

**MACEKANE PRIMARY SCHOOL
BOQ**

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1,1	BILL NO.1 - MACEKANE PRIMARY SCHOOL PRELIMINARIES 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". PRICING OF PRELIMINARIES Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities. Edition 4.1 Code 2101, March 2005 is taken to be <u>SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT</u> 2.0 DOCUMENTS Checking of documents. The items in these bills of quantities are to be read and priced in conjunction with and the descriptions regarded as amplified by the Model Preambles for Trades as recommended and published by the Association of South African Quantity Surveyors, 2007 edition, and no claim arising from brevity of description of items fully described in the said model Preambles for Trades will be entertained. Clause 2.1 F:..... V:..... T:..... Provisional bills of quantities. These bills of quantities shall not be used for ordering purposes. Clause 2.2 F:..... V:..... T:..... Availability of construction documentation. The budgetary allowances allocated for sub-contract amounts allocated for subsequent trades included in this document will be separately procured, based on multiple procurement of sub-contractors during construction period. Clause 2.3 F:..... V:..... T:..... Interests of agents. Clause 2.4 F:..... V:..... T:..... Priced documents. Notwithstanding the provisions of this clause, the contractor shall deposit/submit the priced documents within the time as stated in A41.4.4 of the Schedule of Contract Variables				
		Item	1,00		
		Item	1,00		
		Item	1,00		
		Item	1,00		
		Item	1,00		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	<p>Rates (items)</p> <p>Where appropriate, rates for similar items in these bills of quantities should be the same</p> <p>Prior to signing of the Principal Building Agreement the Principal Agent shall be at liberty to make such adjustments to individual rates whether they are Subcontractors' rates or not, as will eliminate errors or discrepancies or which he considers to be imbalanced, unreasonable or unrealistic rates without altering the tender sum.</p> <p>Clause 2.5</p> <p>F:..... V:..... T:.....</p> <p>Tender submission</p> <p>This clause is amended by substituting "JBCC Form of Tender" with "Official Form of Tender:</p> <p>Clause 2.6</p> <p>F:..... V:..... T:.....</p> <p>3.0 THE SITE</p> <p>Defined works area</p> <p>The area of the works to be occupied by the contractor, any restriction on the area and the limit of access or exit will be pointed out to the contractor by the principal agent on handing over the site</p> <p>Clause 3.1</p> <p>F:..... V:..... T:.....</p> <p>Geotechnical investigation</p> <p>Clause 3.2</p> <p>F:..... V:..... T:.....</p> <p>Inspection of the site</p> <p>There will be a compulsory site inspection and briefing meeting as per tender advertisement. Failure to attend will lead to disqualification of the tender.</p> <p>Clause 3.3</p> <p>F:..... V:..... T:.....</p> <p>Existing premises occupied</p> <p>Clause 3.4</p> <p>F:..... V:..... T:.....</p> <p>Previous work - dimensional accuracy</p> <p>Clause 3.5</p> <p>F:..... V:..... T:.....</p> <p>Previous work - defects</p> <p>Clause 3.6</p> <p>F:..... V:..... T:.....</p>	<p>Item</p> <p>H3</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p> <p>Item</p>	<p>1,00</p> <p>1,00</p> <p>1,00</p> <p>1,00</p> <p>1,00</p> <p>1,00</p> <p>1,00</p>		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	Services - known	Item	1,00		
	Clause 3.7				
	F:..... V:..... T:.....				
	Services - unknown	Item	1,00		
	Clause 3.8				
	F:..... V:..... T:.....				
	Protection of trees	Item	1,00		
	Clause 3.9				
	F:..... V:..... T:.....				
	Articles of value	Item	1,00		
	Clause 3.10				
	F:..... V:..... T:.....				
	Inspection of adjoining properties	Item	1,00		
	Clause 3.11				
	F:..... V:..... T:.....				
	4.0 MANAGEMENT OF CONTRACT	H3			
	Management of the Works	Item	1,00		
	The Contractor shall obtain all necessary particulars of Subcontractors' work timeously for the necessary provisions to be made				
	Clause 4.1				
	F:..... V:..... T:.....				
	Programming for the Works	Item	1,00		
	Clause 4.2				
	F:..... V:..... T:.....				
	Progress meetings	Item	1,00		
	Caluse 4.3				
	F:..... V:..... T:.....				
	Technical meetings	Item	1,00		
	Clause 4.4				
	F:..... V:..... T:.....				
	Labour and plant records	Item	1,00		
	Clause 4.5				
	F:..... V:..... T:.....				
	5.0 SAMPLES AND SHOP DRAWINGS	H3			
	Samples of materials	Item	1,00		
	Caluse 5.1				
	F:..... V:..... T:.....				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	Workmanship samples	Item	1,00		
	Clause 5.2				
	F:..... V:..... T:.....				
	Shop drawings	Item	1,00		
	Clause 5.3				
	F:..... V:..... T:.....				
	Compliance with manufacturers' instructions	Item	1,00		
	Clause 5.4				
	F:..... V:..... T:.....				
	6.0 TEMPORARY WORKS AND PLANT	H3			
	Deposits and fees	Item	1,00		
	Clause 6.1				
	F:..... V:..... T:.....				
	Enclosure of the works	Item	1,00		
	Clause 6.2				
	F:..... V:..... T:.....				
	Advertising	Item	1,00		
	Clause 6.3				
	F:..... V:..... T:.....				
	Plant, equipment, sheds and offices	Item	1,00		
	Clause 6.4				
	F:..... V:..... T:.....				
	Main noticeboard	Item	1,00		
	Clause 6.5				
	F:..... V:..... T:.....				
	Subcontractors notice board	Item	1,00		
	Clause 6.6				
	F:..... V:..... T:.....				
	7.0 TEMPORARY SERVICES	H3			
	Location	Item	1,00		
	Clause 7.1				
	F:..... V:..... T:.....				
	Water	Item	1,00		
	Clause 7.2				
	F:..... V:..... T:.....				
	Electricity	Item			
	Clause 7.3				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	F:..... V:..... T:..... Telecommunication equipment Clause 7.4	Item	1,00		
	F:..... V:..... T:..... Ablution facilities Clause 7.5	Item	1,00		
	F:..... V:..... T:..... 8.0 PRIME COST AMOUNTS	H3			
	Responsibility for prime cost amounts Clause 8.1	Item	1,00		
	F:..... V:..... T:..... 9.0 ATTENDANCE ON NOMINATED/SELECTED SUBCONTRACTORS	H3			
	General attendance Clause 9.1	Item	1,00		
	F:..... V:..... T:..... Special attendance	Item	1,00		
	The last three words contained within Clause 9.2, ie. "..... In the schedule", shall be deleted and replaced by ".....within the relevant item incorporated in these bills of quantities". Clause 9.2				
	F:..... V:..... T:..... Commissioning - Fuel, water and power Clause 9.3	Item	1,00		
	F:..... V:..... T:..... 10.0 FINANCIAL ASPECTS	H3			
	Statutory taxes, duties and levies	Item	1,00		
	Provision is made in the summary of these bills of quantities for inclusion of Value Added Tax (VAT) Clause 10.1				
	F:..... V:..... T:..... Payment of preliminaries Clause 10.2	Item	1,00		
	F:..... V:..... T:..... Adjustment of preliminaries	Item	1,00		
	Should the contractor select Alternative B but fails to provide the information required prior to signing of the contract, the Principal Agent shall have the right to select either Alternative A or B for the adjustments of Preliminaries. If the Principal Agent selects Alternative B he shall be entitled to make such assumptions at his discretion regarding the information which the contractor would normally have provided prior to signing of the contract.				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	Clause 10.3 F:..... V:..... T:..... Payment certificate cash flow Clause 10.4 F:..... V:..... T:..... 11.0 GENERAL Protection of the Works Clause 11.1 F:..... V:..... T:..... Protection/isolation of existing/sectionally occupied Works Clause 11.2 F:..... V:..... T:..... Site security The contractor shall provide and maintain twenty-four hour site security and loss control systems all to the satisfaction of the Principal Agent. It is envisaged that these procedures will incorporate, inter alia, gate control for personnel and vehicles, individual entry permit, regular security patrols and the like. Clause 11.3 F:..... V:..... T:..... Notice before covering work Clause 11.4 F:..... V:..... T:..... Disturbance Clause 11.5 F:..... V:..... T:..... Environmental disturbance Clause 11.6 F:..... V:..... T:..... Works cleaning and clearing Clause 11.7 F:..... V:..... T:..... Vermin Clause 11.8 F:..... V:..... T:..... Overhand work Clause 11.9 F:..... V:..... T:..... Instruction manuals and guarantees	Item	1,00		
		H3			
		Item	1,00		
		Item	1,00		
		Item	1,00		
		Item	1,00		
		Item	1,00		
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		Item	1,00		
Carried Forward					

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	<p>Clause 11.10</p> <p>F:..... V:..... T:.....</p> <p>As built information</p> <p>Clause 11.11</p> <p>F:..... V:..... T:.....</p> <p>Tenant installations</p> <p>Clause 11.12</p> <p>F:..... V:..... T:.....</p> <p>12.0 SCHEDULE OF VARIABLES</p> <p>12.1 PRE-TENDER INFORMATION</p> <p>Pre-tender information is given hereunder:</p> <p>Clause</p> <p>(and reference)</p> <p>12.1.1 Provisional bills of quantities</p> <p>(2.2)The quantities are provisional.</p> <p>Yes</p> <p>12.1.2 Availability of construction documentation.</p> <p>(2.3)Construction documentation is not complete.</p> <p>No</p> <p>12.1.3 Interests of agents</p> <p>The agents have no interest in this project apart from their professional interest.</p> <p>12.1.4 Defined Works area</p> <p>The contractor will not be allowed to extend his operations beyond the area indicated on the drawings or defined by the Principal Agent</p> <p>12.1.5 Geotechnical investigation</p> <p>(3.2) A Report is available for inspection at the Civil and Structural Engineer's offices</p> <p>PLANT RECORD</p> <p>At the end of each week the contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works each day of that week.</p> <p>12.1.6 Existing premises occupied</p> <p>(3.4)Yes</p> <p>12.1.7 Previous work - dimensional accuracy</p> <p>Not applicable</p> <p>12.1.8 Previous work - defects.</p> <p>Not applicable</p>	<p>Item</p> <p>Item</p> <p>H2</p> <p>Item</p> <p>Item</p>	<p>1,00</p> <p>1,00</p> <p>1,00</p> <p>1,00</p>		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	<p>12.1.9 Services - known.</p> <p>Not applicable</p> <p>12.1.10 Protection of trees.</p> <p>No specific requirements</p> <p>12.1.11 Inspection of adjoining properties</p> <p>(3.11)</p> <p>Not applicable</p> <p>12.1.12 Enclosure of the Works.</p> <p>Not applicable</p> <p>12.1.13 Offices</p> <p>(6.4.3)</p> <p>The contractor shall provide, maintain and remove on completion one meeting room at least 8.0 x 5.0m on plan and 2.6m high internally. The room shall be well lit and fitted with three power outlets. The Contractor shall furnish the room with a large table and at least ten chairs.</p> <p>12.1.14 Main notice board.</p> <p>One main notice board shall be provided</p> <p>12.1.15 Subcontractors notice board.</p> <p>A notice board is required</p> <p>No</p> <p>12.1.16 Water</p> <p>(7.2)</p> <p>Option A (by contractor)</p> <p>Yes</p> <p>12.1.17 Electricity</p> <p>Option A (by contractor)</p> <p>Yes</p> <p>12.1.18 Telecommunications</p> <p>Telephone</p> <p>Yes</p> <p>Facsimile</p> <p>Yes</p> <p>E-mail</p> <p>Yes</p> <p>12.1.19 Ablution facilities</p> <p>Option A (by contractor)</p> <p>Yes</p> <p>12.1.20 Protection of existing/sectionally occupied works.</p>				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	<p>(11.2) Protection is required.</p> <p>Yes</p> <p>12.1.21 Special attendance</p> <p>Details of special attendance required shall be as detailed within the relevant to each particular sub-contract as incorporated hereinafter in these bills of quantities.</p> <p>12.1.22 Protection of the Works</p> <p>No specific requirements</p> <p>12.1.23 Disturbance</p> <p>Whilst the employer shall not impose restrictions upon the contractor's working hours, the contractor shall take all measures available to him in order to minimise noisy operations during business hours. Such measures will include, inter alia, the use of silent compressors and strict control of workmen.</p> <p>12.1.24 Environmental disturbance</p> <p>Not applicable</p> <p>12.2 POST-TENDER INFORMATION</p> <p>Post-tender information required under clauses 12.2.1 to 12.2.3 shall be completed prior to contract signing, in consultation with the contractor</p> <p>SECTION C: SPECIFIC PRELIMINARIES</p> <p>SUPPLEMENTARY DOCUMENTATION</p> <p>As built drawings.</p> <p>The position of construction breaks and the extent of individual concrete pours are to be recorded by the Contractor on the structural engineering drawings and are to be submitted to the Principal Agent and the structural engineer for their records.</p> <p>F:..... V:..... T:.....</p> <p>Site Instructions.</p> <p>Contract instructions issued on site are to be recorded in triplicate in an instruction book which is to be maintained on site by the contractor.</p> <p>LABOUR RECORD</p> <p>At the end of each week the contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all sub-contractors on the works each day of that week.</p> <p>PLANT RECORD</p> <p>At the end of each week the contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant excluding hand tools, currently used on the works each day of that week.</p> <p>Time Related Items</p> <p>Operation and maintenance of facilities on site for contractor</p> <p>Supervision for the duration of construction</p> <p>Other time related obligations</p>				
		Item	1,00		
		H2			
		H2			
		Item	1,00		
		Item	1,00		
		Item	1,00		
		Item	1,00		
		Months	6,00		
		Months	6,00		
Carried Forward					-

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					-
	Compliance with Occupational Health and Safety requirements (Act 83 of 94) and construction regulations	Item	1,00		-
	Compliance with Broad Based Black Economic Empowerment requirements				
	Community Liaison Officer	Months	6,00		-
	Security	Months	6,00		-
	Temporary Classrooms during Renovations (2 x 12m Prefab)	Months	6,00		-
	chemical Toilets for Workers	Months	6,00		-
	chemical Toilets for Male Students (4 Toilets)	Months	6,00		-
	chemical Toilets for Female Students (4 Toilets)	Months	6,00		-
	Provision of notice board as per standard specification	Item	1,00		-
TOTAL TO SUMMARY					0,00

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
2,0	<p><u>BILL NO. 2 - MACEKANE PRIMARY SCHOOL</u></p> <p><u>DEMOLITIONS</u></p> <p>NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this bill -----</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Nature and extent description of demolitions give a rough guide only as to the scope of the work. Tenderers are therefore advised to visit the site before submitting a tender and to acquaint themselves with the nature and extent of the work to be done and the value of recoverable materials which are not to be re-used or handed over to the Employer. Unless otherwise stated, loose furniture, kitchen and other equipment, apparatus, machinery, etc. shall remain the property of the Employer and the removal thereof does not fall within the scope of this Contract. The Contractor shall completely demolish the buildings, etc. in a careful, skilful, practical and safe manner down to/or below concrete level. Demolition shall include breaking up and removing: all concrete footings and foundation walls all floors and surface beds all external screen walls, steps, ramps, aprons, surface water channels, rainwater sumps, gulleys, etc. attached to the building to be demolished; all internal services; all services (comprising of water, sewer, electrical, gas, etc), manholes, etc. in the ground to a point not less than 1m beyond the perimeter of the building, including plugging off ends of all remaining pipes, drains, etc. filling in holes where necessary and raming and levelling to ground level. Where only a portion of a building is to be demolished, it shall be done without damage to the remaining portion of the building. Any such damage shall be made good by the Contractor at his own expense.</p> <p>Notices. The Contractor shall, before commencing work, obtain all necessary authorisation for carrying out the work, by whatever means including the use of pneumatic equipment or blasting, give all necessary notices and pay all charges and fees in connection therewith. He shall also comply with all regulations pertaining to rodent extermination and he/she shall obtain the requisite Rodent Extermination Clearance Certificate and pay all necessary fees. All receipts and certificates shall be left in the safekeeping of the Architect. Demolitions shall include all the abovementioned charges and fees. The Contractor shall give ample notice to the Architect and Local Authorities regarding any disconnections necessary prior to the removal or interruptions of electrical or telephone cables, water and sanitary services, etc.</p> <p>Loss After the handing over of the site to the Contractor, the full risk of any loss or damage to buildings to be demolished shall be the responsibility Contractor and he shall take such precautions as he/she deems necessary against such loss or damage.</p> <p>Materials from the demolitions, credit, etc. Materials recovered from the demolitions will become the property of the contractor, who must allow credit in respect thereof where provided for in the bills of quantities. Such materials shall not be re-used in any new work without written permission from the Architect.</p> <p>Disposal of debris, etc. The Contractor shall be responsible for the removal from the site of all materials, rubble, debris and rubbish resulting from the demolitions. The contractor must take asbestos rubble to the registered asbestos dump sites.</p>				
2,1	<p><u>DEMOLITION OF PLAIN PIT LATRINES BLOCKS</u></p> <p>Breaking down and removing buildings complete including all foundations, services including disconnecting electrical, sewer and water, and cart away rubble. Special care is to be given to the removal of asbestos - containing materials, the works should comply with health and safety regulations. The sub-contractor is to be duly registered as an asbestos contractor with the Department of Labour and proof of such registration should be made available before demolition work may commence.</p>				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				Brought Forward	
2.1.1	Removal and carting away of building rubble	m ²	10		
2.1.2	Desludging of existing toilet pits and dispose sludge at approved site	No	3		
2.1.3	Removal of ceilings and cornices including carting away and disposing at approved dump site	m ²	1 254		
2.1.4	Removal of down pipes including carting away and disposing at approved dump site	m ²	76		
2.1.5	Removal of gutters including carting away and disposing at approved dump site	m ²	356		
2.1.6	Removal of windows including panes of sizes 0.1m ² to 2m ² including carting away and disposing at approved dump site	m ²	115		
2.1.7	Removal of fascia and barge boards including carting away and disposing at approved dump site	m ²	496		
2.1.8	Demolish Brickwork and dispose	m ²	150		
2.1.9	Demolish Screed and dispose	m ²	250		
2.1.10	Demolish Plaster and dispose	m ²	180		
2.2	Breaking up and removing mass concrete				
2.2.1	100mm Thick slabs	m ²	300		
2.2.2	200mm Thick slabs	m ²	30		
	Asbestos Removal				
	Removal of existing asbestos roof sheeting and disposal at a licenced asbestos disposal site. The Contractor must adhere to all applicable legislation, including but not limited to the Asbestos Regulations (GNR.155 of 10 February 2002), Asbestos Abatement Regulations (Government Notice R1196 in GG 43893 of 10 November 2020) and National Environmental Management: Waste Act 59 of 2008.	m ³	1 418		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
3,0	<u>BILL NO. 3 - MACEKANE PRIMARY SCHOOL</u>				
	<u>EARTHWORKS</u>				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)				
	<u>SUPPLEMENTARY PREAMBLES</u>				
	NOTE IN RESPECT OF REMEASUREMENT OF FOUNDATIONS Foundation brickwork and concrete walls have been measured to top of unfinished floor level				
	Earth excavated				
	All excavations are measured as being in "earth" and/or filling compacted to 93% modified AASHTO density. Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling, or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the Contractor's method of operation. 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 and for bulking				
	Working space				
	Working space for formwork to sides of all concrete, except columns, shall be measured only where the concrete face is less than 750mm from the face of the measured excavations. Working space for formwork to sides of columns shall be measured for the width of the column face only where both: the top of the column base is more than 1500mm below the commencing level of the excavations and the column face is less than 500mm from the face of the measured excavations.				
	No claim shall be considered for any working space for formwork to concrete other than as above described or for working space beyond the sides of trench excavations for the building of brick or block walls. Descriptions of excavations for working space shall be deemed to include for any additional risk of collapse so incurred and for the returning and compacting of the excavated material as described				
3,1	Carting away of excavated material				
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
	Site clearance				
	3.1.1 Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m²	414		
	3.1.2 Stripping average 150mm thick layer of top soil and stockpiling on site	m²	414		
	Taking out and removing, grubbing up roots and filling in holes				
3.1.3	Tree stump exceeding 200mm and not exceeding 1000mm girth	No	1		
	3.1.4 Tree stump exceeding 500mm and not exceeding 1500mm girth	No	1		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	Excavation in earth not exceeding 2.5m deep				
3.1.5	Trenches	m ³	200		
3.1.6	Pits holes	m ³	120		
3.1.7	Reduced levels under floors	m ³	3		
	Extra over all excavations for carting away				
3.1.8	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m ³	30		
	Extra over trench and hole excavations in earth for excavation in				
3.1.9	Soft rock	m ³	2		
3.1.10	Intermediate Material	m ³	2		
3.1.11	Hard rock	m ³	2		
	Risk of collapse of excavations				
3.1.11	Sides of trench and hole excavations not exceeding 1,5m deep	m ²	75		
3.1.12	Sides of trench and hole excavations exceeding 1,5m deep	m ²	80		
	Keeping excavations free of water				
3.1.13	Keeping excavations free of all water other than subterranean water	Item	1		
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density				
3.1.14	Backfilling to trenches, holes, etc.	m ³	98		
	Earth filling supplied by the contractor of G7 quality material in layers of 150mm thick compacted to 93% Mod AASHTO density				
3.1.15	Under floors, pavings, etc.	m ³	89		
	Soilcrete filling				
3.1.16	500mm wide soilcrete backfill 8% batch mix	m ³	60		
	Compaction of surfaces				
3.1.17	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	80		
	Prescribed density tests on filling				
3.1.18	Modified AASHTO Density test	No	9		
3,2	<u>SOIL POISONING</u>				
	Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
3.2.1	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m ²	340		
3.2.2	To bottoms and sides of trenches etc.	m ²	50		
3,3	Finishing and Grassing				
3.3.1	Importation of G7 quality material and compaction in layers of 150mm thick compacted to 93% Mod AASHTO density	m ³	100		
3.3.2	Planting of cynoden mix grassing including 150mm thick compost	m ²	120		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
4,0	<p><u>BILL NO. 4 - MACEKANE PRIMARY SCHOOL</u></p> <p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p> <p>For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Type of cement</p> <p>All cement used in concrete work is to be OPC cement, no cement containing fly ash will be allowed</p> <p>Cost of tests</p> <p>The costs of making, storing and testing of concrete test cubes shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Representative/Agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Representative/Agent. (Test cubes are measured separately)</p> <p>DEGREE OF ACCURACY</p> <p>Degree of accuracy shall be in accordance with SABS 0155 - 1980 : Grade 2 Foundations, concrete on plan: 35mm. Elements above foundations on plan: 10mm vertical up to 3m: 15mm. Door, window opening on plan: 15mm plumpness of jamb each meter: 5mm Max: 15mm Ceilings: Any point above a 3m straight edge placed level in any direction: 6mm</p>				
4,1	<p><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></p> <p>Reinforced concrete with a coarse aggregate of 19mm and a minimum compressive strength of 25MPa at 28 days</p>				
4.1.1	Foundations	m ³	32		
4.1.2	Surface bed slab	m ³	95		
4.1.3	Slabs	m ³	6		
4,2	<p><u>REINFORCED CONCRETE</u></p> <p>Reinforced concrete with a coarse aggregate of 19mm and a minimum compressive strength at 28 days</p>				
4.2.1	Aprons	m ³	12		
4,3	<p><u>TEST BLOCKS</u></p>				
4.3.1	Prepare set of three 150 x 150 x 150mm concrete strength test cubes, label and send to an approved laboratory for testing, pay all charges and submit report to the Representative/Agent. Only successful tests will be paid for	No	18		
4,4	<p><u>CONCRETE SUNDRIES</u></p> <p>Finishing top surface of concrete smooth</p>				
4.4.1	Steel Float Surface beds, slabs, ramps etc.	m ²	30		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
4,5	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>				
	Rough formwork to sides of				
4.5.1	Edges, risers, ends and reveals not exceeding 300 mm high or wide	m	200		
	Rough formwork to soffits				
4.5.2	Slab propped up exceeding 1,5m and not exceeding 3.5m high	m²	20		
	Rough formwork to form:				
4.5.3	150mm Diameter opening through 200mm slab	No	6		
4.5.4	250mm Diameter opening through 200mm slab	No	6		
	Formwork to soffits:				
4.5.5	Slabs propped up not exceeding 1.8m high	m²	0		
4,6	<u>MOVEMENT JOINTS ETC.</u>				
	Two layer of 375 micron damp proof course in slip joints between horizontal concrete and brick surfaces including cement mortar bed:				
4.6.1	Not exceeding 300mm wide.	m	80		
	Horizontal joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool				
4.6.2	Isolation joints and sealant as per details	m	80		
4.6.3	Saw cut joints and sealant as per details	m	248		
4,7	<u>REINFORCEMENT</u>				
	Mild steel reinforcement				
4.7.1	8mm Diameter bars	t	0,60		
	High tensile steel reinforcement				
4.7.2	10-25mm Diameter bars	t	3,00		
	Fabric reinforcement				
4.7.3	Type Ref 193 reinforcement in concrete surface beds, slabs, etc.	m²	832		
	Pre-cast concrete Pit covers				
4.7.4	Pre-cast pit covers Type A as per details	No	8		
4.7.5	Pre-cast pit covers Type B as per details	No	4		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
5,0	<p><u>BILL NO. 5 - MACEKANE PRIMARY SCHOOL</u></p> <p><u>MASONRY</u></p> <p>For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Sizes in descriptions</p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p>Wall ties</p> <p>Descriptions of solid walls (except if built in English bond) and cavity walls shall be deemed to include metal wall ties complying with SABS 28 and of the butterfly or of the modified PWD type, of the required length with each end built at least 75mm deep into brickwork, spaced at not more than 1m centres alternatively to every third course of brickwork</p> <p>Cavity walls etc.</p> <p>Descriptions of cavity walls shall be deemed to include leaving every fifth prebends of the bottom course of the external skin open as a weep hole</p> <p>Face bricks</p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour</p> <p>Pointing</p> <p>Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.</p> <p>Degree of accuracy</p> <p>Degree of accuracy shall be in accordance with SABS 0155 - 1980 : Grade 2 Foundations, concrete on plan: 5mm. Elements above foundations on plan: 10mm vertical up to 3m: 15mm Door, window opening on plan: 15mm plumpness of jamb each meter: 5mm Max: 15mm Ceilings: Any point above a 3m straight edge placed level in any direction: 6mm</p>				
5,1	<p><u>SUBSTRUCTURE & FOUNDATION WALLS</u></p> <p>Brickwork of M200 bricks (14 MPa nominal compressive strength) in Class I mortar</p>				
5.1.1	<p>Single M200 blocks with brickforce every course and cavaities to be filled with 15MPa mass concrete</p> <p>Brickwork in extra hard burnt clay bricks in (4:1) cement mortar with all joints grouted in solid with liquid cement mortar</p>	m²	70		
5.1.2	<p>Double brick wall in foundation</p> <p>Bagging of (3:1) sand cement mixture and sealing to brickwork</p>	m²	86		
5.1.3	<p>Bagging and sealing the outer face of the inner skin of walls with 1:3 cement and sand mixture and seal with two coats 'Brixéal' bitumen emulsion waterproofing coating</p>	m²	250		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
5.2	<u>SUPERSTRUCTURE</u>				
	Brickwork of NFX bricks (14MPa nominal compressive strength) in Class I mortar				
5.2.1	Single brick internal wall	m ²	23		
5.2.2	Half brick wall in beamfilling	m ²	7		
5.2.3	Double brick wall	m ²	25		
5.2.4	Single brick external against facebrick	m ²	158		
	<u>FACED BRICKWORK</u>				
	Rainbow Light Semi Facebrick				
5.2.5	Single brick external wall	m ²	156		
5.2.6	Double brick external wall	m ²	20		
5.2.7	Extra over brickwork for facebrick work	m ²	176		
5.2.8	Extra over brickwork in beam filling for face brickwork	m ²	7		
5.2.9	Face brick-on-edge coping on top of one brick wall in cement mortar and pointing on top and both sides	m	8		
5.2.10	Brick-on-edge header course lintels pointed on face and 110mm soffit	m	0		
5.2.11	Cut face brick-on-edge external window cill, 180mm wide, set sloping and slightly projecting in cement mortar and pointed on top, front edge and projecting soffit including all necessary fair raking cutting to facings under and fair and fitted ends	m	42		
5.2.12	Extra over sill for solid face brick on ends of sills	m	8		
5.2.13	Fair raking cutting	m	16		
5.2.14	Fair cutting and fitting around pipe not exceeding 150mm diameter	No	8		
	Movement joints				
5.2.15	10mm Vertical wall joint with 800mm long hoop iron every 4th course and sealed as per detail	m	90		
	Brickwork reinforcement				
5.2.16	75mm Wide reinforcement built in horizontally	m	150		
5.2.17	150mm Wide reinforcement built in horizontally	m	600		
	Galvanised hoop iron cramps, ties, etc.				
5.2.18	40 x 2mm Diameter roof tie 1800mm girth bent double with one end fixed to timber and other end built into brickwork	No	30		
	Prestressed fabricated lintels				
5.2.19	110 x 76mm Lintels in lengths not exceeding 3m	m	30		
	Brick Cleaning				
5.2.20	Apply biocide high pressure cleaning on external facebrick walls	m ²	2 345		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL NO. 6 - MACEKANE PRIMARY SCHOOL</u>				
6,0	<u>WATERPROOFING</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC) <u>SUPPLEMENTARY PREAMBLES</u> Waterproofing Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
6,1	<u>DAMP-PROOFING OF WALLS AND FLOORS</u>				
	One layer of 375 micron black embossed polyethylene damp-proof course				
6.1.1	Under cills, etc.	m ²	50		
	250 Micron green medium density damp-proof membrane laid loose under solid floors with pressure sensitive tape jointing				
6.1.2	Under surface beds and ramps	m ²	120		
6,2	<u>WATERPROOFING TO WALLS</u>				
	Walls lined with Copro or similar cementitious water proofing (applied as per manufactures specifications) with 75mm mortar chamfer at the bottom corners				
6.2.1	On walls	m ²	120		
6,3	<u>JOINT SEALANTS, ETC.</u>				
	Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
6.3.1	10 x 10mm In vertical isolation joints in brickwalls including raking out joint filler as necessary	m	120		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
7,0	<p><u>BILL NO. 7 - MACEKANE PRIMARY SCHOOL</u></p> <p><u>ROOF COVERINGS</u></p> <p>For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)</p> <p>PREAMBLES</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>PREAMBLES</p> <p>Certificate for galvanised roof covering</p> <p>The contractor is to submit a certificate signed by the merchant, stating that the galvanised roof covering supplied, complies with the required thickness specified</p>				
7,1	<p><u>CORRUGATED METAL SHEETING AND ACCESSORIES</u></p> <p>Supply and fix using Hurricane Screw Fixing on 0.5mm Galvanized metal IBR profile roof sheeting @ 5°, on insulation on 76x50mm SA pine purlins @ 1100mm C/Cs on timber Rafters.</p>				
7.1.1	Safintra Widedek or (rain cloud sheeting) or similar approve or classicorr Roof covering with pitch not exceeding 17,5 degrees	m²	1 428		
7.1.2	Holes for 150mm diameter pipe including flashing around	No	20		
7.1.3	Sissilation under roof sheetings.	m²	1 215		
7.1.4	High pressure cleaning to existing tiled roof	m²	420		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
8,0	<p><u>BILL NO. 8 - MACEKANE PRIMARY SCHOOL</u></p> <p><u>CARPENTRY AND JOINERY</u></p> <p>For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>Joinery:</p> <p>Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.</p> <p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p> <p>Fixing</p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete</p> <p>Timber</p> <p>All softwood to be South African Pine</p> <p><u>DESCRIPTIONS</u></p> <p>Items described as "bolted" shall be deemed to exclude the bolts and include the holes unless otherwise described. Where the fixing of members is not stated it shall mean the nailing of one timber member to another. The term "planted on" shall mean the nailing of one timber member to another. The term "screwed on" shall mean the countersunk screwing of one timber member to another. The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screws sunk and pelleted. The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete. The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screws sunk and pelleted. Shelving, etc.. described as screwed to steel must be fixed from underside and prices are to include for countersunk drilling through the steel for screw fixing. Descriptions of floors, ceilings, joinery, etc.. shall be deemed to include for all square cutting. Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc. Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc.. shall be deemed to include for angles, ends, etc..</p> <p><u>PRE-FABRICATED TIMBER ROOF TRUSSES AND ASSOCIATED BRACING</u></p>				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	<p>NOTE: The following is applicable in respect of roof trusses and bracing: Plate nailed timber trusses shall be of approved design and manufacture and constructed with softwood structural timber by a truss Fabricator holding a current Certificate of Competence awarded by the Institute of Timber Construction. Each roof truss shall have all its members accurately cut and closely butted together and rigidly fixed by CSIR approved patented galvanised metal spiked connectors, precision pressed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions. The design, manufacture and transportation of the trusses, bracing, etc., shall be under the control of a registered Structural Engineer in accordance with SABS 0160 and SABS 0163, who shall, after erection, provide a certificate confirming that the design, manufacture, transportation, erection and bracing has been carried out in accordance with the specifications. The design shall include for all live loads, wind load, etc., shall be deemed to include for all square cutting. Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc. Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc., shall be deemed to include for angles, ends, etc., _____ done without damage to the remaining portion of the building. Any such damage shall be made good by the Contractor at his own expense.</p>				
8,1	<p><u>COMPLETE ROOF</u></p> <p>Sawn softwood pre-fabricated plate nailed timber in roof construction to roofs complete with 38 x 114mm wall plates (elsewhere treated with carbolinium before fixing), trusses, jack rafters, additional supports for jack trusses and louvre frames, etc., all necessary permanent bracing, metal hangers, cleats, bolts, etc., purlins as described and one gang plank per roof layout over entire building length between fire walls (Roof covering, louvres to Dutch hips and fascias elsewhere)</p>				
8.1.1	Complete design and supply of double pitched roof over existing classrooms with overhangs eaves on both sides, overhanging verge on one side and veranda on other side supported on and including 75 x 150mm laminated beams, including all wall plates, trusses, girders, jack rafters, permanent bracing, laminated beams, loose connectors, galvanised steel shoes, hangers, bolts and purlins, installed complete	m²	1 038		
8.1.2	Engineers design and Certification	No	1		
8,2	<p><u>WOOD PRESERVATIVES</u></p> <p>Carbolinum protective wood coatings</p>				
8.2.1	Two coats applied hot sawn timber before fixing	m²	120		
8.2.2	Two coats applied hot wrought exposed roof timbers	m²	120		
8,3	<p><u>DOORS</u></p> <p>Purpose made wrot Meranti door hung to timber frames</p>				
8.3.1	813x2032x40mm semi solid core door. Finish with 1 coat universal undercoat and 2 coats Enamel paint.	No	49		
8.3.2	813x2032x40mm Meranti FLB flush open back door. Finish with 1 coat universal undercoat and 2 coats Enamel paint.	No	49		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
8,4	<u>FASCIAS AND BARGE BOARDS</u>				
	Tempered fibre-cement				
8.4.1	Premier 2FAS42 pre-painted Steel Fascia Board on the sides	m	356		
8.4.2	10mm x 225 Everite Nutec Fibre cement Barge boards	m	140		
8,5	<u>CEILINGS</u>				
8.5.1	4mm Nutec fibre cement ceiling or similar nailed to 38 x 38mm SA Pine grade 6 bandering	m²	1 206		
8.5.2	75mm Coved cornice	m	482		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL NO. 9 - MACEKANE PRIMARY SCHOOL</u>				
9,0	<u>IRONMONGERY</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC) Where ironmongery is described as plugged, prices are to include for screwing to and including approved patent plugs in concrete or brickwork with plaster or tiled finish _____				
9,1	<u>IRONMONGERY FIXED TO DOORS, ETC.</u>				
	Locks				
9.1.1	BB-179S Brass barrel bolt toilet lockset	No	16		
9.1.2	Solid blesbok 460/313 3 lever lockset.	No	49		
	Handles				
9.1.3	100mm Chromium plated bow handle bolted through door with the bolt ends hammered to prevent the nuts being removed	No	49		
9.1.4	Union Door hinges - Pair	No	49		
9,2	<u>SUNDRIES</u>				
9.2.1	38mm Rubber door stop plugged and screwed to wall or floor	No	49		
9,3	<u>LETTERS, NAMEPLATES, ETC.</u>				
	Indicator plates countersunk holed for and screwed to door or brickwork with chromium plated dome-headed screws				
9.3.1	180 x 180mm Aluminium international toilet sign with FEMALE figure screwed to door	No	3		
9.3.2	180 x 180mm Aluminium international toilet sign with MALE figure screwed to door	No	3		
9.3.3	180 x 180mm Aluminium international toilet sign with WHEELCHAIR figure screwed to door	No	1		
9,4	<u>BATHROOM FITTINGS</u>				
	Chairman Industries Grabrails or equal and approved				
9.4.1	32mm Stainless steel Basin grab rail.	No	1		
9.4.2	32mm Stainless steel rear grab rail.	No	1		
9.4.3	32mm Stainless steel side flip up rail	No	1		
9.4.4	Toilet roll dispenser (two rolls) code 405606 plugged to walls	No	17		
9,5	<u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u>				
9.5.1	Supply and install approved size pinning boards	No	24		
9.5.2	Supply and install approved size notice boards	No	24		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL NO. 10 - MACEKANE PRIMARY SCHOOL</u>				
10,0	<u>METALWORK</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC) <u>SUPPLEMENTARY PREAMBLES</u> Descriptions Descriptions of bolts shall be deemed to include nuts and washers Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
10,1	<u>HOT DIPPED GALVANISED PIVOT DOORS, SCREENS, GATES, ETC</u> The following in galvanised pivot doors to brickwork				
10.1.1	Standard mild steel 813x2032x1,2mm doublerebate pressed metal door frame for 220mm walls. Galvanised finish	No	12		
10.1.2	Standard mild steel 813x2032x1,2mm single rebate pressed metal door frame for 110mm walls. Galvanised finish	No	32		
10,2	<u>GALVANISED STEEL WINDOWS, DOORS, ETC</u>				
10.2.1	Standard mild steel residential top-hung open out window frames - complete with burglar-proofing out of 10mmØ solid round bars.				
10.2.2	W2: NE1-type standard residential type	No	4		
10.2.3	W1: NE2-type standard residential type	No	14		
10.2.4	W3: 1300x990	No	112		
10.2.5	W4: 680x520	No	48		
10.2.6	W5: 1300x520	No	52		
10,3	<u>GALVANISED STEEL POSTS</u>				
10.3.1	75x75x6 SHS 0.8m long with baseplate on one end and bracket on other to support roof overhang as per details including rods, end plates and bolts.	No	4		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL NO. 11 - MACEKANE PRIMARY SCHOOL</u>				
11,0	<u>PLASTERING</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)				
11,1	<u>SCREEDS</u> 1 :3 Cement plaster screeds steel trowelled on concrete				
11.1.2	25mm steel floated granolythic screed	m ²	550		
11,2	<u>INTERNAL PLASTER</u> One coat 1:4 cement plaster to brickwork				
11.2.1	On walls	m ²	1 400		
11.2.2	On narrow widths	m ²	120		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
12,0	<p><u>BILL NO. 12 - MACEKANE PRIMARY SCHOOL</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p>For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p>uPVC pipes and fittings</p> <p>Soil, waste and vent pipes and fittings shall be solvent weld jointed</p> <p>uPVC pressure pipes and fittings</p> <p>Pipes for water supply shall be of the Class stated</p> <p>Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings</p> <p>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</p> <p>Copper pipes</p> <p>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 architect's specification. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground</p> <p>Fixing of pipes</p> <p>Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc., casting in, building in or suspending not exceeding 1m below suspension level</p> <p>Reducing fittings</p> <p>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</p> <p>Wire gratings</p> <p>Descriptions of gutter outlets, etc. shall be deemed to include wire balloon gratings</p> <p>Exposed concrete surfaces</p> <p>Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catch pits, inspection chambers, etc. shall be finished smooth with plaster</p> <p>Excavations</p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling</p>				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
	<p>Soft rock and "Hard rock" shall be as defined in "Earthworks"</p> <p>Laying, backfilling, bedding, etc. of pipes</p> <p>Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions</p> <p>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, SABS 1200LD: Sewers, SABS1200LE: Storm water drainage Pipe trenches etc. shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be Class B bedding</p> <p>Flush pans</p> <p>Flush pans shall have straight or side outlets and "P" or "S" traps as necessary</p> <p>Stainless steel basins, sinks, wash troughs, urinals, etc.</p> <p>Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable</p> <p>Waste unions</p> <p>Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings</p> <p>Petroleum anti-corrosion tape</p> <p>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</p> <p>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.</p> <p>Prices for wrapping of pipes shall include for all work as described to couplings in the length</p>				
12,1	<u>GUTTERS ETC.</u>				
	Metal Rainwater Goods with Joints				
12.1.1	100 x 125 x 0,8mm Metal sheet Gutters	m	356		
12.1.2	Extra over gutter for stopped end.	No	32		
12.1.3	Extra over gutter for outlet for 90mm diameter pipe.	No	20		
12.1.4	90mm Diameter rainwater pipes.	m	66		
12.1.5	Extra over rainwater pipe for bend.	No	24		
12,2	<p><u>SANITARY FITTINGS</u></p> <p>NOTE: All sanitary fittings shall be sealed next to walls, fitting sides and shelves with an approved type non-fungal sustaining white silicon</p> <p>Polyethylene fittings</p>				
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
12.2.1	Charlog Christy wash hand basin 570 x 395mm wide, or similar approved, with two tapholes and 50mm waste outlet, plugged and 8mm Rawl bolted	No	18		
12.2.2	Atlas Plastic VIP 200 Pedestal with seat cover and funnel or similar approved	No	20		
12.2.3	Charlog bowl urinal approved, size 320mm x 350 x 490mm high, coupled with waterless urinal waste fittings complete plugged and screwed to the wall with galvanised screws and brackets	No	12		
12,3	<u>TAPS, VALVES, ETC.</u> 'Cobra-Watertech' or equally approved:				
12.3.1	15mm Chromium plated elbow action pillar tap	No	18		
12.3.2	15 mm Chromium plated biptap with 3/4" BSP hose union with star tap handles	No	4		
12.3.3	15mm compression type angle regulating valve with 15mm x 10mm outlet compression nut and ring	No	18		
12,4	<u>WASTE UNIONS, TRAPS, ETC.</u> Chromium plated				
12.4.1	32mm chrome plated waste with anti-theft plug and spindle.	No	18		
	Rubber traps, etc.				
12.4.3	38mm Deep seal "P" or "S" trap	No	18		
12,5	<u>SANITARY PLUMBING</u> uPVC soil and vent pipes for above ground installations				
12.5.1	50mm Pipes	m	68		
12.5.1	110mm Pipes	m	40		
12.5.2	110 mm Black A/G pipes	m	96		
	Extra over uPVC soil and vent piping for above ground fittings				
12.5.3	50mm Bend	No	42		
12.5.4	110mm Bend	No	36		
12.5.5	50mm Junction	No	42		
12.5.6	50mm Access bend	No	36		
12.5.7	110mm Access bend	No	18		
	Ventilators				
12.5.8	110mm Diameter PVC ventilation fixed to wall with 3 x galv brackets pipe extending 500mm above roof highest point	No	22		
Carried Forward					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought Forward					
12.5.9	110mm Diameter Model PVS-IS3 PVC Insect and Rodent Insect and Rodent guard mesh	No	22		
12,6	<u>TESTING</u>				
12.6.1	Pressure testing waste pipe system	Item	1		
12,7	<u>WATER SUPPLIES</u>				
	uPVC pipes fixed to walls, etc				
12.7.1	15mm Pipes	m	85		
12.7.2	22mm Pipes	m	35		
12,8	<u>TESTING</u>				
12.8.1	Pressure testing water pipe system	Item	1		
12,9	<u>TANKS</u>				
	Tanks and fittings, etc				
12.9.1	5500 Litre plastic seamless horizontal water storage tank complete with fixing lugs and lid, fitted with and including 15mm brass bibtap with handle suitable for padlocking 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	12		
12.9.2	Cut hole through top of tank lid and seal for 75 x 100mm pipe.	No	10		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL NO. 13 - MACEKANE PRIMARY SCHOOL</u>				
13,0	<u>GLAZING</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)				
13,1	<u>GLAZING TO STEEL WITH PUTTY</u> 4mm glass				
13.1.1	Panes exceeding 0,1m ² and not exceeding 2,0m ² . Mirrors NOTE Mirrors shall be of 6mm thick silvered GG quality polished float glass with rounded and polished edges and splayed corners Unless otherwise described, mirrors shall have four holes for and be screwed to and including approved patent plugs in plastered or tiled wall with countersunk steel screws tap-threaded for and including screw type chromium plated dome-headed caps and felt washers _____	m ²	124		
13.1.2	Mirror size 450 x 600mm	No	10		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
14,0	<p><u>BILL NO. 14 - MACEKANE PRIMARY SCHOOL</u></p> <p><u>PAINTWORK</u></p> <p>For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>PREPARATORY WORK TO EXISTING WORK</u></p> <p>Previously painted plastered surfaces</p> <p>Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth</p> <p>Previously painted plasterboard surfaces Surfaces shall be thoroughly cleaned before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth. Steel H-strips and nails to be reprimed with calcium plumbate primer.</p> <p>Previously painted metal surfaces</p> <p>Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal.</p> <p>Previously painted wood surfaces</p> <p>Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth. Existing wood surfaces to be stripped, neutralised, sanded and treated.</p> <p>Existing facebrick surfaces</p> <p>Surfaces shall be thoroughly cleaned down. Cracks and crevices shall be primed, filled with suitable filler and finished smooth.</p>				
14,1	<p><u>PAINT ON PLASTER, ETC..</u></p> <p>Prepare and apply one coat dulux alkali resistant plaster primer, one coat dulux trade universal undercoat and two coats dulux pearglo waterbased enamel paint or similar approved</p>				
14.1.1	On internal plastered walls	m²	1 926		
14.1.2	On external plastered walls	m²	1 069		
	<p><u>PAINT ON DOORS</u></p> <p>Wood prime one coat undercoat and two coats gloss</p>				
14.1.3	On wooden doors	No	22		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL NO. 15 - MACEKANE PRIMARY SCHOOL</u>				
15,0	<u>STORMWATER DRAINAGE, SOIL DRAINAGE AND WATER SUPPLY (PROVISIONAL)</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC) All excavations are measured as being in "earth" and/or filling compacted to 98% modified AASHTO density. Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the Contractor's method of operation. 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 and for bulking _____.				
15,1	<u>STORMWATER DRAINAGE</u> Mass concrete with a coarse aggregate of 19mm and a minimum compressive strength of 25MPa at 28 days				
15,2	<u>SOAKAWAYS</u> Site clearance				
15.2.1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m ²	32		
15.2.2	Stripping average 100mm thick layer of top soil and stockpiling on site	m ²	4		
	Excavation in earth not exceeding 2.5m deep				
15.2.3	Soakaway trench	m ³	56		
	Extra over all excavations for carting away				
15.2.4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m ³	28		
	Extra over trench and hole excavations in earth for excavation in				
15.2.5	Soft rock	m ³	2		
15.2.6	Hard rock	m ³	2		
Carried Forward					

Brought Forward					
	Selected filling with material from the excavations compacted to a density of at least 93% Mod. AASHTO maximum density:				
15.2.7	Backfilling to trenches, holes, etc.	m ³	8		
	Back filling with material supplied by the contractor				
15.2.8	40-80mm washed stone encasing to pipes	m ³	40		
	Geofabric				
15.2.9	Nonwoven continuous filament needlepunched geotextile with high drainage capacity in both directions, to wrap around entire soakaway trench.	m ²	182		
	uPVC pipes				
15.2.10	110mm Perforated drain pipes class 34 uPVC laid between stones	m	40		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL No. 16 - MACEKANE PRIMARY SCHOOL</u>				
16,0	<u>WALKWAYS</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC) All excavations are measured as being in "earth" and/or filling compacted to 98% modified AASHTO density Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the Contractor's method of operation 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 and for bulking _____				
16,1	<u>WALKWAYS</u> Site clearance				
16.1.1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m ²	80		
16.1.2	Stripping average 100mm thick layer of top soil and stockpiling on site	m ²	80		
	Excavate in earth not exceeding 1000mm deep				
16.1.3	Reducing levels under floors	m ³	16		
16.1.4	Extra over all excavations for carting away surplus material from excavations and/or from stockpiles on site to a dumping site to be located by the Contractor	m ³	10		
16.1.5	Extra over excavations in earth for trenches and holes for excavations in soft rock	m ³	2		
16.1.6	Extra over excavations in earth for trenches and holes for excavations in hard rock	m ³	2		
	Filling, etc.				
16.1.7	Backfilling from the excavations to trenches and holes compacted to 93% modified AASHTO density	m ³	8		
16.1.8	Earth filling supplied by the contractor of G7 quality material under floors in layers of 150mm thick compacted to 93% Mod AASHTO density	m ³	3		
16.1.9	Prepare ground surface by scarifying top 150mm layer of ground and re-compact to 93% modified AASHTO density	m ²	80		
	Tests				
16.1.10	Tests to determine the degree of compaction, etc. of ground or filling	No	12		
	Protection against termites				
16.1.13	Poisoning surface of walkways.	m ²	80		
Carried Forward					

Brought Forward					
	Mesh reinforced concrete with a coarse aggregate of 19mm and a minimum compressive strength of 25MPa at 28 days				
16.1.14	In walkways cast in panels	m³	8		
	Formwork to				
16.1.15	Edges, risers, ends, etc. not exceeding 300mm high or wide	m	159		
	Movement joints				
16.1.16	Movement joint not exceeding 300mm high formed of 12mm bitumen impregnated softboard placed vertically in position between concrete surface bed and brick walls, etc. including raking out top section 10mm deep and filling with bituminous compound	m	80		
TOTAL TO SUMMARY					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	<u>BILL No. 17 - MACEKANE PRIMARY SCHOOL</u>				
17,0	<u>SPECIAL ITEMS</u> For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)				
17,1	<u>Electrical Works</u>				
17.1.1	Allow an amount of R 300,000 (Three Hundred Thousand) for Electrical wiring and installation at school (applied to floor area of building on plan)	Prov Sum	1		
17,2	<u>Gas Installation</u>				
17.2.1	Allow an amount of R 10,000 (Ten Hundred Thousand) for Gas installation to nutritional centre	Prov Sum	1		
17,3	<u>Vinyl Tiles</u>				
17.3.1	Supply and install Vinyl Tiles on Floors all inclusive	m³	2 345		
17,4	<u>Sport Facility Upgrades</u>				
17.4.1	Supply and install hot dip galvanised netball posts in 400mm x 400mm x 1000mm deep concrete footing	No.	2		
17.4.2	Supply and install standard size hot dip galvanised netball posts in 400mm x 400mm x 1000mm deep concrete footing including painting with Hammerite Paint or similar approved	No.	2		
17.4.3	Supply and install standard size hot dip galvanised soccer posts in 400mm x 400mm x 1000mm deep concrete footing including painting with Hammerite Paint or similar approved	No.	2		
17.4.4	Allow an amount of R100,000 (One Hundred Thousand) for CLO (10 months)	Prov Sum	1		
TOTAL TO SUMMARY					

MACEKANE PRIMARY SCHOOL
SUMMARY OF COSTING

BILL NO.	DESCRIPTION	AMOUNT
1	Preliminary and General	
2	Demolitions	
3	Earthworks (Provisional)	
4	Concrete, Formwork and Reinforcement	
5	Masonry	
6	Waterproofing	
7	Roof Coverings	
8	Carpentry and Joinery	
9	Ironmongery	
10	Metalwork	
11	Plastering	
12	Plumbing and Drainage	
13	Glazing	
14	Paintwork	
15	Stormwater Drainage, etc	
16	Walkways	
17	Special Items	
	Sub-Total Excluding Contingencies	
	Contingencies 5%	
	Construction Cost Including Contingencies	
	ADD: VAT @ 15%	
	Total Construction Cost Including VAT @ 15%	