
63	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B4.4 Technical meetings</u>	
64	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B4.5 Labour and plant records</u>	
65	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</u>	
	<u>B5.1 Samples of materials</u>	
66	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B5.2 Workmanship samples</u>	
67	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B5.3 Shop drawings</u>	
68	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B5.4 Compliance with manufacturers instructions</u>	
69	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B6.0 TEMPORARY WORKS AND PLANT</u>	
	<u>B6.1 Deposits and fees</u>	
70	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B6.2 Enclosure of the works</u>	
71	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B6.3 Advertising</u>	
72	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B6.4 Plant, equipment, sheds and offices</u>	
73	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B6.5 Main notice board</u>	
74	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B6.6 Subcontractors' notice board</u>	
75	Fixed: _____ Value related: _____ Time related: _____	Item
	<u>B7.0 TEMPORARY SERVICES</u>	
	<u>B7.1 Location</u>	
76	Fixed: _____ Value related: _____ Time related: _____	Item
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Item		Item	Amount
	<u>B11. GENERAL</u>		
	<u>B11.1 Protection of the works</u>		
89	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.2 Protection / isolation of existing / sectionally occupied works</u>		
90	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.3 Security of the works</u>		
91	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.4 Notice before covering work</u>		
92	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>11.5 Disturbance</u>		
93	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.6 Environmental disturbance</u>		
94	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.7 Works cleaning and clearing</u>		
95	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.8 Vermin</u>		
96	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.9 Overhand work</u>		
97	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.10 Instruction manuals and guarantees</u>		
98	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.11 As built information</u>		
99	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B11.12 Tenant installations</u>		
100	Fixed: _____ Value related: _____ Time related: _____	Item	
	<u>B12. SCHEDULE OF VARIABLES</u>		
	<u>B12.1 Pre-tender information</u>		
101	Fixed: _____ Value related: _____ Time related: _____	Item	
	This schedule contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries.		
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	Spaces requiring information must be filled in, shown as 'not applicable' or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [] brackets.	
	<u>12.1 PRE TENDER INFORMATION</u>	
	<u>12.1.1 Provisional Bills of Quantities</u>	
	[2.2] The quantities are provisional: No	
	<u>12.1.2 Availability of construction documentation</u>	
	[2.3] Construction of documentation is complete: No	
	<u>12.1.3 Interest of agents</u>	
	[2.4] Details: None	
	<u>12.1.4 Defined works area</u>	
	[3.1] Details: Yes. As depicted on the site plan.	
	<u>12.1.5 Geotechnical investigation</u>	
	[3.2] Details: No	
	<u>12.1.6 Existing premises occupied</u>	
	[3.4] Specific requirements: Yes. See C3 Scope of Works and C4 Site information.	
	<u>12.1.7 Previous work - dimensional accuracy</u>	
	[3.5] Details: No	
	<u>12.1.8 Previous work - defects</u>	
	[3.6] Details: No	
	<u>12.1.9 Services - known</u>	
	[3.7] Details: Yes. Contractor is to inspect the site and mark up all services that are visible	
	<u>12.1.10 Protection of trees</u>	
	[3.9] Specific requirements: No	
	<u>12.1.11 Inspection of adjoining properties</u>	
	[3.11] Specific requirements:None	
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<u>12.1.12 Enclosure of the works</u> [6.2} Specific requirements: Yes. The Contractor will, throughout the entire period of the works, be responsible for the proper and adequate protection of property and the public and pupils and staff from damage or injury resultant from the works and for the proper security of the site at all times during the course of the works. Further, the Contractor must allow for all temporary hoardings, fans and walkways, etc. required by the Municipality, Construction Regulations, 2014 issued in terms of the Occupational Health and Safety Act, 1993, any other legal requirement and or demanded by his own requirements. Allowance must further be made for periodic adjustment of any hoardings and for their eventual removal and for making good. Where prescribed/ specific hoarding and dust screens are required they have been measured in the Bills of Quantities. The Contractor must price for all additional hoarding requirements in the Preliminaries Bill of these Bills of Quantities. No claims in respect of hoardings will be entertained. <u>12.1.13 Offices</u> [6.4.3] Specific requirements: The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times. The Contractor shall provide a lockable container for storage of materials. <u>12.1.14 Main notice board</u> [6.5] Specific requirements: The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 2,3 x 3,13m. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. <u>12.1.15 Subcontractors' notice board</u> [6.6] Specific requirements: No <u>12.1.16 Water</u> [7.2) Option A (by contractor) Yes Option B (by employer - free of charge) No Option C (by b employer - metered) No <u>12.1.17 Electricity</u> [7.3] Option A (by contractor) Yes Option B (by employer - free of charge) No Option C (by b employer - metered) No <u>12.1.18 Telecommunications</u> [7.4] Telephone Yes, Facsimile Yes, E-mail Yes <u>12.1.19 Ablution facilities</u> [7.5} Option A (by contractor) Yes Option B (by employer) No <u>12.1.20 Protection of existing/sectionally occupied works</u> [11.2] Protection is required Yes	
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	<u>12.1.21 Special attendance</u> [9.2] Subcontractor (1) details: None Subcontractor (2) details: None Subcontractor (3) details: None Subcontractor (4) details: None <u>12.1.22 Protection of works</u> [11.1] Specific requirements: None <u>12.1.23 Disturbance</u> [11.5] Specific requirements: The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent. <u>12.1.24 Environmental disturbance</u> [11.6] Specific requirements: None <u>12.2 POST-TENDER INFORMATION</u> <u>12.2.1 Payment of preliminaries</u> [10.2] Option A (pro-rated) Yes/No Option B (calculates) Yes/No <u>12.2.2 Adjustment of preliminaries</u> [10.3] Option A (three categories) Yes/No Option B (detailed breakdown) Yes/No <u>12.2.3 Additional agreed preliminaries items</u> Details: N/A <u>SECTION C: SPECIFIC PRELIMINARIES</u> Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item. <u>C1 CONTRACT DRAWINGS</u> The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed. A full set of drawings is issued with the tender documents indicating the full scope of the work to enable the tenderer to acquaint himself with the nature and extent of the works and the manner in which they are to be executed. Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the Principal Agent.	
102	Fixed: _____ Value related: _____ Time related: _____ <u>C2 GENERAL PREAMBLES</u> The document "Specification of Materials and Methods to be used (PW371)" is obtainable on the Department of Public Work's web site (http://www.publicworks.gov.za/ under "Consultants Guidelines"), and shall be read in conjunction with the bills of quantities / lump sum document and be referred to for the full descriptions of work to be done and materials to be used.	Item
103	Fixed: _____ Value related: _____ Time related: _____	Item
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	<u>C3 TRADE NAMES</u> Wherever a trade name for any product has been described in the bills of quantities / lump sum document, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders. If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for.		
104	Fixed: _____ Value related: _____ Time related: _____ <u>C4 HIV/AIDS AWARENESS</u> It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities / lump sum document . Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained. The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of Clause A 31.0 or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment. <u>C4.1 AWARENESS CHAMPION</u> Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification.		
105	Fixed: _____ Value related: _____ Time related: _____ <u>C4.2 AWARENESS WORKSHOPS</u> Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification.		
106	Fixed: _____ Value related: _____ Time related: _____ <u>C5.3 POSTERS, BOOKLETS, VIDEOS, ETC.</u> Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification.		
107	Fixed: _____ Value related: _____ Time related: _____		
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	C7 EMPLOYMENT OF SMME SUB-CONTRACTORS The Contractor shall price for the employment of SMME Sub-Contractors as set out in Item T2.2 of the Returnable Schedules 'Form E: Schedule of Proposed Subcontractors' of these tender documents and comply with all the requirement of mandatory subcontracting of SMMEs where feasible of up to 25 to 35% of their contract value (Including VAT) as stipulated under the SMME subcontracting requirements. The Principal Contractor shall on fulltime basis closely mentor, manage and supervise all SMMEs and shall manage, guide and assist each SMMEs in all aspects of management, execution and completion of his/her subcontract. This shall typically include the on-site productivity planning and management of materials, cost management, contract management, Health and Safety management, quality management, communication management and close-out documentation including provision of required PPE and medicals to employees. All items that attract cost in order to comply with the aforementioned Employment of SMME Sub-Contractors are to be priced hereunder and no additional claims in this regard will be entertained.	
111	Fixed: _____ Value related: _____ Time related: _____	Item
	C8 CONTRACTORS MONTHLY REPORT The Contractor is to price for all costs associated with compiling the monthly contractors report included under C3.3 Contractors Monthly Report of these tender documents. All items that attract cost in order to comply with the aforementioned Contractors Report are to be priced hereunder and no additional claims in this regard will be entertained.	
112	Fixed: _____ Value related: _____ Time related: _____	Item
	C9 SCHEDULE OF CERTIFICATES OF COMPLIANCE REQUIRED The Contractors attention is drawn to C3.4 Schedule of Certificates of Compliance Required. The Contractor shall price hereunder all other items that are likely to attract cost in providing these certifiectes of compliance required.	
113	Fixed: _____ Value related: _____ Time related: _____	Item
	C10 OFFICE ACCOMMODATION The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times.	
114	Fixed: _____ Value related: _____ Time related: _____	Item
	C11 STORAGE FACILITIES The Contractor shall provide a lockable Container for storage of materials with a concrete and steel floor.	
115	Fixed: _____ Value related: _____ Time related: _____	Item
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<u>SECTION NO. 1</u> <u>PRELIMINARIES</u> <u>Bill No. 2</u> <u>OCCUPATIONAL, HEALTH AND SAFETY PRICING SCHEDULE</u> <u>TRADE PREAMBLES</u> <u>Trade Preambles:</u> For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill. <u>SUPPLEMENTARY PREAMBLES</u> <u>Supplementary Preambles:</u> Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent each item. Prior to pricing the principal contractor must familiarize him/herself with the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, other relevant Regulations and Standards as well as project specific Health & Safety specifications. The quantities contained herein serve as a guideline only to determine if the contractor has sufficiently priced for the Health and Safety obligations and demands of the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, other relevant Regulations and Standards as well as project specific Health & Safety specifications. Were quantities are missing the contractor is to insert his own quantities based on his individual requirements to comply with the Health and Safety obligations and demands of the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, other relevant Regulations and Standards as well as project specific Health & Safety specifications. After pricing of the health and safety bill of quantities, the Contractor must sign the Certificate of Acquaintance as evidence that he is up to date regarding the contents, obligations and demands of the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, other relevant Regulations and Standards as well as project specific Health & Safety specifications. Failure, by the Tenderer, to sign the Certificate of Acquaintance may result in the Tender being deemed non-responsive.				
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Occupational, Health And Safety Pricing Schedule				

Item	Unit	Quantity	Rate	Amount
All Costs to comply with the obligations and demands of the Occupational Health and Safety Act No. 85 Of 1993, Construction Regulations 2014, other relevant Regulations and Standards as well as project specific Health & Safety specifications must be carried to Preliminaries item 116 on page 27 of the Bills of Quantities 'C11 OCCUPATIONAL HEALTH AND SAFETY ACT' <u>OCCUPATIONAL HEALTH AND SAFETY</u> <u>General:</u>				
1	Item			
2	Item			
3	Item			
4	Item			
5	Item			
<u>Provide, supply and maintenance for each worker the following SANS approved personal protective equipment clothing as per the site-specific risk assessments:</u>				
6	No			
7	No			
8	No			
9	No			
10	No			
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Occupational, Health And Safety Pricing Schedule				

Item		Unit	Quantity	Rate	Amount
11	Dust Mask(at least FF2 type). (Contractor is to insert the quantity based on the Contractors own requirements)	No			
12	Respirators. (Contractor is to insert the quantity based on the Contractors own requirements)	No			
13	Safety goggles. (Contractor is to insert the quantity based on the Contractors own requirements)	No			
14	High visibility reflective vests and/or bibs. (Contractor is to insert the quantity based on the Contractors own requirements)	No			
15	Temporary warning signs and symbols.	Item			
16	SANS approved safety netting (orange color with minimum of 1,2 meters high). (Contractor is to insert the quantity based on the Contractors own requirements)	m			
17	Provision for the supply and maintenance of Road Traffic Signs as in terms of the South African Road Traffic Signs Manual complete.	Item			
18	Allow for Pre-employment medical examinations.	Item			
19	Allow for exit medical examinations.	Item			
	<u>Covid 19 items:</u>				
20	The Contractor is required to price for Covid 19 compliance and the pricing thereof shall be deemed to include all the mandatory requirements.	Item			
	<u>Compulsory breakdown for the adjustment of preliminaries:</u>				
	Time Related. (R_____)				
	Fixed Value Related. (R_____)				
	Value Related. (R_____)				
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PRELIMINARIES

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SECTION NO. 2

DEMOLITIONS (PROVISIONAL)

Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 2</u> <u>DEMOLITIONS (PROVISIONAL)</u> <u>Bill No. 1</u> <u>DEMOLITIONS (PROVISIONAL)</u> <u>TRADE PREAMBLES</u> <u>Trade Preambles:</u> For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill. <u>SUPPLEMENTARY PREAMBLES</u> <u>Proprietary items or materials:</u> Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent. <u>View site:</u> Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained. <u>Explosives:</u> No explosives whatsoever may be used for demolition purposes unless otherwise stated. <u>General:</u> Water supply pipes and other piping in ground 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. Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site. <u>Removal of asbestos material:</u> All preparatory work, alterations, etc., to existing asbestos cement roof sheeting, gutters, rainwater pipes, etc., is to be carried out strictly by an approved and certified specialist company and in accordance with statutory requirements (Occupational Health and Safety Act, 1993 - Asbestos Regulations 2001) and all necessary precautions must be taken when working with and disposing of asbestos cement products and the disposal of waste water resulting from cleaning operations, etc.				
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Demolitions (provisional)				

Item		Unit	Quantity	Rate	Amount
	<u>The following shall apply in respect of asbestos removal:</u> The removal of asbestos shall be carried out by a certified entity, registered in accordance with the Occupational Health and Safety Act, 1993 and the Asbestos Regulations 2001. Asbestos in all forms/building elements that is to be removed, shall be carried out in strict accordance with aforementioned regulation and a certificate issued by the entity as contemplated in the above, shall be provided per block for the removal thereof, where the term block shall in this context refer to any single, free standing building structure, regardless of size or purpose. Corresponding disposal certificates shall be issued by the facility at which the asbestos is disposed off, with said facility to, prior to the disposal of any asbestos material provide satisfactory proof that the facility is duly registered and fully compliant in terms of the act, to receive the asbestos material. Under no circumstances is the Contractor nor any of his duly authorised representatives to sell and/or give away asbestos material to any member/s of the school community, the community in general or the public at large. Should this be found to be occurring, the Contractor will be held responsible contractually and may further be prosecuted criminally. The cost for complying with the above, and all requirements of regulation as reflected above is to be priced for in terms for removal of asbestos material. No further claims in this regard will therefore be entertained. <u>DEMOLITIONS</u> <u>Demolishing and removing:</u>				
1	Single storey toilet size 1,40 x 1,90m on plan and approximately 2,20m high overall, comprising of 140mm block wall, unreinforced concrete surface bed, mono pitched corrugated iron roof sheeting on timber purlins and rafters and timber door and frame, including pit foundation 1,80 x 2,30m and approximately 2,0m deep and desposing of existing soil waste on terms of current regulations. Demolition is to only commence once the latrine has been completely emptied (elsewhere measured). (1 seat)	No	2		
2	Precast fabricated VIP toilet size 5,50 x 2,60m on plan and approximately 2,90m high overall, precast concrete slab, mono pitched IRB roof sheeting on timber purlins and rafters, timber doors and frames, pit foundation 5,50 x 2,50m and approximately 2,0m deep and precast concrete pit slab including manholes, vent pipes, etc and desposing of existing soil waste on terms current regulations. Demolition is to only commence once the latrine has been completely emptied (elsewhere measured). (6 seats)	No	2		
	TOTAL CARRIED TO BILL SUMMARY			R	
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Item		Unit	Quantity	Rate	Amount
3	Backfill existing hole with G7 fill material in max. 150mm layers and compact to 95% MOD AASHTO density.	m ³	72		
4	Allow for compaction tests by an approved laboratory to determine density of filling material.	No	10		
<u>SUNDRIES</u>					
<u>Desludging:</u>					
5	Clean out pit latrine by desludging including removal of all debris and waste including solid waste as per Health and Safety requirements and make good on completion including disposing of all debris and waste at an authorised municipal waste disposal facility. (Contractor to price per seat)	No	14		
6	Issue of certificate of waste disposal.	Item			
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SECTION NO. 3

SUBSTRUCTURE (PROVISIONAL)

Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 3</u>				
<u>SUBSTRUCTURE (PROVISIONAL)</u>				
<u>Bill No. 1</u>				
<u>SUBSTRUCTURE (PROVISIONAL)</u>				
<u>Key:</u>	<u>Location Description:</u>			
D02	STAFF TOILET (02)			
D06	GRADE R TOILET (06)			
D18	FEMALE TOILET (18)			
D28	MALE TOILET (28)			
D41	M & F TOILET (41)			
I	ITEM			
<u>TRADE PREAMBLES</u>				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Proprietary items or materials:</u>				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
<u>Nature of ground:</u>				
The material to be excavated is assumed to be predominantly of a composition that will allow excavation in "earth" as specified, but including a percentage of excavation in "soft rock" and "hard 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>Excavation for working space in rock:</u>				
Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as 'extra over' bulk excavation or trench and hole excavation as the case may be.				
<u>Filling:</u>				
Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.				
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Item		Unit	Quantity	Rate	Amount
<u>EXCAVATION OTHER THAN BULK</u>					
<u>Excavation in earth not exceeding 2m deep:</u>					
1	Trenches.	m ³	38		
	D02 9 D06 8 D18 7				
	D28 5 D41 9				
2	Holes.	m ³	108		
	D02 21 D06 26 D18 20				
	D28 14 D41 27				
<u>Extra over excavations other than in earth for excavation in:</u>					
3	Soft rock.	m ³	36		
	D02 7 D06 8 D18 7				
	D28 5 D41 9				
4	Hard rock.	m ³	21		
	D02 4 D06 5 D18 4				
	D28 3 D41 5				
<u>Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 95% Mod AASHTO density:</u>					
5	Not exceeding 500mm deep for working around external pit walls, etc. 100mm away from excavated face.	m ²	33		
	D02 7 D06 7 D18 6				
	D28 5 D41 8				
6	Exceeding 500mm and not exceeding 1,5m deep for working around external pit walls, etc. 100mm away from excavated face.	m ²	67		
	D02 13 D06 15 D18 13				
	D28 11 D41 15				
7	Exceeding 1,5m and not exceeding 3,0m deep for working around external pit walls, etc. 100mm away from excavated face.	m ²	5		
	D02 1 D06 1 D18 1				
	D28 1 D41 1				
<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>					
8	Off site to a dumping site to be found by the Contractor.	m ³	130		
	D02 26 D06 31 D18 24				
	D28 17 D41 32				
<u>Risk of collapse of excavations other than bulk:</u>					
9	Sides of trench and hole excavations not exceeding 1,5m deep.	m ²	104		
	D02 23 D06 21 D18 20				
	D28 15 D41 25				
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Item		Unit	Quantity	Rate	Amount
10	Sides of trench and hole excavations exceeding 1,5m deep. D02 25 D06 29 D18 25 D28 21 D41 29 <u>Keeping excavations free of water:</u>	m ²	129		
11	Keeping excavations free of all water other than subterranean water. I 1 <u>De-watering of seepage water and water from other subterranean sources in excavations:</u>	Item			
12	Provide pump with minimum 1000 litre/hour capacity at 7m head, including maintenance and removal. I 1	No	1		
13	Provide necessary hoses for the above including couplings, etc. I 25	m	25		
14	Allow for pumping. (one pump) I 30 <u>FILLING, ETC OTHER THAN BULK</u> <u>Filling with material from the excavations compacted to a density of at least 95% Mod. AASHTO maximum density:</u>	Hrs	30		
15	Backfilling to trenches, holes, etc. D02 4 D06 3 D18 3 D28 2 D41 4 <u>Filling with G5 material in accordance with SABS 1200 DM, material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>	m ³	16		
16	Under floors, etc. D02 5 D06 5 D18 3 D28 2 D41 5 <u>Coarse river sand filling supplied by the contractor:</u>	m ³	20		
17	Under floors, etc. D02 1 D06 1 D18 1 D41 1 <u>Surface Preparation:</u>	m ³	4		
18	Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 95% Mod. AASHTO maximum density, part to falls. D02 29 D06 33 D18 24 D28 17 D41 34	m ²	137		
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Item		Unit	Quantity	Rate	Amount
	<u>TESTS</u>				
	<u>Prescribed density tests on filling:</u>				
19	Modified AASHTO Density test.	No	17		
	D02 4 D06 4 D18 3				
	D28 2 D41 4				
	<u>SOIL POISONING</u>				
	<u>Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:</u>				
20	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming.	m ²	81		
	D02 18 D06 20 D18 14				
	D28 9 D41 20				
21	To bottoms and sides of trenches, holes, etc.	m ²	347		
	D02 73 D06 75 D18 66				
	D28 51 D41 82				
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
	<u>TRADE PREAMBLES</u>				
	<u>Trade Preambles:</u>				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Proprietary items or materials:</u>				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	<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).				
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Item		Unit	Quantity	Rate	Amount
	<u>Breeze Concrete:</u> Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated. <u>Foam cement Lightweight Concrete:</u> Foam Cement lightweight concrete is to have a density of 600kg/m³ for the top 50mm and 500kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 50mm. <u>Celbeton Lightweight Concrete:</u> Celbeton lightweight concrete is to have a density of 1000kg/m³ for the top 20mm and 408kg/m³ for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 30mm. <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. <u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u> <u>15MPa/19mm Concrete:</u>				
22	Surface blinding under footings and bases. D02 1 D06 1 D18 1 D28 1 D41 1	m ³	5		
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Item		Unit	Quantity	Rate	Amount
<u>REINFORCED CONCRETE</u>					
<u>30MPa/19mm Concrete:</u>					
23	Filling cavity wall.	m ³	17		
	D02 3 D06 4 D18 3				
	D28 3 D41 4				
24	Surface beds on waterproofing.	m ³	20		
	D02 5 D06 5 D18 3				
	D28 2 D41 5				
25	Slabs including beams and inverted beams.	m ³	14		
	D02 3 D06 3 D18 3				
	D28 2 D41 3				
<u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>					
<u>30MPa/19mm Concrete:</u>					
26	Strip footings.	m ³	15		
	D02 3 D06 3 D18 3				
	D28 2 D41 4				
27	Surface beds cast in panels.	m ³	11		
	D02 2 D06 3 D18 2				
	D28 1 D41 3				
<u>FINISHING TOP SURFACE OF CONCRETE</u>					
<u>Finishing top surfaces of concrete smooth with a wood float:</u>					
28	Surface beds, slabs, etc.	m ²	191		
	D02 39 D06 47 D18 34				
	D28 24 D41 47				
<u>TEST BLOCKS</u>					
<u>Test blocks:</u>					
29	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	9		
	D02 2 D06 2 D18 2				
	D28 1 D41 2				
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>Rough formwork to sides:</u>					
30	Edges, risers, ends and reveals not exceeding 300mm high or wide.	m	67		
	D02 13 D06 15 D18 13				
	D28 11 D41 15				
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Item		Unit	Quantity	Rate	Amount
	<u>Rough formwork to soffits:</u>				
31	Slabs propped up exceeding 1,5m and not exceeding 3,5m high including removing through manhole opening.	m ²	41		
	D02 8 D06 10 D18 8				
	D28 5 D41 10				
	<u>Rough formwork to form:</u>				
32	50mm Diameter opening through 255mm slab including chalking and sealing around 50 uPVC pipe. (uPVC pipe elsewhere).	No	3		
	D02 1 D28 1 D41 1				
33	110mm Diameter opening through 255mm slab including chalking and sealing around 110 uPVC pipe. (uPVC pipe elsewhere).	No	16		
	D02 3 D06 4 D18 3				
	D28 2 D41 4				
34	200mm Diameter opening through 255mm slab.	No	15		
	D02 3 D06 4 D18 3				
	D28 1 D41 4				
35	600mm Diameter opening through 370mm thick slab including rebates and sealing around manhole cover (elsewhere).	No	6		
	D02 1 D06 2 D18 1				
	D28 1 D41 1				
	<u>MOVEMENT JOINTS, ETC</u>				
	<u>Two layers of 375 micron dampproof course in slip joints between horizontal concrete and brick surfaces including cement mortar bed:</u>				
36	Not exceeding 300mm wide.	m	55		
	D02 13 D06 12 D18 12				
	D28 6 D41 12				
	<u>Expansion joints with bitumen impregnated softboard between vertical concrete or brick surfaces:</u>				
37	12mm Joints not exceeding 300mm high.	m	79		
	D02 18 D06 16 D18 15				
	D28 11 D41 19				
	<u>REINFORCEMENT</u>				
	<u>High tensile steel reinforcement to structural concrete work:</u>				
38	10mm Diameter bars.	Tonnes	1.19		
	D02 0.27 D06 0.24 D18 0.23				
	D28 0.17 D41 0.28				
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Item		Unit	Quantity	Rate	Amount
	<u>Fabric reinforcement:</u>				
39	Type 395 fabric reinforcement in concrete surface beds, etc. D02 18 D06 20 D18 14 D28 9 D41 20	m ²	81		
40	Type 888 fabric reinforcement in concrete surface beds, etc. D02 39 D06 47 D18 34 D28 24 D41 47	m ²	191		
41	Type 888 fabric reinforcement in concrete slab, etc. D02 21 D06 27 D18 51 D28 14 D41 27	m ²	140		
42	Type 888 fabric reinforcement in concrete walls. D02 24 D06 27 D18 23 D28 19 D41 28	m ²	121		
	<u>MASONRY</u>				
	<u>TRADE PREAMBLES</u>				
	<u>Trade Preambles:</u> For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Proprietary items or materials:</u> Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	<u>Sizes in descriptions:</u> Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.				
	<u>Hollow walls, etc:</u> Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.				
	<u>Bagged and sealed walls:</u> Walls in two skins described as 'bagged and sealed' shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats 'Brixcal' bitumen emulsion waterproofing coating.				
	<u>Face bricks:</u> Bricks shall be ordered timeously to obtain uniformity in size and colour.				
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Item		Unit	Quantity	Rate	Amount
	<u>Pointing:</u> Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc. <u>BRICKWORK IN FOUNDATIONS</u> <u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class I mortar with Coprox or equal approved masonry waterproofing cement additive. Add 2.5kg Coprox waterproof cement additive for every 50kg of cement used in mortar mix (Cement to be 42.5N all-purpose cement):</u>				
43	Half brick linings tied to concrete. D02 2 D06 3 D18 2 D28 2 D41 3	m ²	12		
44	One brick walls of two half brick skins with inner skin bagged and sealed. D02 14 D06 12 D18 12 D28 9 D41 14	m ²	61		
45	345mm Hollow walls of two half brick skins. (no ties) D02 24 D06 27 D18 23 D28 19 D41 28	m ²	121		
	<u>BRICKWORK SUNDRIES</u> <u>2.5mm Galvanised brick reinforcement:</u>				
46	75mm Wide reinforcement built in horizontally. D02 560 D06 639 D18 550 D28 456 D41 652	m	2 857		
47	150mm Wide reinforcement built in horizontally. D02 160 D06 141 D18 135 D28 101 D41 170	m	707		
	<u>FACE BRICKWORK</u> <u>'Qunu-Travertine' or equal approved FBS clay face bricks size 222 x 106 x 73mm, bedded, jointed in class I mortar with Coprox or equal approved masonry waterproofing cement additive. Add 2.5kg Coprox waterproof cement additive for every 50kg of cement used in mortar mix (Cement to be 42.5N all-purpose cement) and pointed with recessed horizontal and vertical joints:</u>				
48	Extra over brickwork for face brickwork in foundations. D02 13 D06 13 D18 11 D28 10 D41 14	m ²	61		
	TOTAL CARRIED TO BILL SUMMARY				
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Item		Unit	Quantity	Rate	Amount
	<u>FACE BRICKWORK COPINGS, SILLS, ETC</u> <u>'Ounu-Travertine' or equal approved FBS clay face brick header course copings, sills, etc. in class I mortar with Coprox or equal approved masonry waterproofing cement additive. Add 2.5kg Coprox waterproof cement additive for every 50kg of cement used in mortar mix (Cement to be 42.5N all-purpose cement) , pointed with recessed joints on all exposed faces:</u>				
49	110mm Coping on top of half brick walls. D02 7 D06 8 D18 7 D28 6 D41 8	m	36		
	<u>WATERPROOFING</u> <u>TRADE PREAMBLES</u> <u>Trade Preambles:</u> For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill. <u>SUPPLEMENTARY PREAMBLES</u> <u>Proprietary items or materials:</u> Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent. <u>Waterproofing:</u> Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs. <u>DAMPPROOFING OF WALLS AND FLOORS</u> <u>One layer 375 micron embossed polyethylene damp-proof course (SANS 952-1985 type B):</u>				
50	In walls. D02 4 D06 4 D18 3 D28 3 D41 4	m ²	18		
	<u>One layer of 250 micron Consol Plastics Gunplas Black waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape:</u>				
51	Under surface beds. D02 18 D06 20 D18 14 D28 9 D41 20	m ²	81		
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Item		Unit	Quantity	Rate	Amount
	<u>Two coats 'Duraflex' or equal waterproof coating and one coat 'ABEcote SF356' or equal approved:</u>				
52	On screeded floors.	m ²	41		
	D02 8 D06 10 D18 8				
	D28 5 D41 10				
53	On plastered walls.	m ²	114		
	D02 22 D06 26 D18 22				
	D28 18 D41 26				
54	Extra over for 'ecofelt' or equal approved membrane saturated with 'Draflex' or equal approved waterproofing not exceeding 300mm girth at internal or external corners.	m	40		
	D02 8 D06 8 D18 8				
	D28 8 D41 8				
	<u>WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC</u>				
	<u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc:</u>				
55	10 x 12mm In expansion joints in floors including raking out expansion joint filler as necessary.	m	79		
	D02 18 D06 16 D18 15				
	D28 11 D41 19				
	<u>PLASTERING</u>				
	<u>TRADE PREAMBLES</u>				
	<u>Trade Preambles:</u>				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>Proprietary items or materials:</u>				
	Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
	<u>SCREED</u>				
	<u>Cement screed with Coprox masonry waterproofing or equal approved waterproof cement additive. Add 2.5kg Coprox waterproof cement additive every 50 kg of cement used in screed mix wood floated, on concrete:</u>				
56	30mm Thick to floors and landing.	m ²	41		
	D02 8 D06 10 D18 8				
	D28 5 D41 10				
57	85 x 85mm Triangular fillets against walls, kerbs, etc.	m	57		
	D02 11 D06 13 D18 11				
	D28 9 D41 13				
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Item		Unit	Quantity	Rate	Amount
<u>INTERNAL PLASTER</u>					
<u>Cement plaster with Coprox masonry waterproofing or equal approved waterproof cement additive. Add 2.5kg Coprox waterproof cement additive for every 50kg of cement used in plaster mix steel trowelled, on brickwork:</u>					
58	On walls.	m ²	114		
	D02 22 D06 26 D18 22				
	D28 18 D41 26				
<u>PLUMBING AND DRAINAGE</u>					
<u>TRADE PREAMBLES</u>					
<u>Trade Preambles:</u>					
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>Proprietary items or materials:</u>					
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.					
<u>SOIL DRAINAGE</u>					
<u>Gratings, covers, etc:</u>					
59	600mm Diameter lockable masco polymer manhole cover and frame heavy duty D400 cast into concrete upstand, including approved galvanised locking bar and padlock.	No	6		
	D02 1 D06 2 D18 1				
	D28 1 D41 1				
60	Lifting key for manhole cover.	No	5		
	D02 1 D06 1 D18 1				
	D28 1 D41 1				
<u>EARTHWORKS</u>					
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SECTION NO. 4

SUPERSTRUCTURE

Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>SUPERSTRUCTURE</u>				
<u>Bill No. 1</u>				
<u>MASONRY</u>				
<u>Key:</u>	<u>Location Description:</u>			
D02	STAFF TOILET (02)			
D06	GRADE R TOILET (06)			
D18	FEMALE TOILET (18)			
D28	MALE TOILET (28)			
D41	M & F TOILET (41)			
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<u>TRADE PREAMBLES</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Proprietary items or materials:</u>				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
<u>BRICKWORK</u>				
<u>Sizes in descriptions:</u>				
Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick.				
<u>Hollow walls, etc:</u>				
Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.				
<u>Bagged and sealed walls:</u>				
Walls in two skins described as 'bagged and sealed' shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats 'Brixal' bitumen emulsion waterproofing coating.				
<u>Face bricks:</u>				
Bricks shall be ordered timeously to obtain uniformity in size and colour.				
<u>Pointing:</u>				
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.				
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Bill No. 1				
Masonry				

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Item		Unit	Quantity	Rate	Amount
<u>BRICKWORK IN SUPERSTRUCTURE</u>					
<u>Brickwork of NFP bricks in class II mortar:</u>					
1	Half brick walls.	m ²	27		
	D02 4 D06 6 D18 4				
	D28 5 D41 8				
2	Half brick walls in beam filling.	m ²	17		
	D02 4 D06 4 D18 3				
	D28 2 D41 4				
3	One brick walls.	m ²	70		
	D02 23 D06 10 D18 20				
	D28 3 D41 14				
4	One brick walls of two half brick skins with inner skin bagged and sealed.	m ²	254		
	D02 53 D06 53 D18 51				
	D28 39 D41 58				
<u>2,5mm Galvanised brick reinforcement:</u>					
5	75mm Wide reinforcement built in horizontally.	m	176		
	D02 30 D06 40 D18 27				
	D28 29 D41 50				
6	150mm Wide reinforcement built in horizontally.	m	1 271		
	D02 300 D06 247 D18 277				
	D28 164 D41 283				
<u>Turning pieces:</u>					
7	230mm Wide turning piece to lintels, etc.	m	43		
	D02 11 D06 8 D18 7				
	D28 5 D41 12				
<u>Galvanised hoop iron cramps, ties, etc:</u>					
8	30 x 1,6mm Roof tie 1,5m long with one end fixed to timber and other end built into brickwork.	No	70		
	D02 16 D06 14 D18 12				
	D28 10 D41 18				
9	30 x 1,6mm Cramp 500mm long with one end fixed to timber and other end built into brickwork.	No	76		
	D06 19 D41 57				
<u>Air bricks, etc:</u>					
10	229 x 152mm Terracotta vermin proof air brick. (Provisional)	No	40		
	D02 8 D06 8 D18 8				
	D28 8 D41 8				
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Item		Unit	Quantity	Rate	Amount
<u>FACE BRICKWORK</u>					
<u>'Qunu-Travertine' or equal approved FBS clay face bricks size 222 x 106 x 73mm, bedded, jointed in class I mortar and pointed with recessed horizontal and vertical joints:</u>					
11	Extra over brickwork for face brickwork.	m ²	683		
	D02 155 D06 129 D18 123 D28 96 D41 180				
12	Extra over brickwork to beamfilling for face brickwork.	m ²	17		
	D02 4 D06 4 D18 3 D28 2 D41 4				
13	Half brick walls pointed on both sides.	m ²	27		
	D02 4 D06 6 D18 4 D28 5 D41 8				
14	Fair raking cutting.	m	35		
	D02 7 D06 7 D18 7 D28 7 D41 7				
15	Fair splay cutting.	m	56		
	D02 15 D06 13 D18 12 D28 8 D41 8				
16	Extra over brickwork for brick-on-edge header course lintels one course high, pointed on both faces and 230mm soffit.	m	433		
	D02 401 D06 8 D18 7 D28 5 D41 12				
17	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	22		
	D02 6 D06 4 D18 4 D28 2 D41 6				
<u>FACE BRICKWORK COPINGS, SILLS, ETC</u>					
<u>'Qunu-Travertine' or equal approved FBS clay face brick header course copings, sills, etc., pointed with recessed joints on all exposed faces:</u>					
18	220mm Copings on top of one brick walls. (Provisional)	m	13		
	D02 4 D18 5 D41 4				
19	220mm Wide sill set sloping and slightly projecting.	m	28		
	D02 7 D06 5 D18 4 D28 4 D41 8				
20	110mm Copings on top of half brick walls with solid facebrick. (Provisional)	m	16		
	D02 2 D06 5 D18 2 D28 3 D41 4				
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Item					Unit	Quantity	Rate	Amount														
<u>SECTION NO. 4</u>																						
<u>SUPERSTRUCTURE</u>																						
<u>Bill No. 2</u>																						
<u>WATERPROOFING</u>																						
<table><tr><td><u>Key:</u></td><td><u>Location Description:</u></td></tr><tr><td>D02</td><td>STAFF TOILET (02)</td></tr><tr><td>D06</td><td>GRADE R TOILET (06)</td></tr><tr><td>D18</td><td>FEMALE TOILET (18)</td></tr><tr><td>D28</td><td>MALE TOILET (28)</td></tr><tr><td>D41</td><td>M & F TOILET (41)</td></tr><tr><td>I</td><td>ITEM</td></tr></table>									<u>Key:</u>	<u>Location Description:</u>	D02	STAFF TOILET (02)	D06	GRADE R TOILET (06)	D18	FEMALE TOILET (18)	D28	MALE TOILET (28)	D41	M & F TOILET (41)	I	ITEM
<u>Key:</u>	<u>Location Description:</u>																					
D02	STAFF TOILET (02)																					
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<u>TRADE PREAMBLES</u>																						
<u>Trade Preambles:</u>																						
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<u>SUPPLEMENTARY PREAMBLES</u>																						
<u>Proprietary items or materials:</u>																						
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.																						
<u>Waterproofing:</u>																						
Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs.																						
<u>WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC</u>																						
<u>Clear Neutral silicone sealant:</u>																						
1	10 x 10mm In joints between frames and facebrick walls.				m	113																
	D02 29	D06 19	D18 17																			
	D28 14	D41 34																				
<u>Clear silicone sealant applied in accordance with the manufacturers instructions:</u>																						
2	In joints between ceramic sanitary ware and face brickwork. (Provisional)				m	10																
	D02 3	D06 2	D18 2																			
	D28 1	D41 2																				
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Bill No. 2																						
Waterproofing																						

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Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>SUPERSTRUCTURE</u>				
<u>Bill No. 3</u>				
<u>ROOF COVERINGS</u>				
<u>Key:</u>	<u>Location Description:</u>			
D02	STAFF TOILET (02)			
D06	GRADE R TOILET (06)			
D18	FEMALE TOILET (18)			
D28	MALE TOILET (28)			
D41	M & F TOILET (41)			
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<u>TRADE PREAMBLES</u>				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Proprietary items or materials:</u>				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
<u>TROUGHED METAL SHEETING AND ACCESSORIES</u>				
<u>Supplementary Preambles:</u>				
IBR roof Sheeting When IBR roof sheets are end lapped the roof pitch should be taken into account. The minimum end laps for roof pitches in excess of 15° is 150mm and for other roofs a minimum of 250mm is recommended. End laps for side sheeting should be at least 100mm It is recommended that end and side laps on low pitch roofs are sealed to ensure watertightness In the case of pre-painted sheeting to colour can be specified on either side of the sheet.				
IBR sheeting shall be clearly marked on the reverse side in 1m intervals indicating thickness, material quality end coating thickness as set out below.				
Thickness & material quality		Coating		
Available paint system				
TOTAL CARRIED TO BILL SUMMARY				R
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Bill No. 3				
Roof Coverings				

Item	Unit	Quantity	Rate	Amount
0.40mm - ISQ300 Z160 Galvanised - 0.50mm - ISQ550 Z275 Galvanised - 0.58mm - ISQ300 Z275 Galvanised - 0.80mm - ISQ230 Z275 Galvanised - 0.50mm - ISQ550 Z275 Galvanised Chromadek 0.58mm - ISQ300 Z275 Galvanised Chromadek 0.80mm - ISQ230 Z275 Galvanised Chromadek 0.47mm - G550 AZ150 Zincalume - 0.53mm - G550 AZ150 Zincalume Colorbond				
Fixing of IBR roof sheeting Roof sheets shall be laid with one corrugation side lap with the narrow flute uppermost and shall be fixed through the crests of alternate flutes to steel purlins with 65mm Top Speed or Tex screws and to timber purlins with 90mm Tex or Top Speed screws. All fasteners shall incorporate 26mm diameter bonded washers For vertical cladding (side cladding) it is recommended that the broad flutes are fixed externally with the main and side lap fasteners in the web of the flutes. Side cladding shall be fixed with 25mm Tex or Top Speed screws and all fasteners shall incorporate 26mm diameter bonded washers Zincalume and Colorbond sheets must be fixed using the following fasteners by Buildex Industries: Metaltex - Climaseal 3 for steel purlins and Timbertex Zacs 4 for timber purlins. Flashings and accessories Flashings and accessories are to be manufactured and finished in the same material as the roof sheeting in various thicknesses and sizes. Standard sizes are available but any size and shape can be supplied Flashings shall be approved by Clotan Steel (Pty) Ltd and fixed in accordance with manufacturer's specifications. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the trough in order to prevent any penetration of wind-driven water. The trough shall be bent down at the eaves end to form a drip. Bullnoses and centre cranks Bullnosing and centre cranking of a profiled sheet incorporates lateral rib indentations pressed in at an uniform distance of 25mm. Standard bullnoses are made with the narrow flute uppermost and the bend away from the angular inclination. Reverse bullnoses are made with the bend into the narrow flute. Bullnoses and cranks can be at the end of a sheet or at any position along the length. Crank curving IBR and Widespan material can be crank curved with the same process used for bullnosing but with manual handling and with an increased distance between indentations in order to achieve the larger radius. Guarantee All material will carry a manufacturer's guarantee and an approved contractor shall lay sheeting and accessories in strict accordance with the manufacturer's specifications.				
TOTAL CARRIED TO BILL SUMMARY			R	
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Roof Coverings				

Item		Unit	Quantity	Rate	Amount
	Erection, handling and storage Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duckboards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way shall be replaced The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity The contractor shall ensure that all materials used on site are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will no be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction Cleaning, etc All debris, swarf, etc. arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners and sealants, mandrels from pop rivets, off-cuts of flashings and sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc. <u>IBR 0.53mm Thick Z200 spelter galvanized steel roof sheeting and accessories 'Colour to be confirmed' fixed to timber purlins at 955mm centres:</u>				
1	Roof covering with pitch not exceeding 25 degrees, in transportable lengths not exceeding 20m. D02 34 D06 31 D18 28 D28 20 D41 38 <u>0.53mm Thick flashings and accessories to match roof sheeting and fixed in strict accordance with manufacturer's instructions:</u>	m ²	151		
2	Apex capping 225mm girth and three times bent along length. D02 8 D06 7 D18 7 D28 5 D41 9	m	36		
3	Ridge closer or broad flute closer to suit profile. D02 8 D06 7 D18 7 D28 5 D41 9	m	36		
4	Eaves closer or narrow flute closer to suit profile. D02 8 D06 7 D18 7 D28 5 D41 9	m	36		
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Roof Coverings					

Item		Unit	Quantity	Rate	Amount
5	Hole for 110mm diameter pipe including 450 x 450mm square flash around 110mm diameter vent pipe.	No	17		
	D02 3 D06 4 D18 3 D28 3 D41 4				
	<u>ROOF AND WALL LINING AND INSULATION</u>				
	<u>Double-sided 'Sisalation® FR 430' or equal approved polyethylene bubblefold insulation laminated on one side with aluminium foil and with white polyethylene coating on other side:</u>				
6	4mm Thick insulation laid taut over timber rafters and fixed concurrent with tiling battens, purlins, etc.	m²	97		
	D02 23 D06 21 D18 15 D28 12 D41 26				
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Roof Coverings

Item	Unit	Quantity	Rate	Amount
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<u>SUPERSTRUCTURE</u>				
<u>Bill No. 4</u>				
<u>CARPENTRY AND JOINERY</u>				
<u>Key:</u>	<u>Location Description:</u>			
D02	STAFF TOILET (02)			
D06	GRADE R TOILET (06)			
D18	FEMALE TOILET (18)			
D28	MALE TOILET (28)			
D41	M & F TOILET (41)			
I	ITEM			
<u>TRADE PREAMBLES</u>				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Proprietary items or materials:</u>				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
<u>Particle board:</u>				
Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type.				
<u>Joinery:</u>				
Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.				
<u>Fixing:</u>				
Items described as nailed shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.				
<u>Decorative laminate finish:</u>				
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish.				
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Carpentry And Joinery				

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Item		Unit	Quantity	Rate	Amount
	Gum pole structural units shall be in accordance with the following SABS Specifications: SABS 457-1982: Wooden poles, droppers, guard rail posts and spacer blocks. Units with defects exceeding the maximum permissible defects as listed in table 1 of SABS 457, shall be remove from site and shall under no circumstances be used in any part of the structure. State diameters are top (thin) end diameters in all cases. <u>ROOF CONSTRUCTION</u> <u>Sawn softwood grade 4:</u>				
1	38 x 114mm Wall plates. (Provisional)	m	64		
	D02 15 D06 13 D18 11 D28 8 D41 17				
	<u>Wrought softwood grade 4:</u>				
2	38 x 38mm Fixing batten. (Provisional)	m	144		
	D02 32 D06 30 D18 27 D28 19 D41 36				
3	50 x 76mm Purlins. (Provisional)	m	218		
	D02 49 D06 45 D18 40 D28 29 D41 55				
4	50 x 76mm Trimmer batten. (Provisional)	m	36		
	D02 8 D06 7 D18 7 D28 5 D41 9				
5	38 x 152mm Rafters in lengths exceeding 3,9m and not exceeding 6,6m. (Provisional)	m	145		
	D02 33 D06 29 D18 25 D28 21 D41 37				
	<u>ROOF SUNDRIES</u>				
	<u>Sundries:</u>				
6	38 x 38mm Blocking piece 150mm long. (Provisional)	No	70		
	D02 16 D06 14 D18 12 D28 10 D41 18				
7	Shaped end to 50 x 152mm sawn timber. (Provisional)	No	86		
	D02 32 D06 14 D18 12 D28 10 D41 18				
8	Hurricane clip fixed using Permfix nails or bolts through pre-drilled holes. (Provisional)	No	70		
	D02 16 D06 14 D18 12 D28 10 D41 18				
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Bill No. 4					
Carpentry And Joinery					

Item		Unit	Quantity	Rate	Amount
	<u>EAVES, VERGES, ETC.</u>				
	<u>Medium density plain fibre-cement fascial and barge boards:</u>				
9	12 x 225mm Fascia and barge boards, including aluminium H-profile joiners, etc.	m	36		
	D02 8 D06 7 D18 7 D28 5 D41 9				
10	85 x 275 x 6mm Barge boards fixed to roof timbers including aluminium H-profile joiners, etc.	m	77		
	D02 16 D06 16 D18 15 D28 13 D41 17				
	<u>FRAMED DOORS, ETC</u>				
	<u>Wrought meranti doors:</u>				
11	44mm Framed batten door 813 x 1832mm high comprising of 110 x 44mm top rail and stiles, 150 x 44mm midrail and brace and 220 x 44mm bottom ledge filled in with 22 x 70mm V-jointed board all complete as per type Door 4 attached to these Bills of Quantities. (D4)	No	10		
	D02 3 D18 2 D28 1 D41 4				
12	44mm Framed batten door 813 x 2032mm high comprising of 110 x 44mm top rail and stiles, 150 x 44mm midrail and brace and 220 x 44mm bottom ledge filled in with 22 x 70mm V-jointed board all complete as per type Door 1 attached to these Bills of Quantities. (D1)	No	6		
	D02 2 D18 1 D28 1 D41 2				
13	44mm Framed batten door 900 x 1000mm high complete as per type Door 3 attached to these Bills of Quantities. (D3)	No	3		
	D06 3				
14	44mm Framed batten door 950 x 2032mm high comprising of 110 x 44mm top rail and stiles, 150 x 44mm midrail and brace and 220 x 44mm bottom ledge filled in with 22 x 70mm V-jointed board all complete as per type Door 2 attached to these Bills of Quantities. (D2)	No	3		
	D06 2 D18 1				
	<u>FRAMED FRAMES, MULLIONS, TRANSOMS, ETC</u>				
	<u>Wrought hardwood:</u>				
15	108 x 70mm Rebated frames, bolted with and including masonry bolts at maximum 500mm centres.	m	85		
	D02 22 D06 10 D18 18 D28 9 D41 26				
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<u>SECTION NO. 4</u>					
<u>SUPERSTRUCTURE</u>					
<u>Bill No. 5</u>					
<u>IRONMONGERY</u>					
	<u>Key:</u>	<u>Location Description:</u>			
	D02	STAFF TOILET (02)			
	D06	GRADE R TOILET (06)			
	D18	FEMALE TOILET (18)			
	D28	MALE TOILET (28)			
	D41	M & F TOILET (41)			
	I	ITEM			
<u>TRADE PREAMBLES</u>					
<u>Trade Preambles:</u>					
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>Proprietary items or materials:</u>					
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.					
<u>Finishes to ironmongery:</u>					
Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated.					
<u>HINGES, FLOOR SPRINGS, BOLTS, PANIC BOLTS, ETC</u>					
<u>Hinges:</u>					
1	100 x 75mm Nylon insert brass butt hinges (HMP REF.H32R).		Pairs	32	
	D02 8	D06 6 D18 6			
	D28 3	D41 9			
2	'E1511 Erebus' Heavy duty satin chrome adjustable roller catch.		No	3	
	D06 3				
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Ironmongery					

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Item		Unit	Quantity	Rate	Amount
	<u>EN-SUITE LOCKS</u>				
	<u>En-suite locks:</u>				
3	Set of 'Union CZ682-24SC' or equal approved radius lever handles on back plate and one 'Union 2277-78MMSS' or equal approved three lever sash mortice lock set.	No	9		
	D02 2 D06 2 D18 2				
	D28 1 D41 2				
4	'Union CZ80941SC' or equal approved WC indicator bolt.	No	10		
	D02 3 D18 2 D28 1				
	D41 4				
	<u>Padlocks:</u>				
5	50mm Heavy duty padlock with brass body, stainless steel schackle and 5 pin tumbler.	No	8		
	D02 2 D06 1 D18 2				
	D28 1 D41 2				
	<u>HANDLES</u>				
	<u>Handles:</u>				
6	'Dormakaba DPH301B' or equal approved stainless steel straight tubular pull handle flange fixing back-to-back.	Pairs	3		
	D06 2 D18 1				
7	'Dormakaba' equal approved stainless steel D- pull handle 152 x 19mm straight BT fixing back-to-back.	Pairs	3		
	D06 3				
	<u>PUSH PLATES AND KICK PLATES</u>				
	<u>0,9mm Thick satin finished stainless steel plates countersunk screwed along edges at not exceeding 200mm centres:</u>				
8	950 x 200mm high kick plate. (Provisional)	No	8		
	D02 2 D06 1 D18 2				
	D28 1 D41 2				
	<u>LETTERS, NAMEPLATES, ETC</u>				
	<u>3mm thick white perspex name plate with Century Gothic font lettering 30mm high black-coloured engraved letters or numbers, twice holed for and including fixing horizontally to timber door with 4 19mm chrome plated dome-headed self-tapping screws:</u>				
9	'BOYS' signplate, plugged.	No	1		
	D28 1				
10	'GIRLS' signplate, plugged.	No	1		
	D18 1				
11	'MALE' signplate, plugged.	No	2		
	D02 1 D41 1				
	TOTAL CARRIED TO BILL SUMMARY			R	
	Section No. 4				
	Bill No. 5				
	Ironmongery				

Item		Unit	Quantity	Rate	Amount
12	'FEMALE' signplate, plugged. D02 1 D41 1	No	2		
13	'EDUCATOR' signplate, plugged. D02 2	No	2		
14	'LEARNER' signplate, plugged. D18 1 D28 1 D41 2	No	4		
15	'GRADE R' signplate, plugged. D06 1	No	1		
16	'DISABLED' signplate, plugged. D18 1	No	1		
17	150 x 150 x 3mm 'Wheelechair' pictogram signplate, plugged. D06 1 D18 1	No	2		
18	150 x 150 x 3mm 'Male' pictogram signplate, plugged. D02 1 D28 1 D41 1	No	3		
19	150 x 150 x 3mm 'Female' pictogram signplate, plugged. D02 1 D18 1 D41 1	No	3		
<u>BATHROOM FITTINGS</u>					
<u>Grade 304 18/10 brushed stainless steel grab rails:</u>					
20	32mm outside diameter x 1,6mm thick tubular wall mounted side stainless steel grab rail 1,06m girth with two 45 degree and two 90 degree formed bends and each end fitted with 80mm diameter x 5mm thick flange welded on and four times countersunk holed for and plugged and screwed to wall with stainless steel crews. D06 1 D18 1	No	2		
21	32mm Diameter Code 359870 straight rear grab rail around cistern, plugged and screwed with stainless steel screws. D06 1 D18 1	No	2		
22	32mm outside diameter x 1,6mm thick tubular wall mounted around cistern back stainless steel grab rail 1,23m girth with two 90 degree formed bends and each end fitted with 80mm diameter x 5mm thick flange welded on and four times countersunk holed for and plugged and screwed to wall with stainless steel crews. D06 1 D18 1	No	2		
<u>Toilet roll holders:</u>					
23	'Halcast' (366S) or equal approved chrome plated thief proof roll holder, plugged to wall. D02 3 D06 4 D18 3 D28 1 D41 4	No	15		
TOTAL CARRIED TO BILL SUMMARY				R	
Section No. 4					
Bill No. 5					
Ironmongery					

Item		Unit	Quantity	Rate	Amount
	<u>Sanitary bins:</u>				
24	12L Satin ABS plastic N-SBIN-12-SA SHE Bin size 463 x 140 x 480mm, floor standing loose. (Provisional)	No	9		
	D02 2 D06 2 D18 2				
	D28 1 D41 2				
	<u>SUNDRIES</u>				
	<u>Sundries:</u>				
25	'DWJ No 1' or equal approved concealed fixed rubber door stop plugged.	No	22		
	D02 5 D06 5 D18 4				
	D28 2 D41 6				
26	'Dormakaba DHC-SS-030-A' or equal approved Stainless steel hat and coat hook.	No	10		
	D02 3 D18 2 D28 1				
	D41 4				
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Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>SUPERSTRUCTURE</u>				
<u>Bill No. 6</u>				
<u>METALWORK</u>				
<u>Key:</u>	<u>Location Description:</u>			
D02	STAFF TOILET (02)			
D06	GRADE R TOILET (06)			
D18	FEMALE TOILET (18)			
D28	MALE TOILET (28)			
D41	M & F TOILET (41)			
I	ITEM			
<u>TRADE PREAMBLES</u>				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Proprietary items or materials:</u>				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
<u>Descriptions:</u>				
Descriptions of bolts shall be deemed to include nuts and washers.				
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortises in brickwork or concrete.				
Metalwork described as holed for bolt(s) shall be deemed to exclude the bolts unless otherwise described.				
Doors and windows shall comply with AAAMSA design criteria.				
Glazing shall comply with SAGGA regulations. Glass shall be of the type of glass as shown on the window and door schedules and drawings appended to these Bills of Quantities and as described in the Bills of Quantities. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings.				
Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed.				
For purpose made windows and doors, refer to drawings annexed to these Bills of Quantities.				
TOTAL CARRIED TO BILL SUMMARY			R	
Section No. 4				
Bill No. 6				
Metalwork				

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Item	Unit	Quantity	Rate	Amount
The following certificates shall be provided prior to commencement of site work: 1. A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product. 2. A Certificate of Conformance confirming that anodising or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively1861 3. A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process. 4. A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked. 5. A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against delamination and colour degradation for a period of not less than five years. <u>HOT DIPPED GALVANISED GATES, SCREENS, ETC</u> <u>The following in hot dipped galvanised steel gates and frame to brickwork as per gate G1 attached to these Bills of Quantities:</u>				
1	No	7		
Single gate 900 x 2050mm high comprising of 25 x 25 x 2,0mm square hollow section frame and gate surround, all filled in with 12mm diameter steel rod at 109mm centres with and including and fitted with a pair of hinges as detailed welded to post and with lockable sliding bolt with keep in brickwork as Detail G1 attached to these Bills of Quantities.				
D02 2 D06 1 D18 1 D28 1 D41 2				
2	No	1		
Single gate 1000 x 2050mm high comprising of 25 x 25 x 2,0mm square hollow section frame and gate surround, all filled in with 12mm diameter steel rod at 109mm centres with and including and fitted with a pair of hinges as detailed welded to post and with lockable sliding bolt with keep in brickwork as Detail G2 attached to these Bills of Quantities.				
D18 1				
3	No	32		
8mm Diameter galvanised expansion bolts.				
D02 8 D06 4 D18 8 D28 4 D41 8				
TOTAL CARRIED TO BILL SUMMARY			R	
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Bill No. 6				
Metalwork				

Item	Unit	Quantity	Rate	Amount
<u>ALUMINIUM WINDOWS</u>				
<u>Powder coated aluminium windows 'Bronze' with stainless steel concealed friction stays, clip on glazing beads, sanoprene seals, glazed with 6,38mm white translucent safety glass, plugged to brickwork or concrete:</u>				
4 Purpose made window top hung opening out 600 x 600mm high to be installed complete as per W1 attached to these Bills of Quantities.	No	47		
D02 12 D06 8 D18 7				
D28 6 D41 14				
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Item		Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>					
<u>SUPERSTRUCTURE</u>					
<u>Bill No. 7</u>					
<u>PLASTERING</u>					
	<u>Key:</u>	<u>Location Description:</u>			
	D02	STAFF TOILET (02)			
	D06	GRADE R TOILET (06)			
	D18	FEMALE TOILET (18)			
	D28	MALE TOILET (28)			
	D41	M & F TOILET (41)			
	I	ITEM			
<u>TRADE PREAMBLES</u>					
<u>Trade Preambles:</u>					
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>Proprietary items or materials:</u>					
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.					
<u>GRANOLITHIC</u>					
<u>Untinted granolithic, on concrete:</u>					
1	30mm Thick on floors and landings.		m ²	88	
	D02 20	D06 19	D18 14		
	D28 12	D41 23			
2	Coved skirtings 75mm high to face brickwork.		m	165	
	D02 39	D06 35	D18 28		
	D28 18	D41 45			
<u>CORNER PROTECTORS, DIVIDING STRIPS, ETC</u>					
<u>Corner protectors, dividing strips, etc:</u>					
3	30 x 4mm Flat section brass water bar. (Provisional)		m	8	
	D02 2	D06 1	D18 2		
	D28 1	D41 2			
TOTAL CARRIED TO SECTION SUMMARY					R
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Bill No. 7					
Plastering					

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Item	Unit	Quantity	Rate	Amount														
<u>SECTION NO. 4</u>																		
<u>SUPERSTRUCTURE</u>																		
<u>Bill No. 8</u>																		
<u>PLUMBING AND DRAINAGE</u>																		
<u>(PROVISIONAL)</u>																		
<table><tr><td><u>Key:</u></td><td><u>Location Description:</u></td></tr><tr><td>D02</td><td>STAFF TOILET (02)</td></tr><tr><td>D06</td><td>GRADE R TOILET (06)</td></tr><tr><td>D18</td><td>FEMALE TOILET (18)</td></tr><tr><td>D28</td><td>MALE TOILET (28)</td></tr><tr><td>D41</td><td>M & F TOILET (41)</td></tr><tr><td>I</td><td>ITEM</td></tr></table>					<u>Key:</u>	<u>Location Description:</u>	D02	STAFF TOILET (02)	D06	GRADE R TOILET (06)	D18	FEMALE TOILET (18)	D28	MALE TOILET (28)	D41	M & F TOILET (41)	I	ITEM
<u>Key:</u>	<u>Location Description:</u>																	
D02	STAFF TOILET (02)																	
D06	GRADE R TOILET (06)																	
D18	FEMALE TOILET (18)																	
D28	MALE TOILET (28)																	
D41	M & F TOILET (41)																	
I	ITEM																	
<u>TRADE PREAMBLES</u>																		
<u>Trade Preambles:</u>																		
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.																		
<u>SUPPLEMENTARY PREAMBLES</u>																		
<u>Proprietary items or materials:</u>																		
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.																		
<u>'Polycop' polypropylene pipes:</u>																		
Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with 'Fast-fuse' heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated.																		
Pipes shall be firmly fixed to walls etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.																		
All pipe diameters are nominal external.																		
<u>'Polylink' polypropylene pipes:</u>																		
Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'SupraClamp' running joints.																		
Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.																		
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double X joint couplers.																		
Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.																		
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Plumbing And Drainage (provisional)																		

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Item	Unit	Quantity	Rate	Amount
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reduces shall be of sufficient overall length to accommodate same. All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions. All pipe diameters are nominal external. <u>Concrete pipes:</u> Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings. <u>Vitrified clay pipes etc.:</u> Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid. <u>uPVC pipes and fittings:</u> Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed. <u>uPVC pressure pipes and fittings:</u> Pipes for water supply shall be of the class stated. Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings. Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints. <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>Fixing of pipes:</u> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level				
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Item	Unit	Quantity	Rate	Amount
<u>Lead pipes and traps:</u> All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel. <u>Reducing fittings:</u> Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc. will be entertained. <u>Wire gratings:</u> Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings. <u>Septic tanks:</u> Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc. all in accordance with the manufacturer's instructions. <u>Exposed concrete surfaces:</u> Exposed surfaces of concrete storm water channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc. shall be finished smooth with plaster. <u>Excavations:</u> No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling. 'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'. <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. Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium pressure pipelines LD : Sewers LE : Storm water drainage Pipe trenches etc. shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB. <u>Flush pans:</u> Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.				
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Item	Unit	Quantity	Rate	Amount
<u>Stainless steel basins, sinks, wash troughs, urinals, etc.:</u> Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable. <u>Waste unions:</u> Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings. <u>Steel sectional water tanks:</u> Tanks shall comply with SABS CKS 114. <u>'Densyl' petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd:</u> Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described. Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, 'Layflat' sheeting, securing of same, etc. Prices for wrapping of pipes shall include for all work as described to couplings in the length. <u>General:</u> Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete (adaptors for joints to PVC pipes, etc. are given separately). Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends. Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc. shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site. Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc. and to steel pipes (adaptors for connections to copper pipes, etc. are given separately). Descriptions of WC pans, slop hoppers, etc. shall be deemed to include for joints to soil pipes (pan connectors are separately measured).				
TOTAL CARRIED TO BILL SUMMARY			R	
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Plumbing And Drainage (provisional)				

Item		Unit	Quantity	Rate	Amount
<u>RAINWATER DISPOSAL</u>					
<u>0,90mm Aluminium guttering coated internally and externally with 'ColourTech G4' marble white, with matching splash plate including cut and mitred angles covered with a mitre strip externally, stop ends crimped and all sealed on the inside with silicone sealer, secured to fibre cement fascia with 20 x 3mm internal hanger brackets at 600mm centres using aluminium peeled rivets, including expanded aluminium mesh leaf guard set over gutter all installed in strict accordance with the manufacturers instructions:</u>					
1	125 x 85mm Box profile eaves gutters.	m	36		
	D02 8 D06 7 D18 7 D28 5 D41 9				
2	Extra over 125 x 85mm box profile eaves gutter for stop end.	No	10		
	D02 2 D06 2 D18 2 D28 2 D41 2				
3	Extra over 125 x 85mm box profile eaves gutter for outlet for 75 x 100mm pipe.	No	8		
	D02 2 D06 1 D18 2 D28 1 D41 2				
4	75 x 100mm Rainwater pipes.	m	22		
	D02 5 D06 3 D18 5 D28 3 D41 6				
5	Extra over 75 x 100mm rainwater pipe for bend.	No	16		
	D02 4 D06 2 D18 4 D28 2 D41 4				
<u>SANITARY FITTINGS</u>					
<u>'Atlas Plastics' or equal approved rust and corrosion resistant, UV-resistant polyethylene fittings:</u>					
6	Injection moulded bambi longdrop pan with Bambi Lid, foot piece and fitted into VIP Flange cast into concrete slab of pit in strict accordance with the manufacturers instructions.	No	7		
	D06 3 D41 4				
7	Rotomoulded polyethylene VIP 200 pit pedestal complete with flap and incorporated seat, size 387 x 518mm high, foot piece and fitted into VIP Flange cast into concrete slab of pit. Including chalking etc in strict accordance with the manufacturers instructions.	No	3		
	D18 2 D28 1				
TOTAL CARRIED TO BILL SUMMARY				R	
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Item		Unit	Quantity	Rate	Amount
8	Rotomoulded polyethylene VIP 450 pit pedestal complete with flap and incorporated scat, size 364 x 425mm high, foot piece and fitted into VIP Flange cast into concrete slab of pit. Including chalking etc in strict accordance with the manufacturers instructions.	No	5		
	D02 3 D06 1 D18 1 <u>'Cobra Watertech' or equal approved wash hand basins and pedestals:</u>				
9	Welcome small white vitreous china rounded wall hung basin (code: COB-709000WH) 400 x 320mm with one pre-punched tapholes on the right hand side, bolted to wall with two 8mm bolts (code 8448Z0) to manufacturer's specification.	No	2		
	D06 1 D18 1 <u>'Vaal Sanitaryware' or equal approved wash hand basins and pedestals:</u>				
10	Hibiscus white vitreous china rounded wall hung basin (code: VAA-702303WG) 510 x 405mm with three semi-punched tapholes, integrated overflow, and chain stay hole through centre semi-punched taphole, bolted to wall with two 8mm bolts (code 8448Z0) to manufacturer's specification.	No	12		
	D02 3 D06 2 D18 2 D28 2 D41 3 <u>'Vaal Sanitaryware' or equal approved urinals:</u>				
11	Lavatera white vitreous china waterless wall hung bowl urinal (code: VAA-705428WH) 610 x 385mm, supplied with waste and two hanger brackets to manufacture's instruction.	No	1		
	D02 1 <u>'Lecico Bathrooms' or equal approved urinal divisions:</u>				
12	Atlas white vitreous china wall mounted urinal separator (code: ATLURISEPO63OUE) 150 x 630 x 320mm, supplied with fixation bolt set to manufacture's instruction.	No	1		
	D02 1 <u>'Franke Grade 304 (18/10) or equal approved stainless steel urinal:</u>				
13	Franke Model TU101-1830R flat back stainless steel school trough urinal wall and floor mounted. manufactured from Grade 304 (18/10) stainless steel, 0,9 mm gauge. Urinal to be supplied with a concealed sparge pipe and a 22 mm inlet with chrome plated conex fitting for connecting to water inlet (connection fitting not supplied). Urinal to include a tiling key to sides and rear walls. The back to be fully sound deadened with vermin proof bitumastic material. Outlet to be situated on the left or right of the urinal with a recess for 40 mm chrome plated waste outlet to manufacturer's instruction.	No	2		
	D28 1 D41 1				
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Plumbing And Drainage (provisional)					

Item		Unit	Quantity	Rate	Amount
<u>WASTE UNIONS, ETC</u>					
<u>Waste unions, etc:</u>					
14	'Cobra Watertech 40mm (code 316)' or equal approved chrome plated unslopped basin waste union.	No	14		
	D02 3 D06 3 D18 3				
	D28 2 D41 3				
<u>TRAPS, ETC</u>					
<u>uPVC:</u>					
15	40mm Rubber 'P' trap.	No	13		
	D02 3 D06 3 D18 2				
	D28 2 D41 3				
<u>'Cobra Watertech' or equal approved:</u>					
16	40mm Chrome plated deep re-seal bottle trap (code 360CP).	No	2		
	D06 1 D18 1				
<u>TAPS, VALVES, ETC</u>					
<u>Brass:</u>					
17	15mm Stopcock.	No	5		
	D02 1 D06 1 D18 1				
	D28 1 D41 1				
18	22mm Stopcock.	No	9		
	D02 2 D06 2 D18 2				
	D28 1 D41 2				
<u>'Cobra Watertech' or equal approved:</u>					
19	Chrome plated '503-21B' or equal approved elbow action pillar-tap.	No	2		
	D06 1 D18 1				
20	Chrome plated 'KM2-200' wall type demand tap with non-hold open self-closing mechanism and flow controller.	No	12		
	D02 3 D06 2 D18 2				
	D28 2 D41 3				
<u>SANITARY PLUMBING</u>					
<u>Class 34 uPVC pipes:</u>					
21	40mm Pipes.	m	24		
	D02 5 D06 5 D18 7				
	D28 2 D41 5				
22	50mm Pipes.	m	3		
	D02 2 D41 1				
23	110mm Vent pipes fixed to walls.	m	64		
	D02 12 D06 16 D18 12				
	D28 8 D41 16				
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Item		Unit	Quantity	Rate	Amount
	<u>Extra over class 34 uPVC pipes for fittings:</u>				
24	40mm Bend. D02 2 D06 5 D18 4 D28 2 D41 4	No	17		
25	50mm Bend. D02 2 D41 2	No	4		
26	40mm Access bend. D02 1 D06 1 D18 1 D28 1 D41 1	No	5		
27	50mm Access bend. D02 1 D41 1	No	2		
	<u>Ventilators:</u>				
28	250mm Polycarbonate 'Turbo Ventura' ventilator with 110mm diameter throat fixed to top of 110mm vent pipe (vent pipe elsewhere measured). D02 3 D06 4 D18 3 D28 2 D41 4	No	16		
	<u>Fly screens:</u>				
29	Plastic or copper wire gauze fly screen glued to top of 110mm uPVC pipe. D02 3 D06 4 D18 3 D28 2 D41 4	No	16		
	<u>Testing:</u>				
30	Testing waste pipe system. I 1	Item			
	<u>WATER SUPPLIES</u>				
	<u>Polycop pipes:</u> Pipes shall be class 10.				
	<u>Fixing of pipes:</u> Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.				
	<u>Polycop pipes chased in walls:</u> Where pipes have been chased in walls, the price for making good of plaster and paint etc shall be deemed to be included in the description of pipe chased in walls.				
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Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 4</u>				
<u>SUPERSTRUCTURE</u>				
<u>Bill No. 9</u>				
<u>PAINTWORK</u>				
<u>Key:</u>	<u>Location Description:</u>			
D02	STAFF TOILET (02)			
D06	GRADE R TOILET (06)			
D18	FEMALE TOILET (18)			
D28	MALE TOILET (28)			
D41	M & F TOILET (41)			
I	ITEM			
<u>TRADE PREAMBLES</u>				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
<u>SUPPLEMENTARY PREAMBLES</u>				
<u>Proprietary items or materials:</u>				
Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Principal Agent.				
<u>SABS Specifications:</u>				
Matt or eggshell decorative paint for interior works : SABS 515				
High gloss enamel paint : SABS 630 Grade I				
Oil gloss enamel paint : SABS 631				
Primers for wood for external work : SABS 678 Type I				
Primers for wood for internal work : SABS 678 Type III				
Zink chromate primers for steel : SABS 679 Type I				
Undercoats for paints (except emulsion paint) : SABS 681 Type I				
Aluminium paint : SABS 682 Grade II				
Roof paints : SABS 683 Type B (Oil) SABS 940 (Emulsion)				
Structural steel paint : SABS 684 Type B				
Wash primer (metal etch) : SABS 723				
Varnish for interior use : SABS 887 Type I				
Emulsion paints : SABS 1586				
TOTAL CARRIED TO BILL SUMMARY			R	
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Item		Unit	Quantity	Rate	Amount
	<u>Colours, etc:</u> Unless otherwise described all paintwork shall be deemed to have a colour value in excess of 7 on the Munsell system in accordance with SANS 1091. <u>ON uPVC SURFACES</u> <u>Prepare and apply two coats of black PVA paint in strict accordance with manufacturer's instructions:</u> 1 On vent pipes, etc. D02 8 D06 11 D18 8 D28 6 D41 11 <u>ON FIBRE-CEMENT BOAD SURFACES</u> <u>Prepare and apply one coat zinc chromate to nail heads and H-spline strips, one coat plaster primer (PP700), stop and apply two coats of Superior Low Sheen (PEM 100/TLS) in strict accordance with manufacturer's instructions:</u> 2 On fascias, bargeboards, etc. D02 15 D06 15 D18 14 D28 12 D41 17 <u>ON WOOD SURFACES</u> <u>Two coats of oil wood primer in strict accordance with manufacturer's instructions:</u> 3 Backs of frames, linings, etc. not exceeding 300mm wide. D02 20 D06 17 D18 18 D28 9 D41 21 <u>Stop, fill, sand down and prepare wood surfaces and apply one coat primer for wood, one coat of universal undercoat and two coats of matt enamel paint in strict accordance with manufacturer's instructions:</u> 4 On doors. D02 19 D06 13 D18 12 D28 8 D41 23 5 On door frames. D02 5 D06 4 D18 5 D28 2 D41 7 <u>Prepare and apply two coats of carbolineum in strict accordance with manufacturer's instructions:</u> 6 On roof timbers. (Provisional) D02 17 D06 15 D18 11 D28 10 D41 19 7 On roof timbers at eaves and verges. (Provisional) D02 12 D06 11 D18 11 D28 7 D41 13 TOTAL CARRIED TO BILL SUMMARY Section No. 4 Bill No. 9 Paintwork				
				R	

Item				Unit	Quantity	Rate	Amount
8	On wall plate. (Provisional)			m ²	11		
	D02	2	D06	2	D18	3	
	D28	1	D41	3			
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3	ROOF COVERINGS	65
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5	IRONMONGERY	75
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7	PLASTERING	80
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SECTION NO. 5

EXTERNAL WORKS (PROVISIONAL)

Item		Unit	Quantity	Rate	Amount
	<u>SECTION NO. 5</u>				
	<u>EXTERNAL WORKS (PROVISIONAL)</u>				
	<u>Bill No. 1</u>				
	<u>SITE CLEARANCE, BULK EARTHWORKS AND GRASSING</u>				
	<u>TRADE PREAMBLES</u>				
	<u>Trade Preambles:</u>				
	For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill.				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	<u>General note:</u>				
	Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item.				
	<u>SITE CLEARANCE, ETC</u>				
	<u>Site clearance:</u>				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m ²	950		
2	Stripping average 200mm thick layer of top soil and stockpiling on site.	m ²	950		
	<u>BULK EXCAVATION</u>				
	<u>Open face excavation in earth over sloping site:</u>				
3	Open face excavation.	m ³	850		
	<u>Extra over bulk excavation in earth for excavation in:</u>				
4	Soft rock.	m ³	213		
5	Hard rock.	m ³	128		
	<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>				
6	Off site to a dumping site to be found by the Contractor.	m ³	164		
	TOTAL CARRIED TO BILL SUMMARY			R	
	Section No. 5				
	Bill No. 1				
	Site Clearance, Bulk Earthworks And Grassing				

Item		Unit	Quantity	Rate	Amount
	<u>EARTH FILLING, ETC</u>				
	<u>Selected filling with material from the excavations compacted to a density of at least 93% Mod. AASHTO maximum density:</u>				
7	Over site.	m ³	850		
	<u>Filling with G7 material in accordance with SABS 1200 DM, material supplied and carted onto site by the Contractor, compacted to a density of at least 93% Mod. AASHTO maximum density:</u>				
8	Over site in platforms.	m ³	64		
	<u>Filling with G5 material in accordance with SABS 1200 DM, material supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:</u>				
9	Over site in platforms.	m ³	64		
	<u>Compaction of surface:</u>				
10	Compaction of ground surface under floors, etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density.	m ²	950		
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>				
	<u>Keeping excavations free of water:</u>				
11	Keeping excavations free of all water other than subterranean water.	Item			
	<u>TESTS</u>				
	<u>Prescribed density tests on filling:</u>				
12	Modified AASHTO Density test.	No	11		
	<u>GRASSING</u>				
	<u>Ground preparation:</u>				
13	Cultivation and preparation of areas to be planted.	m ²	260		
	<u>Topsoil, compost, lime and fertilizer:</u>				
14	Topsoil obtained from prescribed stock piles on site in plant beds, grassed areas and holes for trees, shrubs, etc.	m ³	26		
15	Topsoil supplied by the Contractor in plant beds, grassed areas and holes for trees, shrubs, etc.	m ³	13		
	TOTAL CARRIED TO BILL SUMMARY			R	
	Section No. 5				
	Bill No. 1				
	Site Clearance, Bulk Earthworks And Grassing				

Item		Unit	Quantity	Rate	Amount
16	Fertilize garden soil with 3:2:1 super phosphate spread at a rate of 1kg/10m2 including working evenly into top 20mm depth of soil.	m ²	260		
	<u>Grassing of roots in rows at 500mm centres both ways:</u>				
17	Buffalo grass over site.	m ²	260		
	<u>Maintenance Period:</u>				
18	Maintenance of grassed and ground covered areas for a period of 3 months (total area approximately 260m2) including regularly weeding and irrigating as necessary.	Item			
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Site Clearance, Bulk Earthworks And Grassing

Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 5</u> <u>EXTERNAL WORKS (PROVISIONAL)</u> <u>Bill No. 2</u> <u>RAINWATER TANKS AND STANDS</u> <u>TRADE PREAMBLES</u> <u>Trade Preambles:</u> For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill. <u>SUPPLEMENTARY PREAMBLES</u> <u>General Note:</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>EXCAVATION OTHER THAN BULK</u> <u>Excavate in earth not exceeding 2 m deep:</u>				
1	Trenches.	m ³	25	
<u>Extra over excavations other than bulk in earth for excavation in:</u>				
2	Soft rock.	m ³	3	
3	Hard rock.	m ³	2	
<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):</u>				
4	Off site to a dumping site to be found by the Contractor.	m ³	15	
<u>Risk of collapse of excavations other than bulk:</u>				
5	Sides of trench and hole excavations not exceeding 1,5m deep.	m ²	68	
<u>EARTH FILLING, ETC</u> <u>Filling with material from the excavations compacted to a density of at least 96% Mod. AASHTO maximum density:</u>				
6	Backfilling to trenches, holes, etc.	m ³	10	
<u>Filling with G5 material in accordance with SABS 1200 DM, material supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod. AASHTO maximum density:</u>				
7	Under floors, paving, etc.	m ³	9	
TOTAL CARRIED TO BILL SUMMARY			R	
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Bill No. 2				
Rainwater Tanks And Stands				

Item		Unit	Quantity	Rate	Amount
	<u>Surface Preparation:</u>				
8	Trim and level off surface of ground (excavated or filled under previous contract) to receive concrete surface beds, including excavating or filling not exceeding 150mm deep, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 96% Mod. AASHTO maximum density, part to falls.	m ²	20		
	<u>TESTS</u>				
	<u>Prescribed density tests on filling:</u>				
9	Modified AASHTO Density test.	No	8		
	<u>SOIL POISONING</u>				
	<u>Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:</u>				
10	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming.	m ²	20		
11	To bottoms and sides of trenches, holes, etc.	m ²	111		
	<u>KEEPING EXCAVATIONS FREE OF WATER</u>				
	<u>Keeping excavations free of water:</u>				
12	Keeping excavations free of all water other than subterranean water.	Item			
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
	<u>15Mpa/19mm Concrete:</u>				
13	Strip footings.	m ³	11		
	<u>REINFORCED CONCRETE</u>				
	<u>25Mpa/19mm Concrete:</u>				
14	Surface beds.	m ³	2		
	<u>FINISHING TOP SURFACE OF CONCRETE</u>				
	<u>Finishing top surfaces of concrete smooth with a wood float:</u>				
15	Surface beds, slabs, etc.	m ²	20		
	<u>TEST BLOCKS</u>				
	<u>Test blocks:</u>				
16	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	8		
	TOTAL CARRIED TO BILL SUMMARY			R	
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	Rainwater Tanks And Stands				

Item		Unit	Quantity	Rate	Amount
	<u>FORMWORK</u>				
	<u>Smooth formwork to sides:</u>				
17	Edges, risers, ends and reveals not exceeding 300 mm high.	m	51		
	<u>MOVEMENT JOINTS, ETC</u>				
	<u>Expansion joints with low density (33kg/m³), cross linked, closed cell, expanded polyethylene joint former, with tear off strip fitted to concrete surface with adhesive as per adhesive manufacturer's recommendation between vertical concrete and brick surfaces:</u>				
18	10mm Isolation joints not exceeding 300mm high.	m	51		
	<u>REINFORCEMENT</u>				
	<u>High tensile steel reinforcement to structural concrete work:</u>				
19	Bars of various diameter.	Tonnes	0.86		
	<u>Fabric reinforcement:</u>				
20	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	20		
	<u>BRICKWORK IN FOUNDATIONS</u>				
	<u>Brickwork of NFP bricks in class I mortar:</u>				
21	One brick wall.	m²	52		
	<u>Joint forming material in movement joints:</u>				
22	Expansion joints with low density (33kg/m³), cross linked, closed cell, expanded polyethylene joint former, with tear off strip fitted to concrete surface with adhesive as per the manufacturer's recommendation and built in vertically between brickwalls.	m²	9		
	<u>2,5mm Galvanised reinforcement:</u>				
23	150mm Wide reinforcement built in horizontally in foundations.	m	203		
	<u>FACE BRICKWORK</u>				
	<u>'Rustgold-Travertine' or equal approved FBS clay face bricks size 222 x 106 x 73mm, bedded, jointed in class I mortar and pointed with recessed horizontal and vertical joints:</u>				
24	Extra over ordinary brickwork for face brickwork.	m²	27		
25	Fair cutting at squint quoins or birdsmouth angles.	m	39		
TOTAL CARRIED TO BILL SUMMARY				R	
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Rainwater Tanks And Stands					

Item		Unit	Quantity	Rate	Amount
	<u>FACE BRICKWORK COPINGS, SILLS, ETC</u>				
	<u>'Ounu-Travertine' or equal approved FBS clay face brick header course copings, sills, etc., pointed with recessed joints on all exposed faces:</u>				
26	220mm Coping on top of one brick wall.	m	58		
	<u>DAMPROOFING TO WALLS AND FLOORS</u>				
	<u>One layer of 375 micron brikgrit DPC embossed damp proof course:</u>				
27	In walls.	m ²	13		
	<u>One layer of 250 micron gunplas black waterproof sheeting sealed at laps with gunplas pressure sensitive Tape:</u>				
28	Under surface beds.	m ²	20		
	<u>WATERSTOPS, SEALING STRIPS, JOINT SEALANTS, ETC</u>				
	<u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc:</u>				
29	10 x 10mm In expansion joints in walls including raking out expansion joint filler as necessary.	m	67		
	<u>METALWORK</u>				
	<u>Bolts:</u>				
30	Bolts.	Kg	1		
31	10mm x 100mm long Eye-bolt once bent and cast into concrete	No	32		
32	8-Gauge wire as tie strap to tank.	m	134		
33	30 x 1.6mm Hoop iron strap to tanks.	m	46		
34	30 x 1.6mm Hoop iron strap bracket once bent, twice holed and bolted to hoop iron strap around tanks (bolts elsewhere).	m	2		
	<u>TANKS, ETC</u>				
	<u>Tanks:</u>				
35	5 000 Litre plastic seamless water storage tank complete with fixing lugs and lid, fitted with and including 40/25mm reducer and 25mm barrel nipple and setting in position on concrete tankstand (elsewhere measured) and tying down with 4mm diameter galvanised wire wrapped twice around centre of tank and secured to each corner of tank stand with a double strand of 4mm diameter galvanised wire embedded into concrete.	No	8		
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Item		Unit	Quantity	Rate	Amount
36	Hole through top of tank lid for 100 x 100mm pipe.	No	8		
	<u>TAPS, VALVES, ETC</u>				
	<u>Crutch handle and lockshield stopcocks:</u>				
37	25mm Brass ball valve.	No	8		
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2	RAINWATER TANKS AND STANDS

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SECTION NO. 6
TEMPORARY WORKS
(PROVISIONAL)

Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 6</u> <u>TEMPORARY WORKS (PROVISIONAL)</u> <u>Bill No. 1</u> <u>TEMPORARY HORDING</u> <u>Key:</u> <u>Location Description:</u> Temp Temporary Works <u>TRADE PREAMBLES</u> <u>Trade preambles:</u> For Trade Preambles refer to 'Specification of Materials and Methods' (PW371) for the full descriptions of material to be used and work to be done in this Bill. <u>SUPPLEMENTARY PREAMBLES</u> <u>General note:</u> Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item <u>TEMPORARY FENCING AND GATE</u> NOTE: The Contractor will, throughout the entire period of the works, be responsible for the proper and adequate protection of property and the public and Government personnel and pupils from damage or injury resultant from the works and for the proper security of the site at all times during the course of the works. Further, the Contractor must allow for all temporary hoardings, fans and walkways, etc. required by the Local Authorities, National Building Regulations, OHS Act and or demanded by his own requirements. Allowance must further be made for periodic adjustment of any hoardings/ temporary fencing and for their eventual removal and for making good. The following specific temporary fencing is required. All other temporary fencing hoardings etc. Required must be priced for in the Preliminaries of these Bills of Quantities NOTE: The prices of fencing shall be deemed to include site clearance and the preparation of ground as necessary, and the removal of the fencing after completion, filling in holes etc. and making good grass etc. where fence removed and the Contractor is to price accordingly.				
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Temporary Hording				

Item		Unit	Quantity	Rate	Amount
	<u>Stout barrier fencing:</u>				
1	Stout barrier fencing 1800mm high with and including intermediate gum poles posts, straining posts and end posts, straining wires, diamond mesh, covered with 80% knitted HDPE monofilament green shed netting, including all necessary excavation, backfilling, etc. installed complete, including removal after completion of the contract and making good.	m	214		
2	Extra over barrier fence for double vehicle gate size 5000 x 1800mm high, including providing gate posts, locking chains etc. and the removal of gate on completion. (Contractor to visit site in order to fully assess the total cost implication for pricing purposes)	No	1		
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SECTION NO. 7
PROVISIONAL AMOUNTS

Item	Unit	Quantity	Rate	Amount
<u>SECTION NO. 7</u> <u>PROVISIONAL AMOUNTS</u> <u>Bill No. 1</u> <u>WORK BY SMMES</u> <u>WORK BY SMME'S</u> 1. The following provisional sums and amounts are NET and are for works to be completed by SMME's. The Principal Contractor will be responsible for co-ordinating and managing the work done by SMME's. He will also be required to provide attendance (same as for selected or nominated sub-contractors) for the SMME's, both of which must be priced for. 2. Under no circumstances may any Provisional Sum be extended at an amount lower than the amount given in the bill. 3. Unless a specific percentage mark-up for Attendance is indicated in a rate column, the amount priced by the Contractor for Attendance against each Provisional Sum shall be deemed to be the Lump Sum and shall not be adjusted unless the scope of the sub contract varies significantly. 4. Provisional Sums for work to be executed by SMME'S contained here-in may be omitted or reduced at the Employer's sole discretion and the Contractor shall not be entitled to claim for any loss by way of reductions or omissions or any discount, or percentage relating to Provisional Sums or PC amounts or any loss of profit related thereto. 5. The Principal Contractors attention must price in the Preliminaries Section of these Bills of Quantities for the management of SMME's including providing for their PPE, OHS Files etc., as set out in C7 Employment of SMME Sub-Contractors in the Preliminaries Section of these Bill of Quantities. 6. The SMME Sub-Contractors will be appointed as domestic Sub-Contractor's by the Principal Contractor. <u>WALKWAYS, RAMPS, PAVING, APRONS, ROAD, ETC</u> <u>Walkways, Ramps, Paving, Aprons, Road, Etc:</u>				
1	Item			809 000 00
2	Item			
3	Item			
TOTAL CARRIED TO BILL SUMMARY			R	
Section No. 7 Bill No. 1 Work By Smmes				

Item		Unit	Quantity	Rate	Amount
	<u>SUBSOIL DRAINAGE</u>				
	<u>Subsoil Drainage:</u>				
4	Provide the amount of R 43 000.00 (Forty Three Thousand Rands) for construction of Subsoil Drainage complete to executed by SMME's.	Item			43 000 00
5	Profit on above item.	Item			
6	Attendance on ditto.	Item			
	<u>STORMWATER DRAINAGE</u>				
	<u>Stormwater Drainage:</u>				
7	Provide the amount of R 219 000.00 (Two Hundred and Nineteen Thousand Rands) for construction of Stormwater Drainage complete to be executed by SMME's.	Item			219 000 00
8	Profit on above item.	Item			
9	Attendance on ditto.	Item			
	<u>SOIL DRAINAGE</u>				
	<u>Soil Drainage:</u>				
10	Provide the amount of R 55 000.00 (Sixty Three Hundred Rands) for Soil Drainage complete to be executed by SMME's.	Item			55 000 00
11	Profit on above item.	Item			
12	Attendance on ditto.	Item			
	<u>RETAINING WALLS</u>				
	<u>Retaining Walls:</u>				
13	Provide the amount of R 193 000.00 (One Hundred and Ninety Three Thousand Rands) for construction of Retaining Walls complete to be executed by SMME's.	Item			193 000 00
14	Profit on above item.	Item			
15	Attendance on ditto.	Item			
	<u>SECURITY FENCING</u>				
	<u>Security Fencing:</u>				
16	Provide the amount of R 644 000.00 (Six Hundred and Forty Four Thousand Rands) for construction of (anti-climb) security fencing complete to be executed by SMME's.	Item			644 000 00
17	Profit on above item.	Item			
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Item		Unit	Quantity	Rate	Amount
18	Attendance on ditto.	Item			
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<u>SECTION NO. 7</u> <u>PROVISIONAL AMOUNTS</u> <u>Bill No. 3</u> <u>MONETARY ALLOWANCE</u> <u>MONETARY ALLOWANCES</u> The following monetary provisions are to be omitted from the contract sum and used as directed below. <u>Contingencies:</u> 1 Provide the sum of R310 000.00 (Three Hundred and Ten Thousand Rands) for contingencies and design contingency, to be used as instructed by the Principal Agent in terms of clause 17 of the Principal Building Agreement. <u>Statutory Increases:</u> 2 Notwithstanding the provisions of clause 32.13 or any other clause all fluctuations in costs shall be for the account of the contractor. See also clause 41.4.6.				
	Item			310 000 00
	Item			0 00
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- 2 PROVISIONAL AMOUNTS
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