SECTION 1

PRELIMINARIES

MEANING OF TERMS "TENDER / TENDERER"

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"

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"

The ASAQS Preliminaries (November 2007 edition) published by the Association of South African Quantity Surveyors for use with the said JBCC Principal Building Agreement shall be deemed to be incorporated in these bills of quantities

Contractor's are referred to the abovementioned documents for the full intent and meaning of each clause thereof

These clauses are hereinafter referred to by clause number and heading only. Where standard clauses or alternatives are not entirely applicable to this contract, such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements shall take precedence notwithstanding anything contrary contained in the abovementioned documents

Where any item is not relevant to this specific contract such item is marked N/A, signifying "not applicable"

PREAMBLES FOR TRADES

The Model Preambles for Trades (2008 edition) as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained

Supplementary preambles are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles shall take precedence over the provisions of the said Model Preambles

The contractor's prices for all items throughout these bills of quantities must take account of and include for all of the obligations, requirements and specifications given in the said Model Preambles and in any supplementary preambles

PRICING OF PRELIMINARIES

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

SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT
DEFINITIONS

A1.0 **DEFINITIONS AND INTERPRETATION**

Clause 1.0
Clause 1.1 Definition of "**Commencement Date**" is added:
"**COMMENCEMENT DATE"** means the date that the **agreement,** made in terms of the Form of Offer and Acceptance, comes into effect

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**

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 non-competitive 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 the 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)

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

Fixed:_____ Value related:_____ Time related:_____
Item

OBJECTIVE AND PREPARATION

A2.0 **OFFER, ACCEPTANCE AND PERFORMANCE**

Clause 2.0
Fixed:_____ Value related:_____ Time related:_____
Item

A3.0 **DOCUMENTS**

Clause 3.0

Clause 3.2.1 is amended by replacing “14.1” with “14.0”

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**”

Fixed:_____ Value related:_____ Time related:_____

Item

A4.0 **DESIGN RESPONSIBILITY**

Clause 4.0

Clause 4.3 is amended by replacing it with the following:
No clause
Fixed:_____ Value related:_____ Time related:_____

Item

A5.0 **EMPLOYER’S AGENTS**

Clause 5.0
Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8

Fixed:_____ Value related:_____ Time related:_____

Item

A6.0 **CONTRACTOR'S SITE REPRESENTATIVE**

Clause 6.0
Fixed:_____ Value related:_____ Time related:_____

Item

A7.0 **COMPLIANCE WITH LAWS AND REGULATIONS**

Clause 7.0

Without limiting the generality of the provisions of Clause 7.0, the contractor's attention is drawn to the provisions of the Construction Regulations, 2014 issued in terms of the Occupational Health and Safety Act, 1993 and Part C6.0 (Annexure C) of this tender document. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specifications

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

Fixed:_____ Value related:_____ Time related:_____

Item

A8.0 **WORKS RISK**

Clause 8.0

Fixed:_____ Value related:_____ Time related:_____

Item

A9.0 **INDEMNITIES**

Clause 9.0

Fixed:_____ Value related:_____ Time related:_____

Item

A10.0 **WORKS INSURANCES**

Clause 10.0
Clause 10.0 is amended by the addition of the following clauses:
10.5 Damage to the Works
(a) Without in any way limiting the **contractor's** 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 materials 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

10.6 Injury to Persons or loss of or damage to Properties
(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

(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 negligence 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 adequate 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**

10.7 High risk insurance
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:

10.7.1 Damage to the works
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

10.7.2 Injury to persons or loss of or damage to property
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

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 **site**, 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

Fixed:_____ Value related:_____ Time related:_____

Item

A11.0 **LIABILITY INSURANCES**
Clause 11.0
Fixed:_____ Value related:_____ Time related:_____

Item

A12.0 **EFFECTING INSURANCES**
Clause 12.0
Fixed:_____ Value related:_____ Time related:_____

Item

A13.0 ***No clause***

A14.0 **SECURITY**
Clause 14.0
Clauses 14.1 - 14.8 are amended by replacing them with the following:

14.1 In respect of contracts with a **contract sum** up to R1 million, the **security** to be provided by the **contractor** to the **employer** will be a payment reduction of five per cent (5%) 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 *mutatis mutandi* 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**

14.2 In respect of contracts with a **contract sum** above R1 million, the **contractor** shall have the right to select the **security** to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the **schedule**. Such **security** shall be provided to the **employer** within twenty-one (21) **calendar days** from **commencement date**. Should the **contractor** fail to select the **security** to be provided or should the **contractor** fail to provide the **employer** with the selected **security** within twenty-one (21) **calendar days** from **commencement date**, the **security** in terms of 14.7 shall be deemed to have been selected

14.3 Where **security** as a cash deposit of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected:

14.3.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.3.2 Within twenty-one (21) **calendar days** of the date of **practical completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to three per cent (3%) of the **contract value** (excluding VAT), and refund the balance to the **contractor**

14.3.3 Within twenty-one (21) **calendar days** of the date of **final completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to one per cent (1%) of the **contract value** (excluding VAT) and refund the balance to the **contractor**

14.3.4 On the date of payment of the amount in the final **payment certificate**, the **employer** shall refund the remainder of the cash deposit to the **contractor**

14.3.5 The **employer** shall be entitled to recover expense and loss from the cash deposit 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 cash deposit **security** or portions thereof to the **contractor**

14.3.6 The parties expressly agree that neither the **employer** nor the **contractor** shall be entitled to cede the rights to the deposit to any third party

14.4 Where **security** as a variable **construction guarantee** of ten percent (10%) of the **contract sum** (excluding VAT) has been selected:

14.4.1 The **contractor** shall furnish the **employer** with an acceptable variable **construction guarantee** equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.4.2 The variable **construction guarantee** shall reduce and expire in terms of the Variable **Construction Guarantee** form included in the invitation to tender

14.4.3 The **employer** shall return the variable **construction guarantee** to the **contractor** within fourteen (14) **calendar days** of it expiring

14.4.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall issue a written demand in terms of the variable **construction guarantee**

14.5 Where **security** as a fixed **construction guarantee** of five per cent (5%) of the **contract sum** (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.5.1 The **contractor** shall furnish a fixed **construction guarantee** to the **employer** equal in value to five per cent (5%) of the **contract sum** (excluding VAT)

14.5.2 The fixed **construction guarantee** shall come into force on the date of issue and shall expire on the date of the last certificate of **practical completion**

14.5.3 The **employer** shall return the fixed **construction guarantee** to the **contractor** within fourteen (14) **calendar days** of it expiring

14.5.4 The payment reduction of the value certified in a **payment certificate** shall be in terms of 31.8 (A) and 34.8

14.5.5 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall be entitled to issue a written demand in terms of the fixed **construction guarantee** or may recover from the payment reduction or may do both

14.6 Where **security** as a cash deposit of five per cent (5%) of the **contract sum** (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.6.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to five per cent (5%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.6.2 Within twenty-one (21) **calendar days** of the date of **practical completion** of the **works** the **employer** shall refund the cash deposit in total to the **contractor**

14.6.3 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)

14.6.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both

14.7 Where **security** as a payment reduction of ten per cent (10%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.7.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(B)

14.7.2 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 or portions thereof to the **contractor**

14.8 Payments made by the guarantor to the **employer** in terms of the fixed or variable **construction guarantee** shall not prejudice the rights of the **employer** or **contractor** in terms of this **agreement**

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

Fixed:_____ Value related:_____ Time related:_____

Item

EXECUTION

A15.0 **PREPARATION FOR AND EXECUTION OF THE WORKS**

Clause 15.0

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 twenty-one (21) **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

Fixed:_____ Value related:_____ Time related:_____

Item

A16.0 **SITE AND ACCESS**

Clause 16.0

Fixed:_____ Value related:_____ Time related:_____

Item

A17.0 **CONTRACT INSTRUCTIONS**

Clause 17.0

Clause 17.1.11 is amended by deleting the words "and the appointment of **nominated** and **selected subcontractors**"

Fixed:_____ Value related:_____ Time related:_____

Item

A18.0 **SETTING OUT OF THE WORKS**

Clause 18.0
The contractor shall notify the Principal Agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc exist in order that the necessary arrangements may be made for the rectification of any such encroachments.
Fixed:_____ Value related:_____ Time related:_____

Item

A19.0 **ASSIGNMENT**

Clause 19.0
Fixed:_____ Value related:_____ Time related:_____

Item

A20.0 **NOMINATED SUBCONTRACTORS**

Clause 20.0

Clause 20.1.3 is amended by replacing it with the following:

No clause

Note: See item B9.1 hereinafter for adjustment of attendance on **nominated subcontractors** executing work allowed for under provisional sums

Fixed:_____ Value related:_____ Time related:_____

Item

A21.0 **SELECTED SUBCONTRACTORS**

Clause 21.0

Clause 21 is amended by replacing it with:

No clause
Fixed:_____ Value related:_____ Time related:_____

Item

A22.0 **EMPLOYER'S DIRECT CONTRACTORS**

Clause 22.0

Fixed:_____ Value related:_____ Time related:_____

Item

A23.0 **CONTRACTOR'S DOMESTIC SUBCONTRACTORS**
Clause 23.0
Fixed:_____ Value related:_____ Time related:_____

Item

COMPLETION

A24.0 **PRACTICAL COMPLETION**
Clause 24.0
Fixed:_____ Value related:_____ Time related:_____

Item

A25.0 **WORKS COMPLETION**
Clause 25.0
Fixed:_____ Value related:_____ Time related:_____

Item

A26.0 **FINAL COMPLETION**
Clause 26.0
Clause 26.1.2 is amended by inserting "#" next to 26.1.2
Fixed:_____ Value related:_____ Time related:_____

Item

A27.0 **LATENT DEFECTS LIABILITY PERIOD**
Clause 27.0
Fixed:_____ Value related:_____ Time related:_____

Item

A28.0 **SECTIONAL COMPLETION**

Clause 28.0

Fixed:_____ Value related:_____ Time related:_____

Item

A29.0 **REVISION OF DATE FOR PRACTICAL COMPLETION**

Clause 29.0

The removal and replacement of materials and/or workmanship which do not conform to specification or drawing shall not constitute grounds for the extension of the construction period nor the adjustment of contract value (Clause 29.3)

Fixed:_____ Value related:_____ Time related:_____

Item

A30.0 **PENALTY FOR NON-COMPLETION**

Clause 30.0

Fixed:_____ Value related:_____ Time related:_____

Item

PAYMENT

A31.0 **INTERIM PAYMENT TO THE CONTRACTOR**

Clause 31.0

Interim Payment to the Contractor (Clause 31) The inclusion of materials and goods stored off site in the amount authorized for payment in terms of Clause 31.4 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. Clause 31.6.5 is therefore not applicable.

Clause 31.5.2 is amended by replacing “14.7.1” with “14.0”

Clause 31.8 is amended by replacing it with the following two alternative clauses:

Alternative A

31.8(A) Where a **security** is selected in terms of 14.1; 14.5 or 14.6, 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 per cent (95%) of such value in interim **payment certificates** issued up to the date of **practical completion**

31.8(A).2 Ninety-seven per cent (97%) 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 per cent (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 per cent (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**

Alternative B

31.8(B) Where **security** as a payment reduction in terms of 14.7 has been selected, 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(B).1 Ninety per cent (90%) of such value in interim **payment certificates** issued up to the date of **practical completion**

31.8(B).2 Ninety-seven per cent (97%) 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(B).3 Ninety-nine per cent (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(B).4 One hundred per cent (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

Fixed:_____ Value related:_____ Time related:_____

Item

A32.0 **ADJUSTMENT TO THE CONTRACT VALUE**

Clause 32.0

All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor.

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**"

Fixed:_____ Value related:_____ Time related:_____

Item

A33.0 **RECOVERY OF EXPENSE AND LOSS**

Clause 33.0

Fixed:_____ Value related:_____ Time related:_____

Item

A34.0 **FINAL ACCOUNT AND FINAL PAYMENT**

Clause 34.0

Clause 34.1 is amended by removing "#" next to 34.1

Clause 34.2 is amended by inserting "#" next to 34.2

Clause 34.8 is amended by deleting the words "where **security** as a fixed **construction guarantee** in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"

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"

Fixed:_____ Value related:_____ Time related:_____

Item

A35.0 **PAYMENT TO OTHER PARTIES**

Clause 35.0

Fixed:_____ Value related:_____ Time related:_____

Item

CANCELLATION

A36.0 **CANCELLATION BY EMPLOYER – CONTRACTOR'S DEFAULT**

Clause 36.0

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:

36.7 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

Fixed:_____ Value related:_____ Time related:_____

Item

A37.0 **CANCELLATION BY EMPLOYER – LOSS AND DAMAGE**

Clause 37.0

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:

37.5 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

Fixed:_____ Value related:_____ Time related:_____

Item

A38.0 **CANCELLATION BY CONTRACTOR – EMPLOYER'S DEFAULT**

Clause 38.0

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

Fixed:_____ Value related:_____ Time related:_____

Item

A39.0 **CANCELLATION – CESSATION OF THE WORKS**

Clause 39.0
Clause 39.3.5 is amended by the addition of the following at the end of the sentence:

"within one hundred and twenty (120) **working days** of completion of such a report"

Fixed:_____ Value related:_____ Time related:_____

Item

DISPUTE

A40.0 **DISPUTE SETTLEMENT**

Clause 40.0

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

Fixed:_____ Value related:_____ Time related:_____

Item

SUBSTITUTE PROVISIONS

A41.0 **STATE CLAUSES**

Clause 41.0
Fixed:_____ Value related:_____ Time related:_____

Item

CONTRACT VARIABLES

A42.0 **THE SCHEDULE (DPW-04EC)**

Clause 42.0
Tenderers are referred to the Contract Data DPW-04(EC) for variables pertaining to this contract

Fixed:_____ Value related:_____ Time related:_____

Item

SECTION B: JBCC PRELIMINARIES

B1.0 **DEFINITIONS AND INTERPRETATION**

B1.1 ***Definitions and interpretation***

See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section

Fixed:_____ Value related:_____ Time related:_____

Item

B2.0 **DOCUMENTS**

B2.1 ***Checking of documents***

Fixed:_____ Value related:_____ Time related:_____

Item

B2.2 ***Provisional bills of quantities***
Fixed:_____ Value related:_____ Time related:_____

Item

B2.3 ***Availability of construction documentation***
Fixed:_____ Value related:_____ Time related:_____

Item

B2.4 ***Interests of agents***
Fixed:_____ Value related:_____ Time related:_____

Item

B2.5 ***Priced documents***
Fixed:_____ Value related:_____ Time related:_____

Item

B2.6 ***Tender submission***
Clause 2.6 is amended by replacing “JBCC Form of Tender” with “Form of Offer and Acceptance DPW-07(EC)”

Fixed:_____ Value related:_____ Time related:_____

Item

B3.0 **THE SITE**

B3.1 ***Defined works area***
Fixed:_____ Value related:_____ Time related:_____

Item

B3.2 ***Geotechnical investigation***
Fixed:_____ Value related:_____ Time related:_____

Item

B3.3 ***Inspection of the site***
Fixed:_____ Value related:_____ Time related:_____

Item

B3.4 ***Existing premises occupied***
Fixed:_____ Value related:_____ Time related:_____

Item

B3.5 ***Previous work – dimensional accuracy***
Fixed:_____ Value related:_____ Time related:_____

Item

B3.6 ***Previous work – defects***
Fixed:_____ Value related:_____ Time related:_____
Item

B3.7 ***Services – known***
Fixed:_____ Value related:_____ Time related:_____
Item

B3.8 ***Services – unknown***
Fixed:_____ Value related:_____ Time related:_____
Item

B3.9 ***Protection of trees***
Fixed:_____ Value related:_____ Time related:_____
Item

B3.10 ***Articles of value***
Fixed:_____ Value related:_____ Time related:_____
Item

B3.11 ***Inspection of adjoining properties***
Fixed:_____ Value related:_____ Time related:_____
Item

B4.0 **MANAGEMENT OF CONTRACT**

B4.1 ***Management of the works***
Fixed:_____ Value related:_____ Time related:_____
Item

B4.2 ***Programme for the works***
Fixed:_____ Value related:_____ Time related:_____
Item

B4.3 ***Progress meetings***
Fixed:_____ Value related:_____ Time related:_____
Item

B4.4 ***Technical meetings***
Fixed:_____ Value related:_____ Time related:_____
Item

B4.5 ***Labour and plant records***
Fixed:_____ Value related:_____ Time related:_____
Item

B5.0 **SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS**

B5.1 ***Samples of materials***
Fixed:_____ Value related:_____ Time related:_____
Item

B5.2 ***Workmanship samples***
Fixed:_____ Value related:_____ Time related:_____
Item

B5.3 ***Shop drawings***

Fixed:_____ Value related:_____ Time related:_____
Item

B5.4 ***Compliance with manufacturers' instructions***
Fixed:_____ Value related:_____ Time related:_____
Item

B6.0 **TEMPORARY WORKS AND PLANT**
Temporary works and plant (Clause 19) The contractor shall provide, maintain and remove on completion all perimeter scaffolding required by the contractor for the due and proper fulfilment of the works

B6.1 ***Deposits and fees***
Fixed:_____ Value related:_____ Time related:_____
Item

B6.2 ***Enclosure of the works***
Fixed:_____ Value related:_____ Time related:_____
Item

B6.3 ***Advertising***
Fixed:_____ Value related:_____ Time related:_____
Item

B6.4 ***Plant, equipment, sheds and offices***
Fixed:_____ Value related:_____ Time related:_____
Item

B6.5 ***Main notice board***
Fixed:_____ Value related:_____ Time related:_____
Item

B6.6 ***Subcontractors' notice board***

Fixed:_____ Value related:_____ Time related:_____
Item

B7.0 **TEMPORARY SERVICES**

B7.1 ***Location***
Fixed:_____ Value related:_____ Time related:_____
Item

B7.2 ***Water***
Fixed:_____ Value related:_____ Time related:_____
Item

B7.3 ***Electricity***
Fixed:_____ Value related:_____ Time related:_____
Item

B7.4 ***Telecommunication facilities***
Fixed:_____ Value related:_____ Time related:_____
Item

B7.5 ***Ablution facilities***
Fixed:_____ Value related:_____ Time related:_____
Item

B8.0 **PRIME COST AMOUNTS**

B8.1 ***Responsibility for prime cost amounts***

Fixed:_____ Value related:_____ Time related:_____
Item

B9.0 **ATTENDANCE ON N/S SUBCONTRACTORS**

B9.1 ***General attendance***
Fixed:_____ Value related:_____ Time related:_____
Item

B9.2 ***Special attendance***
Fixed:_____ Value related:_____ Time related:_____
Item

B9.3 ***Commissioning – fuel, water and electricity***

Fixed:_____ Value related:_____ Time related:_____
Item

B10.0 **FINANCIAL ASPECTS**

B10.1 ***Statutory taxes, duties and levies***
Fixed:_____ Value related:_____ Time related:_____
Item

B10.2 ***Payment for preliminaries***
Fixed:_____ Value related:_____ Time related:_____
Item

B10.3 ***Adjustment of preliminaries***

Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) **working days** of taking possession of the **site**" with "when submitting his priced **bills of quantities / lump sum document**"

Fixed:_____ Value related:_____ Time related:_____

Item

B10.4 ***Payment certificate cash flow***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.0 **GENERAL**

B11.1 ***Protection of the works***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.2 ***Protection / isolation of existing / sectionally occupied works***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.3 ***Security of the works***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.4 ***Notice before covering work***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.5 ***Disturbance***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.6 ***Environmental disturbance***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.7 ***Works cleaning and clearing***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.8 ***Vermin***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.9 ***Overhand work***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.10 ***Instruction manuals and guarantees***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.11 ***As built information***

Fixed:_____ Value related:_____ Time related:_____

Item

B11.12 ***Tenant installations***

Fixed:_____ Value related:_____ Time related:_____

Item

B12.0 **SCHEDULE OF VARIABLES**

B12.1 ***Schedule of variables***

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**

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

12.1 PRE-TENDER INFORMATION

12.1.1 ***Provisional bills of quantities***

[2.2] *The quantities are provisional* *(yes/no)* *NO*

12.1.2 ***Availability of construction documentation***

[2.3] *Construction documentation is complete* *(yes/no)* *NO*

12.1.3 ***Interests of agents – N/A***

[2.4] Details:

12.1.4 ***Defined works area***

[3.1] Details: The area of the works shall be as directed by the Principal Agent on site.

12.1.5 ***Geotechnical investigation – N/A***

[3.2] Details:

12.1.6 ***Existing premises occupied***

[3.4] Specific requirements: Tenderers are to note that the existing school is in use and further, that no disturbance and/or interference with school activities will be tolerated.

12.1.7 ***Previous work – dimensional accuracy***

[3.5] Details: The Contractor shall be responsible for checking all dimensions of existing structures and components thereof. Should any discrepancy be found, this should immediately be brought to the attention of the Principal Agent.

12.1.8 ***Previous work – defects***

[3.6] Details: Should any defects in existing work be encountered, the Contractor shall Immediately notify the Principal Agent.

12.1.9 ***Services – known***

[3.7] Details: The Contractor shall take all reasonable steps to avoid the interference with or disturbance of existing services on site.

12.1.10 ***Protection of trees – N/A***

[3.9] Specific requirements:

12.1.11 ***Inspection of adjoining properties***

[3.11] Specific requirements: All adjoining properties contiguous to the works shall be inspected for existing defects and/or damage and all such defects/damage shall immediately be brought to the attention of the Principal Agent.

12.1.12 ***Enclosure of the works***

[6.2] Specific requirements: The Contractor shall ensure that all working areas are enclosed at all times in terms of the OHS Act and Construction Regulations 2003, and to the satisfaction of the Principal Agent.

12.1.13 ***Offices***

[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

12.1.14 ***Main notice board***

[6.5] Specific requirements:
The **contractor** shall provide, erect where directed, maintain and remove on completion of the **works** a notice board size 3 x 3m as type Drawing GEN 063, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. 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. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering

12.1.15	***Subcontractors' notice board***		
[6.6]	A notice board is required	(yes/no)	*NO*
	Specific requirements:		
12.1.16	***Water***		
[7.2]	Option A (by **contractor**)	(yes/no)	*YES*
	Option B (by **employer –** free of charge)	(yes/no)	
	Option C (by **employer –** metered)	(yes/no)	
12.1.17	***Electricity***		
[7.3]	Option A (by **contractor**)	(yes/no)	*YES*
	Option B (by **employer –** free of charge)	(yes/no)	
	Option C (by **employer –** metered)	(yes/no)	
12.1.18	***Telecommunications***		
[7.4]	Telephone	(yes/no)	*YES*
	Facsimile	(yes/no)	*YES*
	E-mail	(yes/no)	*YES*
12.1.19	***Ablution facilities***		
[7.5]	Option A (by **contractor**)	(yes/no)	*YES*
	Option B (by **employer**)	(yes/no)	
12.1.20	***Protection of existing/sectionally occupied works***		
[11.2]	Protection is required	(yes/no)	*YES*
12.1.21	***Special attendance***		
[9.2]	**Subcontractor** (1) details:		
	Subcontractor (2) details:		
	Subcontractor (3) details:		
	Subcontractor (4) details:		
12.1.22	***Protection of the works***		
[11.1]	Specific requirements: Protection of the works at all times will be a requirement of this Contract.		
12.1.23	***Disturbance***		
[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**		
12.1.24	***Environmental disturbance***		
[11.6]	Specific requirements: Due to the close proximity of the site to large bodies of water, *it is to be noted by the Contractor that no dumping of rubble and/or waste in any form whatsoever will be permitted.*		
12.2	**POST-TENDER INFORMATION**		
12.2.1	***Payment of preliminaries***		
[10.2]	Option A (prorated)	(yes/no)	
	Option B (calculated)	(yes/no)	
12.2.2	***Adjustment of preliminaries***		
[10.3]	Option A (three categories)	(yes/no)	
	Option B (detailed breakdown)	(yes/no)	
12.2.3	***Additional agreed preliminaries items***		
	Details:		

SECTION C: SPECIFIC PRELIMINARIES

Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item

C1.0 CONTRACT DRAWINGS

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

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**

Fixed: _____ Value related:_____ Time related:_____

Item

C2.0 GENERAL PREAMBLES

The document "Specification of Materials and Methods to be used (PW371)" is deemed included as part of the tender document and should be read in conjunction with same.

Fixed: _____ Value related:_____ Time related:_____

Item

C3.0 TRADE NAMES

Wherever a trade name for any product has been described in the **bills of quantities** 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

Fixed: _____ Value related:_____ Time related:_____

Item

C4.0 SECURITY CHECK OF PERSONNEL

The **principal agent** may require the **contractor** to have his personnel and workmen, or a certain number of them, security classified

In the event of the **principal agent** requesting the removal of a person or persons from the **works** for security reasons, the **contractor** shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the **works** and the **site** and/or to any document or information relating to the **works**

Fixed: _____ Value related:_____ Time related:_____

Item

C5.0 HIV/AIDS AWARENESS

It is required of the **contractor** to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the **bills of quantities**. 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 of Section A 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

C5.1 **AWARENESS CHAMPION**

Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related:_____ Time related:_____

Item

C5.2 **AWARENESS WORKSHOPS**

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

Fixed: _____ Value related:_____ Time related:_____

Item

C5.3 **POSTERS, BOOKLETS, VIDEOS, ETC.**

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

Fixed: _____ Value related:_____ Time related:_____

Item

C5.4 **ACCESS TO CONDOMS**

Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the **construction period**, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related:_____ Time related:_____

Item

C5.5 **MONITORING**

Monitoring HIV/AIDS awareness of workers, providing the **principal agent** with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the **construction period** and close out, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value related:_____ Time related:_____

Item

C6.0 **OCCUPATIONAL HEALTH AND SAFETY ACT**

The **contractor** shall comply with all the requirements set out in the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)

It is required of the **contractor** to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the **bills of quantities**.

The **contractor** must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the **principal agent,** notwithstanding the provisions of clause A31.0 of Section A 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

Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained

Fixed: _____ Value related:_____ Time related:_____

Item

C6.1 **COVID SAFETY AND COMPLIANCE**

The contractor is to price against this item for all requirements in respect of COVID prevention, management and compliance. In this regard, the following items must as a minimum be considered when pricing and will be deemed to be included in the rate entered against this item:

a. COVID marshalls for the due enforcement of COVID policy. The required number of marshalls in order to effectively enforce COVID protocol is to be determined by the contractor in accordance with his programme of works. Marshalls are to be duly and effectively trained in the execution of their duties. In addition, marshalls must be provided with the relevant PPE and tools i.e. temperature readers, sanitiser etc. to carry out their designated function.

b. COVID related PPE - the contractor is to ensure that an ample supply of COVID specific PPE is available to the site at all times. This shall include relevant disposable masks, sanitiser, gloves (if applicable), etc. These items shall be sufficient for the contractors own staff, sub-contractors and their staff, as well as the professional team and all visitors to the site.

c. Sanitising of surfaces - a major infection risk remains the contamination of surfaces. With this in mind, the contractor will be required to sanitise all touch surfaces daily i.e. door and window handles, tools, plant controls, desks and other works surfaces, ablutions, kitchens and associated surfaces, etc.

d. COVID testing - the contractor will be required to ensure that all employees (own and subcontractor) are tested for COVID prior to the commencement of work on site.

e. Signage - the contractor shall provide and maintain COVID signage around the site and work areas.

f. Isolation areas - the contractor shall provide and maintain isolation areas for suspected COVID cases amongst the workforce.

g. Waste disposal - COVID related PPE is to be properly disposed of in demarcated areas and the contractor shall accordingly provide same facilities including marked bins, regular waste removal, etc.

h. Transportation of employees - where employees are transported to site by the contractor, he shall ensure that transport arrangements support social distancing and COVID safety.

i. Programme effects - the contractor shall consider the effect of COVID compliance and regulations i.e. social distancing on his programme and shall ensure that costs related to this are included in this item.

j. COVID Management - As part of OHS, the contractor shall ensure that COVID management and reporting are regular and accurate and that preventative or reactive measures are taken as required in order to ensure safety of all personnel on site.

The above mentioned items represent the minimum expected requirements in respect of COVID management and compliance. Tenderers shall in addition price any and all other anticipated costs against this item as no further claims in this regard will be entertained.

Fixed: _____ Value related:_____ Time related:_____

Item

C7.0 **Contract Price Adjustment Provisions**

Bidders are advised that this Contract shall be a Fixed Price Contract and shall not be subject to the Contract Price Adjustment Provisions (CPAP) or any other escalation formula and therefore bidder are to allow for any increases (except any variations in the rate of Value Added Tax) in cost of labour, materials, transport, etc.

C8.0 **Site Instructions**

Site Instructions issued on site are to be recorded in triplicate in a site instruction book which is maintained on site by the contractor.

Fixed: _____ Value related:_____ Time related:_____

Item

C9.0 **Warranties for material and workmanship**

Where warranties for materials and /or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliever same to the Principal Agent on certified completion of contract. The warranty shall state that workmanship, materials and installation are warranteed for a specified period from the date of final completion and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice to do so. The warranty will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall rest entirely with the contractor.
Fixed: _____ Value related:_____ Time related:_____

Item

C10.0 **Co-operation of contractor for cost management**

It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the final building cost does not exceed the budget. The principal agent undertakes to make available to the contractor all budgetary allowances and cost assessments/ reports to enable the proper procedure to be implemented and the contractor shall attend all cost plan review and cost management meetings. The contractor undertakes to extend these procedures, as necessary, to all subcontractors
Fixed: _____ Value related:_____ Time related:_____

Item

C11.0 **Confidentiality**

The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works No information regarding this project shall be published or disclosed without the prior written consent of the employer
Fixed: _____ Value related:_____ Time related:_____

Item

C12.0 **Testing of windows for watertightness**

Each window shall be tested for watertightness with water sprayed on by means of a 20mm hosepipe using adequate pressure. If in the opinion of the principal agent, the pressure proves to be inadequate, then the pressure in the hosepipe shall be boosted by means of compressed air or other approved means
Fixed: _____ Value related:_____ Time related:_____

Item

Tender Data Schedule
Fixed: _____ Value related:_____ Time related:_____

Item

General Conditions of Contract
Fixed: _____ Value related:_____ Time related:_____

Item

Special Conditions of Contract
Fixed: _____ Value related:_____ Time related:_____

Item

Contract Data
Fixed: _____ Value related:_____ Time related:_____

Item

Schedule of Variables
Fixed: _____ Value related:_____ Time related:_____

Item

C13.0 **CONTRACTOR ACCESS**

The contractor shall provide for a security access card for all personnel (management and labour) entering the site. Each identification tag is to include for the following information: -

i. Project name
ii. Colour photo (ID book size)
iii. Company name
iv. Name and ID number

Fixed: _____ Value related:_____ Time related:_____

Item

C14.0 **PRICING OF BILLS OF QUANTITIES**

Tenderers are to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the Standard System of Measurement) patterns, models and templates, plant, temporary works, returning of packing, duties, taxes, imposts, establishment charges, overheads, profit , attendance (general and specific) and all other obligations arising out of the agreement.

The rate inserted by the tenderer opposite each item will be deemed to be applicable to the item as originally specified. Should the tenderer wish to offer an alternative specification to any particular item, he is to provide this as an alternative to his Bid sum for consideration by the principal agent as a submission with his Bid. No alternatives will be accepted during the construction period unless prior approval at tender stage is granted in writing by the Principal Agent. Under no circumstances are the descriptions in the bills of quantities to be altered by the tenderer.

Where a bill of quantities item includes "or other approved" within its description and the tenderer has priced a "or other approved" specification, the tenderer is to provide a schedule of all such bill items that have been priced as "or other approved" including the full details and specifications of the "or other approved" items priced. Should no schedule of "or other approved" items be received with the 'formal tender submission' from the tenderer it shall be deemed that the tenderer has priced the item as per the original specification in the tender documents and no altemative specifications will be accepted for the tendered rate.

Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the tenderer's omission to price any item will be entertained.

Prices for all plant, temporary works, services and other items provided shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary.

The contractor shall execute work during "overtime" hours as necessary in order to complete the project within the agreed construction period and shall provide such resources and work such overtime hours as necessary. Costs for the execution of this work under these conditions shall be included within the contract sum. (See requirements in terms of Clause B12.1.23 of these Preliminaries)

Fixed: _____ Value related:_____ Time related:_____

Item

C15.0 **COSTS OF CLAIMS**

All costs incurred by the contractor in the preparation of claims to the satisfaction of the principal agent and/or quantity surveyor shall be borne by the contractor.

In furtherance of the above, the Contractor shall ensure that at least one dedicated, full-time, senior resource is allocated for the preparation of cost related information including but not limited to payment claims, cost reports, contractor cashflows, etc. Pricing will be deemed to be inclusive of this requirement

Fixed: _____ Value related:_____ Time related:_____

Item

SECTION 1

PRELIMINARIES

COLLECTION

Item		Page	AMOUNT R	c
	SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT			
	Definitions			
A1.0	Definitions and interpretation			
	Objective and Preparation			
A2.0	Offer, acceptance and performance			
A3.0	Documents			
A4.0	Design responsibility			
A5.0	Employer's agents			
A6.0	Contractor's site representative			
A7.0	Compliance with laws and regulations			
A8.0	Works risk			
A9.0	Indemnities			
A10.0	Works insurances			
A11.0	Liability insurances			
A12.0	Effecting insurances			
A13.0	No clause			
A14.0	Security			
	Execution			
A15.0	Preparation for and execution of the works			
A16.0	Site and access			
A17.0	Contract instructions			
A18.0	Setting out of the works			
A19.0	Assignment			
A20.0	Nominated subcontractors			
A21.0	Selected subcontractors			
A22.0	Employer's direct contractors			
A23.0	Contractor's domestic subcontractors			
	Completion			
A24.0	Practical completion			
A25.0	Works completion			
A26.0	Final completion			
A27.0	Latent defects liability period			
A28.0	Sectional completion			
A29.0	Revision of date for practical completion			
A30.0	Penalty for non-completion			
	Payment			
A31.0	Interim payment to the contractor			
A32.0	Adjustment to the contract value			
A33.0	Recovery of expense and loss			
A34.0	Final account and final payment			
A35.0	Payment to other parties			
	Cancellation			
A36.0	Cancellation by employer – contractor's default			
A37.0	Cancellation by employer – loss and damage			
A38.0	Cancellation by contractor – employer's default			
A39.0	Cancellation – cessation of the works			
	Dispute			
A40.0	Dispute settlement			
	Substitute Provisions			
A41.0	State clauses			
	Contract Variables			
A42.0	The schedule			

	SECTION B: JBCC PRELIMINARIES		
B1.0	**Definitions and interpretation**		
B1.1	Definitions and interpretations		
B2.0	**Documents**		
B2.1	Checking of documents		
B2.2	Provisional bills of quantities		
B2.3	Availability of construction documentation		
B2.4	Interests of agents		
B2.5	Priced documents		
B2.6	Tender submission		
B3.0	**The Site**		
B3.1	Defined works area		
B3.2	Geotechnical investigation		
B3.3	Inspection of the site		
B3.4	Existing premises occupied		
B3.5	Previous work – dimensional accuracy		
B3.6	Previous work – defects		
B3.7	Services – known		
B3.8	Services – unknown		
B3.9	Protection of trees		
B3.10	Articles of value		
B3.11	Inspection of adjoining properties		
B4.0	**Management of contract**		
B4.1	Management of the works		
B4.2	Programme for the works		
B4.3	Progress meetings		
B4.4	Technical meetings		
B4.5	Labour and plant records		
B5.0	**Samples, shop drawings and manufacturers' instructions**		
B5.1	Samples of materials		
B5.2	Workmanship samples		
B5.3	Shop drawings		
B5.4	Compliance with manufacturers' instructions		
B6.0	**Temporary works and plant**		
B6.1	Deposits and fees		
B6.2	Enclosure of the works		
B6.3	Advertising		
B6.4	Plant, equipment, sheds and offices		
B6.5	Main notice board		
B6.6	Subcontractors' notice board		
B7.0	**Temporary services**		
B7.1	Location		
B7.2	Water		
B7.3	Electricity		
B7.4	Telecommunication facilities		
B7.5	Ablution facilities		
B8.0	**Prime cost amounts**		
B8.1	Responsibility for prime cost amounts		
B9.0	**Attendance on N/S subcontractors**		
B9.1	General attendance		
B9.2	Special attendance		
B9.3	Commissioning – fuel, water and electricity		
B10	**Financial aspects**		
B10.1	Statutory taxes, duties and levies		
B10.2	Payment for preliminaries		
B10.3	Adjustment of preliminaries		
B10.4	Payment certificate cash flow		
B11.0	**General**		
B11.1	Protection of the works		
B11.2	Protection / isolation of existing / sectionally occupied works		
B11.3	Security of the works		
B11.4	Notice before covering work		
B11.5	Disturbance		
B11.6	Environmental disturbance		
B11.7	Works cleaning and clearing		
B11.8	Vermin		
B11.9	Overhand work		
B11.10	Instruction manuals and guarantees		
B11.11	As built information		
B11.12	Tenant installations		
B12.0	**Schedule of Variables**		
B12.1	Schedule of variables		

	SECTION C: SPECIFIC PRELIMINARIES			
C1.0	Contract drawings			
C2.0	General preambles			
C3.0	Trade names			
C4.0	Security check of personnel			
C5.0	HIV / AIDS awareness			
C5.1	Awareness champion			
C5.2	Awareness workshops			
C5.3	Posters, booklets, videos, etc			
C5.4	Access to condoms			
C5.5	Monitoring			
C6.0	Occupational Health and Safety Act			
C7.0	Contract Price Adjustment Provision			
C8.0	Site Instructions			
C9.0	Warranties for material and workmanship			
C10.0	Co-operation of contractor for cost management			
C11.0	Confidentiality			
C12.0	Testing of windows for watertightness			
C13.0	Contractor access			
C14.0	Pricing of bills of quantities			
C15.0	Costs of claims			
	SECTION 1 **PRELIMINARIES**			
	CARRIED TO FINAL SUMMARY	**R**		

SUBTOTALS:	R	C
Category: Fixed R		
Category: Value R		
Category: Time R		

	Unit	Quantity	Rate	Amount

BILL NO. 1

ALTERATIONS

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

The tenderer is referred to SANS 10400 for full details of performance and specification requirements. All products and workmanship shall be in compliance with the relevant sections of SANS and approved accordingly.

SUPPLEMENTARY PREAMBLES

View site

Before submitting his tender the contractor 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

Damage to existing finishes:

The Contractor will be held responsible for all damage, however caused, to existing finishes and fittings etc. and he must make good all damage at his own expense to the approval of the Principal Agent.

Carried to Collection **R**

	Unit	Quantity	Rate	Amount
Breaking down, demolition and alteration activities and tasks, hacking off of existing plaster, etc. is to be executed with care so as to prevent damage to remaining floor and wall surfaces and finishes (where these are to be retained). Tenders will be deemed to include allowance for any necessary protection of existing surfaces and structures as may be necessary to effect the above, as the cost of repairing damage to existing surfaces and structures will be solely for the Contractors account.				
Responsibility for site:				
The contractor is to note that upon possession of the site by himself, and extending until practical completion is achieved, he is solely responsible for the site, site security, general upkeep and cleaning of the site and all other responsibilities in maintaining a construction site in conformance with but not limited to, the Construction Regulations 2003, all local by-laws, all user client regulations, and all Client regulations and procedures, notwithstanding any partial occupation/ usage by the school population. Tenderers are therefore urged to study all available material and to investigate fully the site and areas contiguous to the site, in order to determine the range and extent of responsibility. No additional monetary and/or time claims will be entertained in respect of the above.				
Explosives				
No explosives whatsoever may be used for demolition purposes unless otherwise stated				
General				
Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent				
Doors, fanlights, fittings, frames, linings, etc. which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc., and easing, oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately				
Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.				
Carried to Collection			**R**	

	Unit	Quantity	Rate	Amount
Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing				
With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc., shall be levelled and prepared for raising of brickwork				
Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary				
The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)				
Removal of materials:				
Where removal is included in the heading, sub-heading or item description, prices shall be deemed to include for the necessary costs in removal and appropriate disposal of materials including but not limited to labour, transportation and disposal costs. No further claims in this regard will be entertained.				
Removal of asbestos material:				
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 disposing of waste water resulting from cleaning operations, etc.				
The following shall apply in respect of asbestos removal				
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 Regulation 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.				
Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	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 circumtances 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 occuring, 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 the items for removal of asbestos material. No further claims in this regard will therefore be entertained.				
	TEMPORARY BARRIERS AND SCREENS				
	Temporary barriers, screens, etc. including removal				
1	1.8m High standard gumpole, galvanised mild steel mesh and shadecloth fence hoarding with all materials securely fixed to each other around buildings externally under construction including all necessary gates etc, installation and rotation of the temporary protection throughout the contract period as per the construction programme.	m	473		
	Un/A 473				
	REMOVAL OF EXISTING WORK				
	Breaking up and removing unreinforced concrete				
2	Steps	m³	26		
	H 26				
3	Ramps	m³	9		
	H 9				
	Breaking up and removing reinforced concrete, including cutting off and removing reinforcement				
4	Ramps	m³	15		
	0 15				
5	Surface bed	m²	288		
	H 288				
6	Breaking down one brick wall in beamfilling	m²	98		
	H 98				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Taking out and removing doors, windows, etc., including thresholds, sills, etc. (building up openings and making good finishes elsewhere)				
7	Timber single door and steel frame not exceeding 2,5m²	No	66		
	H 5 G 4 F 6 D 7 A 5 B 4 C 2 E 6 K 14 I 4 L 4 M 4 GH 1				
8	Glazed steel window not exceeding 2,5m²	No	175		
	H 32 G 14 F 28 D 20 A 21 B 12 C 20 E 20 K 8				
	Note: Tenderers are referred to the supplementry preambles when pricing the following item (removal of asbestos)				
	Taking down and removal of Asbestos by Specialist				
9	Asbestos roof sheets including all timber purlins, fixings, etc.	m²	2 843		
	H 387 G 233 F 420 D 420 A 335 B 224 E 420 I 94 L 109 M 122 GH 79				
10	Asbestos fascias and barge boards including fixings.	m	755		
	H 88 G 66 F 100 D 98 A 84 B 64 C 13 E 100 J 13 K 13 I 20 L 27 M 43 GH 26				
	If the item below is not priced it is deemed to form part of the OHS cost in the preliminaries				
11	Issue of certificate of compliance by registered AIA appointed by your asbestos disposal and removal subcontractor, for the safe removal of asbestos contained products before the work on site commences	Item			
	I 1				
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc				
12	Double pitched timber roof truss with clear span between walls 4000mm - 5500mm long and approximately 1600mm high	No	5		
	K 1 L 2 M 2				
13	Double pitched timber roof truss with clear span between walls 2000mm - 3000mm long and approximately 1600mm high	No	1		
	GH 1				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
14	Double pitched timber roof truss with clear span between walls 9000mm - 10000mm long and approximately 1600mm high	No	63		
	H 9 G 4 F 9 D 9 A 7 B 4 E 9 J 9 K 3				
15	Take out and remove roofing drive screws or hook bolts and replace with 19mm round hot dip galvanised washer with rubber gasket (approximately 7 fixings per square metre of roofing).	m²	418		
	H 258 G 160				
16	Gypsum plasterboard ceilings, including cornices, timber brandering, etc.	m²	234		
	C 234				
17	uPVC gutters including fixings.	m	582		
	H 66 G 34 F 66 D 66 A 50 B 32 C 49 E 66 J 75 K 24 I 11 L 18 M 18 GH 7				
18	uPVC downpipes including fixings.	m	492		
	G 18 F 42 D 42 A 30 B 18 C 114 J 168 K 18 I 12 L 12 M 12 GH 6				
	TEMPORARY ROOF PROTECTION				
	The Contractor will be held responsible for all damage, howsoever caused, to finishes inside rooms where the existing roof coverings have been removed and he must make good all damage at his own expense to the approval of the Employer.				
19	Cover and maintain existing roofs in a perfectly watertight condition during alterations by means of heavy tarpaulins properly secured and maintained in position to the approval of the Employer and make good all work damaged or disturbed after completion (measured on flat).	m²	380		
	F 380				
	Taking out and removing ironmongery				
20	Remove existing chalkboards approximately 4800 x 1200mm high including fixings, etc., and cart off site	No	34		
	H 6 G 4 F 5 D 6 A 4 B 4 C 5				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Hacking up/off and removing granolithic, screeds, plaster, etc. from concrete or brickwork and preparing surfaces for new screed, plaster, tile finishes, etc.				
21	25mm Screed from floors	m²	410		
	H 48 G 24 F 48 D 84 B 24 C 35 E 48 J 48 K 17 I 6 L 12 M 12 GH 4				
22	Internal plaster from walls and columns	m²	406		
	H 406				
	Taking out and removing piping, sanitary fittings, etc., including cutting off as necessary, disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)				
23	Taking out and removing plastic pedestal WC with footpiece complete with seat and lid screwed	No	18		
	K 12 I 1 L 1 M 4				
24	Taking out and removing plastics urinal, overall size 350 x 320 x 470mm high plugged and screwed to wall with galvanised screws and brackets	No	2		
	K 2				
25	Taking out and removing wash hand basin, including short lengths of piping, etc.	No	10		
	K 6 I 1 L 1 M 2				
26	Stainless steel sink and taps including disconnecting all connections	No	1		
	B 1				
27	PVC piping not exceeding 50mm diameter including fixings.	m	95		
	I 31 L 32 M 32				
28	PVC piping exceeding 50mm and not exceeding 100mm diameter including fixings.	m	83		
	I 28 L 28 M 27				
	PREPARATORY WORK TO EXISTING SURFACES				
	Preparatory work				
29	Hacking faces of existing face brickwork to receive plaster	m²	185		
	J 185				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
30	Making good defects in existing screeded floors with 'Pavelite' or other approved	m²	2 146		
	H 240 G 136 F 272 D 272 A 204 B 120 C 199 E 272 J 273 K 94 I 10 L 20 M 31 GH 3				
	MAKING GOOD OF FINISHES, ETC				
	Making good floor finishes				
31	Patch vinyl floors where missing including polishing	m²	376		
	C 70 J 304 GH 2				
32	Clean existing vinyl tiles including re-polishing of tiles	m²	1 179		
	C 160 J 1013 GH 6				
	Making good brickwork				
33	Making good existing external brickwork including carefully saw cutting the brickwork on both sides of cracks for a depth of 15mm and thoroughly remove brickwork and plaster from saw cuts. Thereafter, fill the resultant widened crack with "Epidermix 318" as required and according to manufacturers instructions	m²	327		
	H 28 G 28 F 28 D 28 A 28 B 28 E 28 K 28 I 25 L 25 M 25 GH 28				
34	Making good existing internal brickwork including carefully saw cutting the brickwork on both sides of cracks for a depth of 15mm and thoroughly remove brickwork and plaster from saw cuts. Thereafter, fill the resultant widened crack with "Epidermix 318" as required and according to manufacturers instructions	m²	285		
	H 20 G 21 F 21 D 21 A 21 B 21 C 21 E 21 J 21 K 21 I 19 L 19 M 19 GH 19				
	Making good External cement plaster				
35	Walls in patches	m²	610		
	H 96 G 48 F 96 D 96 A 63 B 48 E 96 I 12 M 47 GH 8				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Making good internal cement plaster				
36	Walls in patches	m²	817		
	H 96 G 48 F 96 D 96 A 72 B 48 C 70 E 96 J 96 K 33 I 12 L 23 M 23 GH 8				
	Making good existing steel windows				
37	Make good existing glazed steel window approximately 900mm x 1200mm high including sanding down thoroughly, apply metal primer and two coats gloss enamel paint, replacing broken glazing, overhauling, adjusting and servicing existing ironmongery to leave complete unit in a perfect condition	No	89		
	G 12 F 24 D 18 A 19 B 10 K 6				
38	Make good existing glazed steel window approximately 1500mm x 1700mm high including sanding down thoroughly, apply metal primer and two coats gloss enamel paint, replacing broken glazing, overhauling, adjusting and servicing existing ironmongery to leave complete unit in a perfect condition	No	86		
	H 28 D 20 A 18 E 20				
	Making good existing Roof trusses				
	Repairs to Bottom Chord:				
39	Make good existing timber roof truss previously taken down, of tie beam span approximately 7000mm - 8000mm between walls and approximately 1600mm high at apex, including carefully cutting out and removing sections of damaged 76 x 114mm bottom chord, replacing with new including bolting new section to old using approved galvanised mild steel bolts, washers, etc., replacing all bottom chord fixings, gang nails, etc. (whether damaged or not), sanding down and sealing entire truss to leave in a perfect condition, including reinstating in position as approved by the Engineer.	No	263		
	H 41 G 20 F 41 D 41 A 31 B 19 E 41 I 5 L 9 M 9 GH 6				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Repairs to rafters:				
40	Make good existing timber roof truss previously taken down, of tie beam span approximately 9000mm - 10000mm between walls and approximately 1600mm high at apex, including carefully cutting out and removing sections of damaged 76 x 114mm rafters, replacing with new including bolting new section to old using approved galvanised mild steel bolts, washers, etc., replacing all rafter fixings, gang nails, etc. (whether damaged or not), sanding down and sealing entire truss to leave in a perfect condition, including reinstating in position as approved by the Engineer.	No	263		
	H 45 G 20 F 41 D 41 A 31 B 19 E 41 I 5 L 9 M 9 GH 2				
	Repairs to king post:				
41	Make good existing timber roof truss previously taken down, of tie beam span approximately 9000mm - 10000mm between walls and approximately 1600mm high at apex, including carefully cutting out and removing sections of damaged 76 x 76mm king post, replacing with new including bolting new section to old using approved galvanised mild steel bolts, washers, etc., replacing all king post fixings, gang nails, etc. (whether damaged or not), sanding down and sealing entire truss to leave in a perfect condition, including reinstating in position as approved by the Engineer.	No	263		
	H 45 G 20 F 41 D 41 A 31 B 19 E 41 I 5 L 9 M 9 GH 2				
	Repairs to Bracings:				
42	Make good existing timber roof truss previously taken down, of tie beam span approximately 9000mm - 10000mm between walls and approximately 1600mm high at apex, including carefully cutting out and removing sections of damaged 76 x 52mm queen posts and intermediate and diagonal bracing and supports, replacing with new including bolting new section to old using approved galvanised mild steel bolts, washers, etc., replacing all king post fixings, gang nails, etc. (whether damaged or not), sanding down and sealing entire truss to leave in a perfect condition, including reinstating in position as approved by the Engineer.	No	263		
	H 45 G 20 F 41 D 41 A 31 B 19 E 41 I 5 L 9 M 9 GH 2				
	Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	Repairs to Queen posts:				
43	Make good existing timber roof truss in position, of tie beam span approximately 9000mm - 10000mm between walls and approximately 1600mm high at apex, including carefully cutting out and removing sections of damaged 76 x 52mm queen posts and/or intermediate and diagonal bracing and/or supports, replacing with new including bolting new section to old using approved galvanised mild steel bolts, washers, etc., replacing all queen posts and intermediate and diagonal bracing and supports fixings, gang nails, etc. (whether damaged or not), sanding down and sealing entire truss to leave in a perfect condition, including reinstating in position as apporved by the Engineer.	No	263		
	H 41 G 24 D 45 A 35 B 23 E 45 I 18 L 13 M 13 GH 6				
	REPAIRS TO EXISTING WORK				
44	Repairs to existing surface beds, including filling up cracks with an approved filler, stitching as required, etc.	m²	320		
	H 224 G 96				
	TEMPORARY PARKHOMES				
	Rates for parkhomes to include standard windows, burglar bars, curtains and tracks, two tier steps for access, light fittings and black boards				
	"M-Projects" or other approved temporary parkhomes				
	Provide temporary parkhomes on site for educational facilities during the construction phase as herewith mentioned, including levelling, positioning on site and connection to an electrical supply including issuing compliance certificates				
	Parkhomes are to be standard classroom size minimum 7 x 7m or nearest size				
45	Provision of parkhome for a period of 18 months	No	4		
	I 4				
46	Provision of two tier steps for 18 months	No	4		
	0 4				
47	Provision of electrical compliance certificates for parkhomes	No	4		
	0 4				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
48	Transport to and from site of parkhomes as per distance between supplier and site per return trip 0 4	Return tri	4		
	Carried to Collection			R	

		Amount
BILL NO. 1 **ALTERATIONS** **COLLECTION**		
	Page No	
Brought Forward from Page	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 2

EARTHWORKS

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Nature of ground

The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'

Excavation for working space in rock

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

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

Descriptions for carting away of materials are deemed exclusive of bulking i.e. the measurement of same for payment will be based on the volume of earth removed based on the approved design, and not the volume of earth finally removed from site.

Carried to Collection **R**

		Unit	Quantity	Rate	Amount
	Filling				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material				
	Testing				
	Prices for filling are to include for all necessary density tests in accordance with SABS 1200D				
	EXCAVATION ETC				
	Excavation in earth not exceeding 2m deep				
1	Underpinning in 1000mm alternating sections under existing foundations.	m³	100		
	H 100				
2	Reduced levels under floors	m³	46		
	H 46				
	Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 90% Mod AASHTO density				
3	Exceeding 1,5m deep and not exceeding 1,5m deep, etc. 300mm away from excavated face	m²	300		
	H 300				
	Extra over trench and hole excavations in earth for excavation in				
4	Soft rock	m³	10		
	H 10				
	Extra over all excavations for carting away				
5	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m³	50		
	H 50				
	Risk of collapse of excavations				
6	Sides of trench and hole excavations exceeding 1,5m deep	m²	300		
	H 300				
	Keeping excavations free of water				
7	Keeping excavations free of all water other than subterranean water	Item			
	I 1				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 98% Mod AASHTO density				
8	Backfilling to trenches, holes, etc.	m³	50		
	H 50				
	Imported G5 filling supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:				
9	Under floors, steps, pavings, etc.	m³	52		
	0 52				
	Compaction of surfaces				
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 98% Mod AASHTO density	m²	310		
	I 310				
	Prescribed density tests on filling				
11	Modified AASHTO Density test	No	5		
	I 5				
	SOIL POISONING				
	Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:				
12	To bottoms and sides of trenches	m²	310		
	H 310				
	Soil Poisoning Certificate				
13	Issue of Soil Poisoning Certificate by registered and authorised entity.	Item			
	Un/A 1				
	Carried to Collection			R	

		Amount
BILL NO. 2 **EARTHWORKS** **COLLECTION**		
	Page No	
Brought Forward from Page	14	
	15	
	16	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 3

CONCRETE, FORMWORK AND REINFORCEMENT

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under clause 7 Tests of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)

Formwork

Descriptions of formwork shall be deemed to include use and waste only (except where described as 'left in' or 'permanent'), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	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 soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high 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				
	REINFORCED CONCRETE CAST ON/IN FORMWORK				
	25MPa/19mm concrete				
1	Surface beds cast in panels on waterproofing	m³	43		
	H 43				
	30MPa/19mm concrete				
2	Steps	m³	11		
	0 11				
3	Ramp	m³	9		
	0 9				
4	Underpinning in 1000mm alternating sections under existing foundations.	m³	50		
	H 50				
	TEST CUBES				
	Test cubes				
5	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	60		
	H 12 0 48				
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a steel float				
6	Surface beds, slabs, steps etc.	m²	340		
	H 272 0 68				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP WORK GROUP NO. 111)				
	Rough formwork to sides not exceeding 300mm high or wide :				
7	Steps	m	83		
	0 83				
	MOVEMENT JOINTS ETC				
	Expansion joints with 12mm bitumen impregnated softboard between vertical concrete and brick surfaces				
8	Not exceeding 300mm high	m	780		
	0 780				
	Expansion joints with 12mm bitumen impregnated softboard between vertical concrete surfaces, including necessary formwork				
9	Not exceeding 300mm high through slabs	m	35		
	0 35				
	Saw-cut joints				
10	12 x 3mm Saw-cut joints in top of concrete	m	14		
	0 14				
	REINFORCEMENT (CPAP WORK GROUP NO. 114)				
	Mild steel reinforcement to structural concrete work				
11	Bars of varying diameter	Tonnes	0.90		
	0 0.9				
	REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)				
	Fabric reinforcement				
12	Type 193 fabric reinforcement in concrete surface beds etc.	m²	340		
	H 272 0 68				
	Carried to Collection			R	

		Amount
BILL NO. 3		
CONCRETE, FORMWORK AND REINFORCEMENT		
COLLECTION		
	Page No	
Brought Forward from Page	18	
	19	
	20	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 4

MASONRY

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

BRICKWORK

Sizes in descriptions

Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick

Hollow walls

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

Bagged and sealed walls

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 bitumen emulsion waterproofing coating

Face bricks

Bricks shall be ordered timeously to obtain uniformity in size and colour

Carried to Collection **R**

		Unit	Quantity	Rate	Amount
	Pointing				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.				
	BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of NFP bricks (14 MPa nominal compressive strength) in class II mortar				
1	One brick walls in beamfilling	m²	98		
	H 17 G 8 F 17 D 8 A 12 B 8 E 17 I 2 L 4 M 4 GH 1				
2	One brick walls	m²	41		
	H 41				
	2,5mm Galvanised brick reinforcement				
3	150mm Wide reinforcement built in horizontally	m	560		
	H 232 G 32 F 68 D 32 A 52 B 32 E 68 I 8 L 16 M 16 GH 4				
	Galvanised wire ties etc.				
4	4mm Diameter roof tie 2m girth bent double, with one end built into brickwork and other end fixed to timber	No	226		
	H 226				
	FACE BRICKWORK				
	Brick-on-edge header course copings, sills, etc. of "Corobrik Firelight Satin" or other approved face bricks pointed with recessed joints on all exposed surfaces:				
5	220mm Wide sills set sloping and slightly projected	m	325		
	H 325				
	FIBRE-CEMENT WINDOW SILLS				
	Fibre-cement Sills				
6	Fibre-cement sill "Everite Nutec" or other approved, (Product Code: 031-509) built into 230mm wall, with and including fixing lugs and self-tapping screws	m	325		
	H 325				
	Carried to Collection			R	

			Amount
BILL NO. 4 **MASONRY** **COLLECTION**			
		Page No	
	Brought Forward from Page	22	
		23	
	Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 5

WATERPROOFING

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Waterproofing

Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs

DAMPPROOFING OF WALLS AND FLOORS

One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)

1	In walls	m²	10		
	H 10				

One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape

2	Under surface beds	m²	288		
	H 288				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	SEALING STRIPS, JOINT SEALANTS, ETC				
	Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
3	12 x 3mm In expansion joints in floors including raking out expansion joint filler as necessary	m	780		
	H 780				
	Carried to Collection			R	

		Amount
BILL NO. 5 **WATERPROOFING** **COLLECTION**		
	Page No	
Brought Forward from Page	25	
	26	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 6

ROOF COVERINGS

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Sheeting:

The roof sheeting shall be 0.55mm thick full hard IBR profile galvanised mild steel or other approved roof sheets, roll formed in continuous lengths and cut to length by a pneumatic cut-off process. A certificate verifying compliance to all current SABS codes in respect to galvanised sheeting shall be issued by the manufacturer.

Finishing of sheets:

The paint finish shall be colour plus on one side and standard grey finish on the other side

Fixing of sheets:

The roof sheeting shall be laid in long lengths, narrow flutes outermost, with single flute sidelaps facing away from prevailing wind. All sheets shall be secured to timber purlins utilising approved roofing screws in strict accordance to the manufacturers instructions. Sheeting is to be drilled and not punched, with side laps filled with approved Mastic sealant. Sheeting is to protrude a minimum of 50mm from ends of rafters

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Flashings: Flashings shall be approved by the manufacturer and fixed to the sheeting with approved fixings. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Flashing flanges shall be notched to the sheet profile where necessary. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surface in order to prevent steel spatter from penetrating colour coated areas. **Erection:** Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, shall be replaced, at no additional cost to the Contract **Safety:** 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. **Guarantee:** The manufacturer shall comply with ISO9002 Quality Management System. Sheeting shall be laid in strict accordance with manufacturers specifications by an approved contractor. A written and approved five (5) year guarantee of site workmanship and water tightness shall be issued after final inspection of roof sheets by the manufacturer. **PROFILED METAL SHEETING AND ACCESSORIES** **0.55mm Thick galvanized continuous IBR profile metal sheeting with 'Colour Plus' finish on one side and standard grey finish on the other side fixed to timber purlins with and including approved roofing screws with 19mm round galvanised washers and rubber gasket (timber purlins measured elsewhere)**				
1	Roof covering with pitch not exceeding 25 degrees H 390 G 236 F 423 D 420 A 338 B 227 E 423 I 94 L 103 M 116 GH 72	m²	2 842		
	Carried to Collection			R	

Bill No. 6
Roof Coverings

		Unit	Quantity	Rate	Amount
2	Ridge cappings 462mm girth	m	273		
	H 38 G 22 F 38 D 38 A 30 B 21 E 38 I 11 L 14 M 14 GH 9				
3	Hot dip galvanised metal polyclosures to under ridge capping and eaves	m	1 088		
	H 152 G 88 F 152 D 152 A 120 B 84 E 152 I 42 L 56 M 55 GH 35				
4	Sondor IBR pattern polyclosure under ridge capping and eaves	m	1 088		
	H 153 G 88 F 152 D 152 A 120 B 84 E 152 I 42 L 56 M 55 GH 34				
5	Extra over roof sheet for fixing every crown at eaves.	m	546		
	H 71 G 45 F 77 D 77 A 61 B 43 E 77 I 21 L 28 M 28 GH 18				
6	Extra over roof sheeting for fixing every crown at ridge.	m	546		
	H 71 G 45 F 77 D 77 A 61 B 43 E 77 I 21 L 28 M 28 GH 18				
	Sundries				
7	"Teco" or other equally approved galvanised two way "hurricane" clips	No	9 024		
	H 1462 G 832 F 1440 D 1350 A 1120 B 690 E 1440 I 162 L 208 M 260 GH 60				
	SHEET METAL FLASHINGS, LININGS, COPINGS, ETC				
	0,6mm Galvanised sheet steel				
8	Side wall flashing 600mm girth and two times bent along girth and notched on site to suit roof profile	m	434		
	H 66 G 34 F 66 D 66 A 50 B 32 E 66 I 11 L 18 M 18 GH 7				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	ROOF AND WALL INSULATION (CPAP WORK GROUP NO. 122)				
	Sisalation "GR 430 Residential - MMRI 00003BA" multi-layered reinforced single-sided aluminium foil sheeting in accordance with SANS 1381-4 with a mass of not less than 163g/m² and a Class I fire rating in accordance with SANS 10177-3				
9	Insulation sheeting laid taut over timber purlins (timber purlins elsewhere measured) and fixed concurrent with roof covering with minimum 150mm stapled laps including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m²	2 700		
	H 410 G 258 F 443 D 410 A 359 B 247 E 443 I 26 L 41 M 52 GH 11				
	Carried to Collection			R	

		Amount
BILL NO. 6 **ROOF COVERINGS** **COLLECTION**		
	Page No	
Brought Forward from Page	28	
	29	
	30	
	31	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 7

CARPENTRY AND JOINERY

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Fixing

Items described as 'nailed' shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete

Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as 'bolted', the bolts have been given elsewhere

Joinery

Descriptions of frames shall be deemed to include frames, transomes, rails, etc.

Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts

Decorative thermosetting plastic laminate covering

Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish

Carried to Collection R

	Unit	Quantity	Rate	Amount
Prefabricated plate nailed timber roof truss contruction:				
NOTE: The following is applicable in respect of roof trusses:				
The Contractor shall allow for all items deemed necessary for the proper design, fabrication and erection of the roof trusses, bracing, etc.				
The materials and design of the roof construction shall be in accordance with the relevant edition of the South African Bureau of Standards (SABS) and the Standard Building Regulations (SBR).				
The design of trusses and permanent bracing shall be carried out under the control of a registered professional engineer who shall provide the requisite certificate of stability on completion of the roof contruction. All calculations and drawing, including a key plan of each building showing the position of each type of member shall be submitted timeously to the consulting Structural Engineer for his approval before fabrication is commenced.				
Prices are to include for the provision of adequate temporary bracing during construction to the approval of the Departmental Engineer.				
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect and/or the site before fabrication commences.				
Trusses must be designed in accordance with the environmental conditions of the area.				
The following roof trusses are to a pitch not exceeding 25 degrees (unless otherwise stated) spaced at approximately 1200mm centres and are to receive 0,55mm thick IBR-profile roof sheets on timber purlins and a nailed up ceiling under.				
PRETREATMENT OF TIMBER				
This service falls within the areas defined in the National Building Regulations for Treatment of Timber against insect pest affecting softwood fixed permanently in all buildings.				
The Regulations require that timber be treated in terms of SABS 05 and to comply with SABS 457, 753, 754 or 1288 as relevant. Tenderers are to make allowance in their rates.				
Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	PREFABRICATED ROOF TRUSSES, ETC.				
	All timber roof trusses including nail-plated trusses and bolted trusses with lapped members must comply with SABS 0243 : THE DESIGN, MANUFACTURE AND ERECTION OF TIMBER TRUSSES.				
	Prices for roof trusses are to include for all temporary bracing and supports and for all necessary top and bottom chord bracing, wind bracing and runners where required and overhanging ends are to be wrot faced all round.				
	Plate nailed timber roof truss contruction:				
	The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres. Roof covering is 0,55mm thick IBR-profile roof steel on timber purlins. Ceilings are plasterboard on softwood brandering. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the Architect and/or the site before design or fabrication commences.				
	The following in plate nailed timber roof trusses with pitch not exceeding 25 degrees from an approved supplier, delivered to site, hoisted into position, fixed and braced on timber wall plates to SABS 0243:				
1	Design, supply and install roof truss system size complete in accordance with the Standard Building Regulations, including cross battens at hips, valleys, etc. all in accordance with the relevant specifications to building size 9 000mm x 10 000mm on plan and with clear span between walls approximately 2 560mm (approximate on flat 288m2) (17.5 degree pitch)	No	1		
	H 1				
2	Supply and install roof truss size complete in accordance with the Standard Building Regulations, including all timber members, cross battens at hips, valleys, etc. all in accordance with the relevant specifications to tie beam span approximately 9000mm - 10000mm between walls and approximately 1600mm high at apex (Pitch not exceeding 25 degrees)	No	63		
	H 19 G 5 F 9 D 9 A 7 B 5 E 9				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
3	Supply and install roof truss size complete in accordance with the Standard Building Regulations, including all timber members, cross battens at hips, valleys, etc. all in accordance with the relevant specifications to tie beam span approximately 2000mm - 5000mm between walls and approximately 1600mm high at apex(Pitch not exceeding 25 degrees)	No	1		
	GH 1				
	Sawn softwood				
4	76 x 52mm Purlins	m	3 724		
	H 460 G 203 F 459 D 426 A 331 B 187 C 322 E 459 J 526 K 123 I 45 L 72 M 89 GH 22				
5	114 x 38mm Wall plates	m	299		
	H 6 G 3 F 6 D 6 A 5 B 32 C 47 E 64 J 64 K 22 I 8 L 16 M 15 GH 5				
	Sundries				
6	Two coats "ABE Provonite" or other equally approved coal tar paint on roof timbers at eaves and verges	m²	355		
	H 40 G 21 F 40 D 40 A 30 B 21 C 30 E 40 J 45 K 15 I 7 L 11 M 11 GH 4				
	The following certificates are required per block				
7	Provide manufacture and installation certificates (TR1 and TR2), to be supplied by the contractor and approved by the Consulting Structural Engineer after manufacture and installation respectively	Item			
	I 1				
	ROOFS ETC				
	Sawn softwood				
8	38 x 114mm timber fixed to ends of timber trusses	m	582		
	H 97 G 97 F 97 D 97 A 97 B 97				
9	50 x 75mm timber fixed to ends of timber purlins	m	174		
	H 29 G 29 F 29 D 29 A 29 B 29				
	Carried to Collection			R	

Bill No. 7

Carpentry And Joinery

		Unit	Quantity	Rate	Amount
10	Install 38 x 114mm Timber cross bracings fixed to existing timber roof trusses at rafter, using galvanised mild steel bolts, washers, etc. including sanding down and sealing entire trusses to leave in a perfect condition, including reinstating in position as approved by the engineer.	m	295		
	H 54 G 37 F 54 D 27 A 46 B 36 E 9 I 7 L 10 M 10 GH 5				
	EAVES, VERGES, ETC				
	"Everite Nutec" or other equally approved plain fibre-cement socketless fascias and barge boards				
11	80 x 200mm Angle section barge boards (Product Code: 527-731) including galvanised steel H-Profile jointing strips (Product Code: 655-187) and fix with hot dip galvanised screws and washes	m	175		
	H 19 G 19 F 21 D 19 A 21 B 19 E 21 I 9 L 9 M 12 GH 6				
12	12 x 225mm (Product Code: 041-702) medium density Fascia boards including galvanised H-Profile jointing strips (Product Code: 685-187) tide with and including hot dipped galvanised screws and washes	m	584		
	H 82 G 49 F 81 D 81 A 65 B 47 E 81 I 26 L 65 GH 7				
	SKIRTINGS				
	Wrought meranti				
13	19 x 76mm Arris rounded and ploughed at back skirting board plugged and screwed to wall with and including 19mm quadrant planted on	m	90		
	D 25 A 20 J 45				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	DOORS				
	Wrought meranti doors hung to steel frame (Steel frame elsewhere measured)				
14	44mm Thick framed, ledged and braced battened door overall size 813mm x 2032mm high formed of 44 x 110mm styles and top rail, 22 x 150mm middle ledge, 22 x 225mm bottom ledge, 22 x 110 braces and and filled in with 22mm thick "V" jointed boarding on both sides	No	66		

H	6	G	4	F	6
D	7	A	5	B	4
C	2	E	6	K	15
I	4	L	2	M	4
GH	1				

Carried to Collection		R	

		Amount
BILL NO. 7 **CARPENTRY AND JOINERY** **COLLECTION**		
	Page No	
Brought Forward from Page	33	
	34	
	35	
	36	
	37	
	38	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 8

CEILINGS PARTITIONS AND ACCESS FLOORING

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Fixing

Items described as 'nailed' shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete

Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as 'bolted', the bolts have been given elsewhere

Ceilings

Unless otherwise described ceilings shall be deemed to be horizontal

Bulkheads

Bulkheads are defined as those portions of ceilings which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal services or to create architectural features

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 900mm. Where these dimensions are more than 900mm such portions of ceilings have been included in the appropriate general items of ceilings				
	Unless otherwise described bulkheads shall be deemed to be horizontal along the length				
	Steel components				
	All steel components for ceilings, partitions, etc. are to be galvanised in accordance with SANS 121				
	CEILING TIMBERS, BEADS, INSULATION, ETC				
	"Aerolite" or equally approved insulation				
1	100mm Thick insulation in blanket from closely fitted and laid on top of brandering between roof timbers etc.	m²	2 700		
	H 548 C 494 E 320 J 598 K 740				
	NAILED-UP CEILINGS				
	9mm Gypsum plasterboard ceiling fixed print side up with 32mm galvanised semi-clout nails at 150mm centres with galvanised H-profile metal cover strips, all in strict accordance with the manufacturers instructions:				
2	Ceilings including 38 x 50mm sawn softwood brandering at 450mm centers in both directions, complete with 38 x 50mm hanger brackets nailed to trusses and nailed to brandering as extra support system.	m²	522		
	H 288 C 234				
3	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around	No	10		
	H 5 C 1 J 4				
	Gypsum plasterboard cornice				
4	75mm Coved cornices plugged	m	411		
	H 136 C 126 J 107 K 42				
	Carried to Collection			R	

		Amount
BILL NO. 8		
CEILINGS PARTITIONS AND ACCESS FLOORING		
COLLECTION		
	Page No	
Brought Forward from Page	40	
	41	
Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 9

FLOOR COVERINGS

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

FLOOR COVERINGS, WALL LININGS, ETC

Fixing

Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc

FLOOR COVERINGS

300 x 300 x 2mm "Marley FloorworX Floorflex" semi flexible vinyl tiles to SABS 581:1992 laid in approved adhesive and to manufacturers instructions

1	On floors					m²	1 792	
	H	288	G	160	F	320		
	D	320	A	240	B	144		
	E	320						

POLISH, SEALERS, ETC

Polish

2	Thoroughly clean down and wash, strip with an ammonia based stripping agent and apply three coats of approved polyurethane sealer in strict accordance with the manufacturers instructions.					m²	1 792	
	H	288	G	160	F	320		
	D	320	A	240	B	144		
	E	320						

Carried to Summary **R**

	Unit	Quantity	Rate	Amount

BILL NO. 10

IRONMONGERY

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Proprietary items

Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc. clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration

Finishes to ironmongery

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded

Carried to Collection **R**

		Unit	Quantity	Rate	Amount
	HINGES, BOLTS, ETC.				
	"Union" or other approved				
1	100mm Galvanised and welded loose pin hinges	No	132		
	H 14 G 7 F 11 D 13 A 9 B 7 C 7 E 11 K 27 I 7 L 7 M 7 GH 5				
	LOCKS				
	"Union" or other approved				
2	Solid Art (Product Code: 390/313) Four-lever lockset with and including Satin Chrome plated handles	No	61		
	H 6 G 4 F 6 D 5 A 3 B 2 C 4 E 4 K 14 I 4 L 4 M 4 GH 1				
	SUNDRIES				
	"Geze" or other approved				
3	38mm Diameter rubber door stop plugged and screwed to floor with a 50mm long brass screw	No	61		
	H 6 G 4 F 6 D 5 A 3 B 2 C 4 E 4 K 14 I 4 L 4 M 4 GH 1				
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC.				
	"Vitrex System 1000" or other equally approved vitreous enamelled Chalkboard:				
4	System 1000 vitreous enamel magnetic chalkboards 1140 x 2400mm long complete with aluminium chalkrail, etc, fixed adjacent to similar unit to form panel 4800mm long, including fixing to brickwork, etc	No	69		
	H 11 G 7 F 11 D 13 A 9 B 7 E 11				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	"Vitrex System 2000" or other equally approved pinning board:				
5	"Flortime Premier" carpet faced wall mounted pinning board with anodised aluminum channel surround, 1800 x 1200mm high all fixed in strict accordance with the Manufacturer's instructions.	No	34		
	H 6 G 4 F 6 D 7 A 5 B 2 E 4				
	Carried to Collection			R	

		Amount
BILL NO. 10 **IRONMONGERY** **COLLECTION**		
	Page No	
Brought Forward from Page	44	
	45	
	46	
Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 11

STRUCTURAL STEELWORK

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Descriptions

Descriptions of bolts shall be deemed to include nuts and washers

Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete

GALVINISED STEEL PURLINS, GIRTS, BRACING, POSTS ETC

Welded bracing, anti-sag rails, etc. with flat connection plates, bolted to steel

1	Angle bracing 0 1	Tonnes	1.00		
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Posts embedded in concrete				
2	Galvanised steel post including all plates, fixings, etc.	No	47		
	H 8 G 4 F 8 D 8 A 7 B 4 E 8				
	BOLTS, FASTENERS, ETC				
	Bolts and fasteners				
3	High tensile bolts (class 8.8)	Tonnes	0.50		
	0 0.5				
	Carried to Collection			R	

		Amount
BILL NO. 11 **STRUCTURAL STEELWORK** **COLLECTION**		
	Page No	
Brought Forward from Page	48	
	49	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 12

METALWORK

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Descriptions of bolts, anchors, etc.

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

Items described as 'holed for bolt(s)' shall be deemed to exclude the bolts unless otherwise described

Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres

Hot dipped galvanising:

The mass of hot dip galvanised steelwork has been calculated on the mass before galvanising and no allowance has been made for the additional mass of galvanising for which allowance must be made in pricing.

Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Drawings:				
	Tenderers are to note that where descriptions include reference to drawings, notwithstanding anything contained in the descriptions, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No additional time and/or monetary claims resulting from non-adherence to the above will be enterained.				
	STEEL BALUSTRADES				
	Welded balustrades to walkways (and stairs?)				
1	Standard ball type mild steel tubular horizontal balustrade, 1000mm high formed with 34mm diameter hollow section continuous top rail, continuous intermediate rail, bottom rail and stanchions at 1500mm centres, welded to 150 x 50 x 10mm thick base plate bolted to brickwork, including an approved epoxy grout	m	80		
	0 80				
	GALVANISED STEEL GATES, SCREENS, ETC				
	Security gates:				
2	Purpose made single hot dipped galvanised mild steel gate, 1100mm x 2125mm formed of 40 x 60 x 3mm hollow sectioned frames and midrail, filled in with 12mm solid square vertical bars at 110mm centres welded to frame and fitted with 2no. Pin type gate hinges welded to frame and pad lock plates welded to gate and plugged to walls with and including expantion joints	No	61		
	H 6 G 4 F 6 A 7 B 4 C 6 E 6 J 14 K 4 I 1 L 1 M 2				
	SUNDRY STEELWORK				
	GALVANISED PRESSED STEEL DOOR FRAMES				
	1.2mm Double rebated frames suitable for 220mm brick walls complete with 2 brass butt hinges per door leaf with straps for building in:				
3	Frame for door 813 x 2032mm high.	No	44		
	H 4 G 2 F 4 D 4 A 3 B 2 C 2 E 4 K 12 I 2 L 2 M 2 GH 1				
	Carried to Collection			R	

Bill No. 12
Metalwork

		Unit	Quantity	Rate	Amount
	GALVANISED STEEL WINDOWS, DOORS, ETC				
	'Duro Pressing' or other approved standard hot dipped galvanised school type windows fitted with and including 19mm mild steel flat bar burglar proofing to opening sections (As per architectural drawing No.1130.16 – 202):				
4	Window type 4BH over 4BH Composite (W2) 889 x 854mm high	No	6		
	A 6				
5	Window type 14BH over 9-F/LT Composite (W1) 889 x1250mm high	No	5		
	G 5				
6	Window type Composite 1400 x1100mm high	No	28		
	H 28				
	HOT DIP GALVANISED MILD STEEL POSTS				
	POSTS TO WALKWAYS :				
7	75mm Diameter x 3mm thick hot dip galvanised mild steel post approximately 3000m high fixed at top to timber beam (timber beam elsewhere mesured) with and including 80mm x 100mm x 3mm thick U-shaped top piece welded to beam and fixed at bottom with and including 100 x 100 x 3mm thick base plate four times holed for and including 4 no. 10mm diameter x 80 long expansion bolts, bolted through existing concrete walkway below.	No	84		
	0 84				
	Carried to Collection			R	

		Amount
BILL NO. 12 **METALWORK** **COLLECTION**		
	Page No	
Brought Forward from Page	51	
	52	
	53	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 13

PLASTERING

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Method

The method to be used shall be either the monolithic method or the bonded method

Preparation

For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic.

Carried to Collection R

	Unit	Quantity	Rate	Amount
Mix				
Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic.				
Panels				
Granolithic shall be laid in panels not exceeding 14m\'b2 for monolithic finishes, not exceeding 9,5m\'b2 for bonded finishes and not exceeding 6m\'b2 for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width.				
Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints				
Laying				
Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels				
Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated				
Curing, seasoning and protection				
Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.				
Colour				
Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.				
Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	SCREEDS				
	Screeds wood floated, on concrete				
1	Average 25mm thick on floors with upper surface to falls	m²	410		
	H 48 G 24 F 48 D 48 A 36 B 24 C 35 E 48 J 48 K 17 I 6 L 12 M 12 GH 4				
	INTERNAL PLASTER				
	Cement plaster, on brickwork				
2	On walls	m²	221		
	H 221				
3	On narrow widths	m²	13		
	H 1 G 1 F 1 D 1 A 1 B 1 C 1 E 1 J 1 I 1 L 1 M 2				
	EXTERNAL PLASTER				
	Cement plaster, on brickwork:				
4	On walls	m²	246		
	H 246				
5	On narrow widths	m²	13		
	H 1 G 1 F 1 D 1 B 1 C 1 E 1 J 1 K 1 I 1 L 1 M 1 GH 1				
	Carried to Collection			R	

		Amount
BILL NO. 13 **PLASTERING** **COLLECTION**		
	Page No	
Brought Forward from Page	55	
	56	
	57	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 14

PLUMBING AND DRAINAGE

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Wire gratings

Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings

Stormwater channels

Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc., and disposal of surplus material on site

French drains

Descriptions of French drains shall be deemed to include excavation, stone filling graded from 300mm diameter at bottom to 75mm diameter at top, geofabric filter blanket over stone, 300mm earth filling over and disposal of surplus material on site

Septic tanks

Descriptions of proprietary type 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 and disposal of surplus material on site

Carried to Collection			R	

	Unit	Quantity	Rate	Amount
Stainless steel basins, sinks, wash troughs, urinals, etc. Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc. shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc. shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable **Sealing of edges** Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone **uPVC pipes and fittings** Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings **uPVC pressure pipes and fittings** Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings. Pipes of 63mm 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 **High density polyethylene (HDPe) pipes and fittings** Pipes shall be type IV and of the class specified with Plasson or Alprene compression fittings **Polycop polypropylene pipes** Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with Fast-fuse heat welded thermoplastic or where so described Polylock compression fittings 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				
Carried to Collection			**R**	

	Unit	Quantity	Rate	Amount
Copper pipes				
Pipes shall be hard drawn and half-hard Maksal pipes of the class described. 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				
Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc. to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition				
Reducing fittings				
Where fittings have reducing ends or branches they are described as 'reducing' and 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				
Fixing of pipes				
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				
Paper wrapping to pipes				
Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings				
Disinfection of water pipework				
Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere)				
Densyl petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.				
Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with 25% overlaps. Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including 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				
Carried to Collection			R	

	Unit	Quantity	Rate	Amount
Laying, backfilling, bedding, etc. of pipes				
Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
Where no manufacturers' instructions exist, pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following: SABS 1200L : Medium-pressure pipelines SABS 1200LD : Sewers SABS 1200LE : Stormwater 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				
General				
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 98% 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)				
As-built drawings				
Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere)				
Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	RAINWATER DISPOSAL				
	Seamless aluminium prepainted gutters and rainwater pipes, with baked enamel finish				
1	150mm x 150mm x 0,6mm Square profile aluminium seamless roof gutters fixed to falls with brackets screwed to eaves, purlins/false timber through fibre cement fascia with galvanised screws/or bolted to fibre cement fascia or steel supporting structure with galvanised bolts/nuts and washers at 500mm centres.	m	582		
	H 66 G 34 F 66 D 66 A 50 B 32 C 49 E 66 J 75 K 24 I 11 L 18 M 18 GH 7				
2	100 x 75 x 0,6mm thick rectangular fluted Rainwater downpipes including prepainted aluminium straps fixed to walls with nail plugs and/or fixed to steel supports with self tapping screws.	m	495		
	H 42 G 18 F 42 D 42 A 30 B 90 C 30 E 42 J 126 K 9 I 6 L 6 M 6 GH 6				
3	Extra over gutter for stopped end	No	76		
	H 6 G 6 F 6 D 6 A 6 B 6 C 6 E 6 J 6 K 4 I 4 L 4 M 4 GH 6				
4	Extra over eaves gutter for drop box suitable for 150 x 150mm box gutter	No	113		
	H 14 G 6 D 28 A 10 B 6 C 10 E 14 J 14 K 3 I 2 L 2 M 2 GH 2				
5	Extra over gutter for outlet for 100 x 75mm pipe	No	113		
	H 14 G 6 F 14 D 14 A 10 B 6 C 10 E 14 J 14 K 3 I 2 L 2 M 2 GH 2				
6	Extra over rainwater pipe for bend	No	226		
	H 28 G 12 F 28 D 28 A 20 B 12 C 20 E 28 J 28 K 6 I 4 L 4 M 4 GH 4				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
7	Extra over rainwater pipe for shoe	No	113		
	H 14 G 6 F 14 D 14 A 10 B 6 C 10 E 14 J 14 K 3 I 2 L 2 M 2 GH 2				
	SANITARY PLUMBING				
	uPVC soil and vent pipes				
8	50mm Pipes	m	112		
	I 38 L 37 M 37				
9	110mm Pipes	m	37		
	I 37				
10	50mm Pipes chased into brickwork	m	43		
	I 43				
	Extra over uPVC soil and vent pipes for fittings				
11	50mm Bend	No	57		
	I 19 L 19 M 19				
12	110mm Bend	No	48		
	K 12 I 12 L 12 M 12				
13	50mm Junction	No	12		
	I 6 M 6				
14	110mm Junction	No	9		
	L 3 M 6				
	WATER SUPPLIES				
	Class 2 copper pipes with capillary couplings				
15	15mm Pipes	m	97		
	I 33 L 32 M 32				
16	15mm Pipes chased into brickwork including brown paper lagging	m	68		
	I 34 M 34				
	Extra over Class 2 copper pipes for capillary fittings				
17	15mm Fittings	No	139		
	I 47 L 46 M 46				
18	22mm Fittings	No	67		
	I 23 L 22 M 22				
	Extra over Class 2 copper pipes for brass compression fittings				
19	15mm Fittings	No	13		
	I 5 L 4 M 4				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
20	22mm Fittings I 3 M 6	No	9		
	Disinfecting				
21	Disinfecting water pipe and tank system Un/A 1	Item			
	Testing				
22	Testing water pipe system I 1	Item			
	AS BUILT DRAWINGS				
	Drawings				
23	Provision of as- built drawings I 1	Item			
	Carried to Collection			R	

		Amount
BILL NO. 14 **PLUMBING AND DRAINAGE** **COLLECTION**		
	Page No	
Brought Forward from Page	59	
	60	
	61	
	62	
	63	
	64	
	65	
Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 15

GLAZING

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Float glass

The term 'float glass' is used for monolithic annealed glass

Laminated glass

Laminated glass to have polyvinyl butyral (PVB) interlayer(s)

Certificate

Rates for glazing shall include for the relevant glazing certificates to be issued at completion of project

GLAZING TO STEEL WITH PUTTY

6.38mm safety glass:

1	Panes not exceeding 0,1m²					m²	239		
	H	43	G	22	F	43			
	D	31	A	32	B	17			
	E	51							
					Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	TOPS, SHELVES, DOORS, MIRRORS, ETC				
	6mm Silvered float glass copper backed mirrors with 3mm bevelled and polished edges, holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete				
2	Mirror 450 x 600mm high with screws	No	10		
	K 4 I 2 L 2 M 2				
	CERTIFICATES				
	Glazing Certificate				
3	Issue of AAAMSA Glass & Glazing Certificate by registered and authorised entity.	Item			
	I 1				
	Carried to Collection			R	

		Amount
BILL NO. 15 **GLAZING** **COLLECTION**		
	Page No	
Brought Forward from Page	67 68	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 16

PAINTWORK

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Propriety items or materials:

Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Head: Works.

Tenderers attention is drawn to page SP52 of the standard preambles for all trades - WB20 for all full descriptions of preparatory work to be carried out before painting commences.

SABS Specifications:

Alkali resistant plaster primer: SABS 1416

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

Zinc chromate primers for steel : SABS 679 type I

Carried to Collection **R**

	Unit	Quantity	Rate	Amount
Undercoats for paints (except emulsion paint) SABS 681 Type I				
Aluminium paint : SABS 682 Grade II				
Roof paints: SABS 683 Type B (Oil based)				
Roof paints: SABS 940 Type B (emulsion based)				
Structural steel paint : SABS 684 Type B				
Wash primer (metal etch) : SABS 723				
Varnish for interior use: SABS 887 Type I				
Emulsion paints : SABS 1227 (textured: internal/external)				
Emulsion paints : SABS 1586 (Gloss, semi gloss, Matt: internal/external)				
Calcium plumbate primer : SABS 912				
Road marking paint: SABS 5731 Part I				
PREPARATORY WORK TO EXISTING WORK				
Previously painted plastered surfaces				
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				
Previously painted metal surfaces				
Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal				
Previously painted wood surfaces				
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				
COLOURS				
Colours, etc.				
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				
Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	ON INTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats "Plascon Wall and All" or other approved acrylic emulsion paint				
1	Walls	m²	5 195		
	H 408 G 216 F 432 D 492 A 324 B 156 C 260 E 432 J 1335 K 774 I 72 L 119 M 145 GH 30				
2	Ceilings and beams	m²	245		
	J 245				
	ON EXTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use				
3	Walls	m²	1 740		
	H 246 G 156 F 252 D 252 A 204 B 150 E 252 I 48 L 71 M 79 GH 30				
	ON INTERNAL GYPSUM PLASTER SURFACES				
	One coat primer and two coats superior quality acrylic emulsion paint for interior and exterior use				
4	Ceilings and cornices	m²	2 585		
	H 288 G 320 F 320 D 368 A 287 C 234 E 320 J 338 K 110				
	ON FIBRE-CEMENT BOARD SURFACES				
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use				
5	Fascias and barge boards, including priming metal jointing strips	m²	372		
	H 34 G 25 F 34 D 34 A 30 B 25 C 30 E 34 J 36 K 23 I 16 L 18 M 19 GH 14				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	ON METAL SURFACES				
	One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel				
6	Door frames	m²	105		
	H 10 G 5 F 10 D 13 A 3 B 3 C 5 E 10 K 31 I 5 L 5 M 5				
7	Windows	m²	152		
	H 28 G 14 F 28 D 20 A 27 B 15 E 20				
8	Gates, grilles, burglar screens, balustrades, etc. (both sides measured over the full flat area)	m²	28		
	B 9 C 19				
	ON WOOD SURFACES				
	Two coats oil wood primer				
9	Backs of frames, linings, etc. not exceeding 300mm wide	m	19		
	H 6 G 2 F 3 J 8				
	One coat primer and three coats premium quality polyurethane enamel paint				
10	Doors	m²	249		
	H 23 G 6 F 23 D 29 A 17 B 12 C 12 E 23 K 74 I 12 L 12 M 6				
	Carried to Collection			R	

		Amount
BILL NO. 16 **PAINTWORK** **COLLECTION**		
	Page No	
Brought Forward from Page	70	
	71	
	72	
	73	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 17

EXTERNAL WORKS

Key:	Location Description:
Un/A	Unallocated
H	Block H
G	Block G
F	Block F
D	Block D
A	Block A
B	Block B
C	Block C
E	Block E
J	Block J
K	Block K - Ablut 1-13
I	Block I - Ablution 2
L	Block L - Abluti 3-6
M	Block M - Abluti 4-5
GH	Guard House
0	External Works
I	Item Location (Auto)

The tenderer is referred to the relevant clauses in the ASAQS Model Trades Preambles 2008 and to the Supplementary Preambles which are incorporated at the back of these Bills of Quantities.

Explosives

No explosives whatsoever may be used for demolition purposes unless otherwise stated

General

The contractor shall carry out the whole of the works with as little mess and noise as possible and with minimum disturbance to adjoining classroom blocks and their students. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent

Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Removal of materials:				
	Where removal is included in the heading, sub-heading or item description, prices shall be deemed to include for the necessary costs in removal and appropriate disposal of materials including but not limited to labour, transportation and disposal costs. No further claims in this regard will be entertained.				
	THE FOLLOWING IN INTERLOCKING BLOCK RETAINING STRUCTURES DESIGNED, SUPPLIED AND INSTALLED COMPLETE BY THE MANUFACTURE OR APPROVED AGENT				
	Earthworks (CPAP Work Group 104)				
	Excavations				
1	Excavate in soft excavations and compacted fill material for surface trenches not exceeding 2m deep and deposit on the site	m³	39		
	0 39				
2	Backfilling from excavations to trenches and holes compacted to 98% MOD AASHTO density.	m³	22		
	0 22				
	Extra over all excavations for carting away				
3	Surplus material from stock piles on site to a dumping site to be located by the contractor	m³	181		
	0 181				
	Risk of collapse of excavations				
4	Sides of trench and hole excavations not exceeding 1.5m deep	m²	112		
	0 112				
	RETAINING STRUCTURES				
	Open face excavation in earth				
5	To embankment behind retaining blocks including trimming to slope	m³	164		
	0 164				
	Concrete (CPAP Work Group No. 110)				
	Unreinforced concrete 15MPa/19mm in :				
6	Blinding	m³	2		
	0 2				
	Unreinforced concrete 25MPa/19mm in :				
7	Strip footings	m³	15		
	0 15				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	"Loffelstein" Precast concrete interlocking planter blocks finished smooth on exposed surfaces. (Work Group No. 112)				
8	Retaining structure with stepped face and curves as required to suit slopes using type L300 interlocking planter blocks laid with horizontal bed joints including backfilling with selected earth obtained from the excavations and filling the blocks with gar in superstructure	m²	140		
	0 140				
9	Retaining structure with stepped face and curves as required to suit slopes using type L500 interlocking planter blocks laid with horizontal bed joints including backfilling with selected earth obtained from the excavations and filling the blocks with gar in foundations	m²	70		
	0 70				
	Course river sand filling supplied by the contractor				
10	Behind retaining wall compacted to 95% MOD AASHTO density	m³	164		
	0 164				
	THE FOLLOWING IN 12 No NEW WATER TANKS AND PLINTHS TO WATER STORAGE TANKS				
	Earthworks				
11	Excavation in earth not exceeding 2m deep for trenches	m³	33		
	0 33				
12	Extra over all excavation for loading, carting and dumping surplus excated material (no allowance made for increase in bulk) off site to a dump site to be located by the contractor	m³	24		
	0 24				
13	Earth filling of G7 material in accordance with SABS 1200 DM, compacted to 98% MOD AASHTO density in trenches and under surface beds	m³	18		
	0 18				
14	Risk of collapse to sides of trenches and hole excavations not exceeding 2m deep	m²	111		
	0 111				
15	Approved brand of anti-termite soil poison applied by a registered pest control company and guaranteed against termite infestation for 10 years under floors, steps, paving, etc.	m²	48		
	0 48				
16	Ditto but to bottoms and sides of trenches	m²	168		
	0 168				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Soil Poisoning Certificate				
17	Issue of Soil Poisoning Certificate by registered and authorised entity.	Item			
	0 1				
	Concrete, Formwork and Reinforcement				
18	15 Mpa/19mm unreinforced concrete in blinding	m³	3		
	Un/A 3				
19	25 Mpa/19mm unreinforced concrete in footings	m³	12		
	0 12				
20	25 Mpa/19mm reinforced concrete in surface beds	m³	9		
	0 9				
21	Finishing top surface of concrete smooth with a wood float	m²	96		
	0 96				
22	Rough formwork (Degree of accuracy III) in narrow widths not exceeding 300mm wide to sides of surface beds	m	120		
	0 120				
23	12mm Slip joints not exceeding 300mm wide between horizontal concrete and brick surfaces including cement motar bed and one layer 250 micron "Console Plastics Gunplas Black" or other approved waterproofing sheeting	m	120		
	0 120				
24	Ref 395 Mesh reinforcement to surface beds	m²	225		
	0 225				
	Waterproofing				
25	One layer of 250 micron "Console Plastics Gunplas Black" or other approved waterproof sheeting under surface beds	m²	48		
	0 48				
	Masonry				
26	Brickwork in foundations of NFX bricks (14MPa Nominal Compressive Strength) in class I mortar in One brick walls	m²	33		
	0 33				
27	Brickwork in superstructure of NFP bricks (14MPa Nominal Compressive Strength) in class I mortar in One brick walls	m²	54		
	0 54				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
28	Extra over brickwork for face brickwork for foundations in "Corobrik Firelight Satin FBX" face bricks, with recessed vertical and horizontal jointing	m²	24		
	0 24				
29	Extra over brickwork for face brickwork for super structure in "Corobrik Firelight Satin FBX" face bricks, with recessed vertical and horizontal jointing	m²	54		
	0 54				
30	150mm Wide brickwork reinforcement built in horizontally	m	360		
	0 360				
	Tanks, etc				
	Water storage tanks shall carry a minimum 8 year manufacturer guarantee, which certificate shall be handed over to the Client upon practical completion				
31	"JoJo Tanks - JJG" or other equally approved 5000 litre water tank, complete with vermin proof lid, inlets, outlets, etc. and anchored down with and including 4mm diameter galvanised mild steel wire loop double and fixed to top of tank with 15mm diameter rubber hose as sleeve, and anchored to top of concrete plinth with and including 4 No. Y10 high tensile steel reinforcement rods cast into concrete plinth	No	12		
	0 12				
32	20 mm diameter "Tommy" or other approved PVC ball valve with an including reducing bushes fixed with 90 degree PVC screw elbow, fitting into and including a 22mm extension pipe approximately 250mm long including barrel, nipple and socket and 3mm galvanised steel plate support, with 1 No. 23mm diameter hole at top for pipe inlet and 2no 18mm diameter holes at bottom for and including 2 No. M18 x 15mm rawl bolts cast into concrete plinths (Concrete plinth elsewhere measured)	No	12		
	0 12				
33	25mm "Polycop" or other approved polypropylene pipes	m	72		
	0 72				
34	Extra over 25mm Polypropylene pipes for fitting	No	36		
	0 36				
	THE FOLLOWING IN STORMWATER CHANNELS TO BUILDINGS				
	Earthworks				
35	Excavation in earth not exceeding 2m deep to reduce levels	m³	153		
	0 153				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
36	Extra over excavations for carting away excavated material to a dumping site to be located by the contractor	m³	153		
	0 153				
37	Compaction of ground surface under floor, etc including scaryfing for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% MOD AASHTO Density	m²	2 040		
	0 2040				
38	Earth filling of G5 material in accordance with SABS 1200 DM, compacted to 98% MOD AASHTO density in under floors	m³	153		
	0 153				
39	Approved brand of anti-termite soil poison applied under floors by a registered pest control company and guaranteed against termites infestation for 10 years	m²	2 040		
	0 2040				
	Soil Poisoning Certificate				
40	Issue of Soil Poisoning Certificate by registered and authorised entity.	Item			
	0 1				
	Reinforced concrete cast in-situ channels:				
41	2000mm Wide x 130mm thick overall mesh reinforced concrete "V"-shaped stormwater channels(1000mm wide) and apron slab (1000mm wide) combination of 25 Mpa/19mm concrete construction, "V" -shaped stormwater channel section to be 100mm thick at centre of 500mm wide adjacent surfaces, and both "V" -shaped stormwater channel and apron slab with and including Ref 193 mesh reinforcement, 250 micron "Console Plastics Gunplas Black" or other approved waterproof sheeting and rough formwork (Degree of Accuracy III) not exceeding 300mm high extreme to vertical edges of channels and apron slabs. Channels and apron slabs to be cast in 1000mm long panels, with and including bitumen impregnated fibreboard joints between adjacent panels and between panels and adjacent brick walls with approved joint sealant to all joints, and the whole to have a wood floated finish	m	1 020		
	0 1020				
42	Extra over 2000mm wide concrete stormwater channel for corner	No	90		
	0 90				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	THE FOLLOWING IN SITE WORKS				
43	Take from stockpile and spread and consolidate topsoil over site including compaction to 93% Mod AASHTO density.	m³	85		
	0 85				
44	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.	m²	1 500		
	0 1500				
45	Earth filling of approved G5 material in accordance with the relevant part of SANS 10400, supplied by the Contractor and filled to defined levels and compacted to a minimum density of 95% Mod AASHTO density.	m³	225		
	Un/A 225				
46	In-situ dry density test in accordance with method A10(b) of TMH1	No	4		
	0 4				
47	Maximum dry density test and optimum moisture content test in accordance with method A7 of TMH1	No	4		
	0 4				
	STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)				
	Class 100D concrete pipes with interlocking joints				
48	450mm Pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	150		
	0 150				
	Sumps, catchpits, inspection chambers, etc. including concrete kerbs or precast concrete cover slabs, gratings and covers				
49	Construct 230mm brick catchpit approximately 1255mm x 940mm overall size on plan and approximately 1100mm high, including excavation in earth and cartaway all excess material, 25MPa concrete surface bed with 2 layers of 395 Mesh, concrete benching for 450mm diametre pipe including 520 x 790 heavy duty stormwater grating and frame all as per attached engineering drawing number 04	No	9		
	0 9				
	Carried to Collection			R	

		Amount
BILL NO. 17 **EXTERNAL WORKS** **COLLECTION**		
	Page No	
Brought Forward from Page	75	
	76	
	77	
	78	
	79	
	80	
	81	
Carried to Summary	**R**	

Bill No.	**SUMMARY**	Page	Amount
1	ALTERATIONS	13	
2	EARTHWORKS	17	
3	CONCRETE, FORMWORK AND REINFORCEMENT	21	
4	MASONRY	24	
5	WATERPROOFING	27	
6	ROOF COVERINGS	32	
7	CARPENTRY AND JOINERY	39	
8	CEILINGS PARTITIONS AND ACCESS FLOORING	42	
9	FLOOR COVERINGS	43	
10	IRONMONGERY	47	
11	STRUCTURAL STEELWORK	50	
12	METALWORK	54	
13	PLASTERING	58	
14	PLUMBING AND DRAINAGE	66	
15	GLAZING	69	
16	PAINTWORK	74	
17	EXTERNAL WORKS	82	
	Carried to Next SUMMARY	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 1

EARTHWORKS

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

SUPPLEMENTARY PREAMBLES

Nature of ground

The nature of the ground is assumed to be loose sandy material, therefore 'earth', but possibly interspersed with 'soft rock' or 'hard rock'

Excavation for working space in rock

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

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

Descriptions for carting away of materials are deemed exclusive of bulking i.e. the measurement of same for payment will be based on the volume of earth removed based on the approved design, and not the volume of earth finally removed from site.

Filling

Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material

Testing

Prices for filling are to include for all necessary density tests in accordance with the relevant part of SANS 10400

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	SITE CLEARANCE ETC				
	Site clearance				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc. and trees not exceeding 200mm girth	m²	355		
	G 126 GR 123 B 106				
	EXCAVATION ETC				
	Excavation in earth not exceeding 2m deep				
2	Reduced levels under floors	m³	33		
	G 11 GR 11 B 11				
3	Trenches	m³	28		
	G 12 GR 8 B 8				
4	Bases	m³	120		
	G 43 GR 51 B 26				
	Excavation in earth exceeding 2m deep and not exceeding 4m deep				
5	Bases	m³	42		
	G 15 GR 18 B 9				
	Extra over trench and hole excavations in earth for excavation in:				
6	Soft rock	m³	22		
	Un/A 22				
7	Hard rock	m³	11		
	Un/A 11				
	Extra over all excavations for carting away				
8	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m³	176		
	Un/A 176				
	Risk of collapse of excavations				
9	Sides of trench and hole excavations not exceeding 1,5m deep	m²	201		
	G 78 GR 65 B 58				
10	Sides of trench and hole excavations exceeding 1,5m deep	m²	85		
	G 29 GR 28 B 28				
	Keeping excavations free of water				
11	Keeping excavations free of all water other than subterranean water	Item			
	I 1				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	FILLING ETC OTHER THAN BULK				
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 90% Mod AASHTO density				
12	Backfilling to trenches, holes, etc	m³	14		
	G 6 GR 4 B 4				
	Imported G5 filling supplied and carted onto site by the Contractor, compacted to a density of at least 98% Mod. AASHTO maximum density:				
13	Under floors, steps, pavings, etc.	m³	25		
	G 9 GR 9 B 7				
	Coarse river sand filling supplied by the contractor				
14	Under floors etc.	m³	8		
	G 3 GR 3 B 2				
	Compaction of surfaces				
15	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 98% Mod AASHTO density	m²	142		
	G 49 GR 53 B 40				
	Prescribed density tests on filling				
16	Modified AASHTO Density test	No	12		
	Un/A 12				
	SOIL POISONING				
	Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years:				
17	Under floors etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m²	142		
	G 49 GR 53 B 40				
18	To bottoms and sides of trenches, holes, etc.	m²	423		
	G 89 GR 45 B 289				
	Soil Poisoning Certificate				
19	Issue of Soil Poisoning Certificate by registered and authorised entity.	Item			
	I 1				
	The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.				
	Carried to Collection			R	

		Amount
BILL NO. 1 **EARTHWORKS** **COLLECTION**		
	Page No	
Brought Forward from Page	84	
	85	
	86	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 2

CONCRETE, FORMWORK AND REINFORCEMENT

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required in the relevant part of SANS 10400 shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)

Formwork

Descriptions of formwork shall be deemed to include use and waste only (except where described as 'left in' or 'permanent'), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use

The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself

Formwork to soffits of solid slabs etc. shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	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				
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	15MPa/19mm concrete				
1	Surface blinding under footings and bases	m³	8		
	G 3 GR 3 B 2				
	25MPa/19mm concrete				
2	Footings	m³	8		
	G 4 GR 2 B 2				
3	Base	m³	19		
	G 7 GR 8 B 4				
4	Surface beds cast in panels on waterproofing including thickening	m³	9		
	G 3 GR 3 B 3				
5	Ramp	m³	3		
	G 1 GR 1 B 1				
	REINFORCED CONCRETE CAST ON/IN FORMWORK				
	30MPa/19mm concrete				
6	Slab	m³	10		
	G 4 GR 4 B 2				
	TEST CUBES				
	Test cubes				
7	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	24		
	Un/A 24				
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a wood float to give a Class U2 non-slip finish				
8	Surface beds, slabs, etc. to falls	m²	200		
	G 70 GR 79 B 51				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	ROUGH FORMWORK (DEGREE OF ACCURACY III) (CPAP WORK GROUP NO. 111)				
	Rough formwork to soffits				
9	Slabs	m²	59		
	G 21 GR 26 B 12				
	Rough formwork to sides				
10	Slabs not exceeding 300mm wide	m	53		
	G 18 GR 21 B 14				
	MOVEMENT JOINTS ETC				
	Polsulphide sealant durakol 25 or similar approved with and including polyethylene bond breaker backing strip				
11	Not exceeding 300mm wide	m	102		
	G 35 GR 45 B 22				
	Toggle joint				
12	10mm joints not exceeding 300mm high	m	15		
	G 4 GR 7 B 4				
	Saw cut joint				
13	Saw cut joint not exceeding 300mm high	m	73		
	G 26 GR 25 B 22				
	"Jointex" or other approved compressible joint filler				
14	12mm joints not exceeding 300mm high	m	73		
	G 26 GR 25 B 22				
	REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)				
	Mild steel reinforcement to structural concrete work				
15	Bars of various diameter	Tonnes	1.41		
	G 0.5 GR 0.61 B 0.3				
	High tensile steel reinforcement to structural concrete work				
16	Bars of various diameter	Tonnes	1.41		
	G 0.5 GR 0.61 B 0.3				
	Fabric reinforcement				
17	Type 245 fabric reinforcement in concrete surface beds etc.	m²	356		
	G 122 GR 122 B 112				
	Carried to Collection			R	

		Amount
BILL NO. 2		
CONCRETE, FORMWORK AND REINFORCEMENT		
COLLECTION		
	Page No	
Brought Forward from Page	88	
	89	
	90	
Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 3

PRECAST CONCRETE

Key:	**Location Description:**
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

PRECAST CONCRETE

Sizes

Blocks, sills, etc measured linear shall be made in suitable lengths. Large size setting out drawings shall be prepared where necessary and submitted to the principal agent for approval before moulds are made

General

Where kerbstones, blocks, etc are laid in ground descriptions shall be deemed to include necessary excavation, filling in and ramming

PRECAST CONCRETE SLABS ETC

Precast concrete cover slab 80mm thick formed of 25MPa/19mm concrete with class 1 smooth finish on exposed surfaces splayed 25mm at edges with ref. 193 mesh reinforcement and 2no. Threaded 15mm diameter polycop pipe sleeves cast in to receive 2no. Threaded 10mm diameter galvanised L-shaped lifting handles with 50 x 50 x 5mm holed plates, nuts and lock nuts, including holes to fit 110mm diameter vent pipe, etc. laid on brick walls.

1	Cover slab size 770 x 930mm	No	12		
	G 4 GR 6 B 2				
	Carried to Summary			R	

		Unit	Quantity	Rate	Amount

BILL NO. 4

MASONRY

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

BRICKWORK

Sizes in descriptions

Where sizes in descriptions are given in brick units, 'one brick' shall represent the length and 'half brick' the width of a brick

Hollow walls

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

Bagged and sealed walls

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 bitumen emulsion waterproofing coating

Face bricks

Bricks shall be ordered timeously to obtain uniformity in size and colour

Pointing

Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.

BRICKWORK IN FOUNDATIONS (PROVISIONAL)

Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar

1	One brick walls bagged and sealed	m²	23	
	G 10 GR 7 B 6			
2	Piers	m³	2	
	G 1 B 1			
	Carried to Collection			R

		Unit	Quantity	Rate	Amount
	Brickwork Sundries				
3	75mm mortar chamfer to bottom corners of pit	m	50		
	G 15 GR 21 B 14				
	BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of NFP bricks (14 MPa nominal compressive strength) in class II mortar				
4	Half brick walls	m²	36		
	G 13 GR 16 B 7				
5	One brick walls	m²	200		
	G 79 GR 77 B 44				
6	Half brick walls in beamfilling	m²	14		
	G 5 GR 5 B 4				
7	Piers	m³	2		
	G 1 B 1				
	BLOCKWORK IN FOUNDATIONS (PROVISIONAL) (CPAP WORK GROUP NO. 116)				
	Blockwork in class II mortar with cores filled solid with mortar				
8	330mm Walls bagged and sealed	m²	118		
	G 40 GR 47 B 31				
	BRICKWORK SUNDRIES				
9	Raking cutting and waste to top of one brick walls to match roof profile above	m	22		
	G 7 GR 8 B 7				
	Steel bar reinforcement				
10	R8 Diameter mild steel bars built in horizontally	Tonnes	0.79		
	G 0.27 GR 0.26 B 0.26				
	Joint forming material in movement joints:				
11	12mm Bitumen impregnated fibre board built vertically through brick walls	m²	7		
	G 2 GR 3 B 2				
12	12mm Bitumen impregnated fibre board built horizontally through brick walls	m²	18		
	G 6 GR 7 B 5				
	2,5mm Galvanised brick reinforcement				
13	150mm Wide reinforcement built in horizontally	m	1 466		
	G 572 GR 481 B 413				
14	75mm Wide reinforcement built in horizontally	m	247		
	G 99 GR 99 B 49				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Prestressed fabricated concrete lintels including necessary temporary supports				
15	110 x 75mm Lintels in lengths not exceeding 3m	m	28		
	G 9 GR 13 B 6				
	Turning pieces to lintels etc.				
16	110mm Wide turning pieces	m	17		
	G 6 GR 8 B 3				
	Galvanised wire ties etc.				
17	4mm Diameter roof tie 2m girth bent double, with one end built into brickwork and other end fixed to timber	No	44		
	G 14 GR 16 B 14				
18	40 x 1,6mm x 1.6m wall tie strips shot pinned to concrete and with ties bent out and built into brickwork	No	1 421		
	G 560 GR 546 B 315				
	Air bricks etc.				
19	159 x 229mm Terracotta type airbricks built to brick	No	18		
	G 6 GR 8 B 4				
	FACE BRICKWORK				
	"Rainbow Light" Face bricks pointed with recessed horizontal and vertical joints:				
20	Extra over brickwork for face brickwork in foundations	m²	12		
	G 4 GR 4 B 4				
21	Extra over brickwork for face brickwork	m²	189		
	G 68 GR 65 B 56				
22	Extra over brickwork for face brickwork in piers	m³	2		
	G 1 B 1				
23	Extra over brickwork for face brickwork in beamfilling	m²	14		
	G 5 GR 5 B 4				
24	Fair raking and cutting and waste to tops of one brick walls to match roof profile above	m	22		
	G 7 GR 8 B 7				
25	Extra over brickwork for brick-on-edge header course lintol pointed on face and 115mm soffit	m	28		
	G 9 GR 13 B 6				
	FACE BRICKWORK COPINGS, SILLS, ETC				
	Brick-on-edge header course copings, sills, etc. of "Rainbow Light" or other approved face bricks pointed with recessed joints on all exposed faces:				
26	220mm Wide sills set sloping and slightly projected	m	13		
	G 4 GR 7 B 2				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	FIBRE-CEMENT WINDOW SILLS				
	Fibre-cement Sills				
27	Fibre-cement sill as "Everite Nutec" or other approved, (Product Code: 031-509) built into 230mm wall, with and including fixing lugs and self-tapping screws G 4 GR 7 B 2	m	13		
	Carried to Collection			R	

			Amount
BILL NO. 4 **MASONRY** **COLLECTION**			
		Page No	
	Brought Forward from Page	93	
		94	
		95	
		96	
	Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 5

WATERPROOFING

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Waterproofing

Waterproofing of roofs, basements, etc. shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs

DAMPPROOFING OF WALLS AND FLOORS

One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)

1	In walls	m²	140		
	G 50 GR 48 B 42				
2	In walls, sills, lintols, etc	m²	6		
	G 2 GR 3 B 1				
	One layer 250 micron green polyethylene waterproof sheeting (SANS 952-1985 type C) sealed at laps with PVC self-adhesive tape				
3	Under surface beds	m²	76		
	G 28 GR 27 B 21				
	SEALING STRIPS, JOINT SEALANTS, ETC				
	Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.				
4	10 x 10mm In saw cut joints in floors including raking out expansion joint filler as necessary	m	85		
	G 30 GR 29 B 26				
5	12 x 3mm In expansion joints in floors including raking out expansion joint filler as necessary	m	85		
	G 30 GR 29 B 26				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	"Bostik" or other approved silicone sealant:				
6	In joints between steel frames and walls	m	132		
	G 43 GR 62 B 27				
	WATERPROOFING TO PIT WALLS				
	"Coprox" or other approved Cemetitious waterproofing to line pit walls and floors				
7	On floors	m²	59		
	G 21 GR 26 B 12				
8	On walls	m²	118		
	G 40 GR 47 B 31				
	Carried to Collection			R	

		Amount
BILL NO. 5 **WATERPROOFING** **COLLECTION**		
	Page No	
Brought Forward from Page	98 99	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 6

ROOF COVERINGS

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Sheeting:

The roof sheeting shall be 0.55mm thick full hard IBR profile galvanised mild steel or other approved roof sheets, roll formed in continuous lengths and cut to length by a pneumatic cut-off process. A certificate verifying compliance to all current SABS codes in respect to galvanised sheeting shall be issued by the manufacturer.

Finishing of sheets:

The paint finish shall be colour plus on one side and standard grey finish on the other side

Fixing of sheets:

The roof sheeting shall be laid in long lengths, narrow flutes outermost, with single flute sidelaps facing away from prevailing wind. All sheets shall be secured to timber purlins utilising approved roofing screws in strict accordance to the manufacturers instructions. Sheeting is to be drilled and not punched, with side laps filled with approved Mastic sealant. Sheeting is to protrude a minimum of 50mm from ends of rafters

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Flashings:				
	Flashings shall be approved by the manufacturer and fixed to the sheeting with approved fixings. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Flashing flanges shall be notched to the sheet profile where necessary. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surface in order to prevent steel spatter from penetrating colour coated areas.				
	Erection:				
	Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, shall be replaced, at no additional cost to the Contract				
	Safety:				
	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.				
	Guarantee:				
	The manufacturer shall comply with ISO9002 Quality Management System. Sheeting shall be laid in strict accordance with manufacturers specifications by an approved contractor. A written and approved five (5) year guarantee of site workmanship and water tightness shall be issued after final inspection of roof sheets by the manufacturer.				
	PROFILED METAL SHEETING AND ACCESSORIES				
	0.55mm Thick galvanized continuous IBR profile metal sheeting with 'Colour Plus' finish on one side and standard grey finish on the other side fixed to timber purlins with and including approved roofing screws with 19mm round galvanised washers and rubber gasket (timber purlins measured elsewhere)				
1	Roof covering with pitch not exceeding 25 degrees	m²	119		
	G 43 GR 45 B 31				
2	Ridge cappings 462mm girth	m	22		
	G 8 GR 8 B 6				
	Carried to Collection			R	

Bill No. 6

Roof Coverings

		Unit	Quantity	Rate	Amount
3	Hot dip galvanised metal polyclosures to eaves and ridges	m	98		
	G 35 GR 35 B 28				
4	Sondor IBR pattern polyclosure to eaves and ridges	m	98		
	G 35 GR 35 B 28				
5	Extra over roof sheet for fixing every crown at eaves.	m	76		
	G 27 GR 27 B 22				
	Sundries				
6	"Teco" or equally approved galvanised two way "hurricane" clips	No	240		
	G 90 GR 80 B 70				
	ROOF AND WALL INSULATION (CPAP WORK GROUP NO. 122)				
	Sisalation "FR 430 Industrial" multi-layered reinforced double sided aluminium foil sheeting in accordance with SANS 10400 with a mass of not less than 251g/m² and a Class I fire rating in accordance with SANS 10177-3				
7	Insulation sheeting laid taut over timber purlins (timber purlins elsewhere measured) and fixed concurrent with roof covering with minimum 150mm stapled laps including galvanised steel straining wires at not exceeding 400mm centres and double-sided tape at edges where required	m²	119		
	G 43 GR 45 B 31				
	Carried to Collection			R	

		Amount
BILL NO. 6 **ROOF COVERINGS** **COLLECTION**		
	Page No	
Brought Forward from Page	101	
	102	
	103	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 7

CARPENTRY AND JOINERY

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Fixing

Items described as 'nailed' shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete

Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as 'bolted', the bolts have been given elsewhere

Joinery

Descriptions of frames shall be deemed to include frames, transomes, rails, etc.

Descriptions of hardwood joinery shall be deemed to include sinking and pelleting heads and nuts of bolts

Decorative thermosetting plastic laminate covering

Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish

Prefabricated plate nailed timber roof truss contruction:

NOTE: The following is applicable in respect of roof trusses:

The Contractor shall allow for all items deemed necessary for the proper design, fabrication and erection of the roof trusses, bracing, etc.

The materials and design of the roof construction shall be in accordance with the relevant edition of the South African National Standards (SANS) and the Standard Building Regulations (SBR).

Carried to Collection			R	

	Unit	Quantity	Rate	Amount
The design of trusses and permanent bracing shall be carried out under the control of a registered professional engineer who shall provide the requisite certificate of stability on completion of the roof contruction. All calculations and drawing, including a key plan of each building showing the position of each type of member shall be submitted timeously to the consulting Structural Engineer for his approval before fabrication is commenced.				
Prices are to include for the provision of adequate temporary bracing during construction to the approval of the Departmental Engineer.				
The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect and/or the site before fabrication commences.				
Trusses must be designed in accordance with the environmental conditions of the area				
The following roof trusses are to a pitch not exceeding 25 degrees (unless otherwise stated) spaced at approximately 1200mm centres and are to receive 0,55mm thick IBR-profile roof sheets on timber purlins and a nailed up ceiling under.				
PRETREATMENT OF TIMBER				
This service falls within the areas defined in the National Building Regulations for Treatment of Timber against insect pest affecting softwood fixed permanently in all buildings.				
The Regulations require that timber be treated in terms of the relevant part of SANS 10400. Tenderers are to make allowance in their rates.				
PREFABRICATED ROOF TRUSSES, ETC.				
All timber roof trusses including nail-plated trusses and bolted trusses with lapped members must comply with the relevant part of SANS 10400				
Prices for roof trusses are to include for all temporary bracing and supports and for all necessary top and bottom chord bracing, wind bracing and runners where required and overhanging ends are to be wrot faced all round.				
Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	Plate nailed timber roof truss contruction:				
	The following is applicable in respect of roof trusses: Trusses are at maximum 1200mm centres. Roof covering is 0,55mm thick IBR-profile roof steel on timber purlins. Ceilings are plasterboard on softwood brandering. The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the Architect and/or the site before design or fabrication commences.				
	The following in plate nailed timber roof trusses with pitch not exceeding 25 degrees from an approved supplier, delivered to site, hoisted into position, fixed and braced on timber wall plates in accordance with the relevant part of SANS 10400:				
1	Design, supply and install roof truss system complete and in accordance with the SANS, including cross battens at hips, valleys, etc. all in accordance with the relevant specifications to building size approximately 7 650mm x 3 820mm on plan, and with clear between walls approximately 3 820mm (measured on flat 29m2) (pitch 17.5 degrees)	No	1		
	GR 1				
2	Design, supply and install roof truss system complete and in accordance with the SANS, including cross battens at hips, valleys, etc. all in accordance with the relevant specifications to building size approximately 6 100mm x 3 820mm on plan, and with clear between walls approximately 3 820mm (measured on flat 24m2) (pitch 17.5 degrees)	No	1		
	B 1				
3	Design, supply and install roof truss system complete and in accordance with the SANS, including cross battens at hips, valleys, etc. all in accordance with the relevant specifications to building size approximately 8 100mm x 3 820mm on plan, and with clear between walls approximately 3 820mm (measured on flat 31m2) (pitch 17.5 degrees)	No	1		
	G 1				
	Sawn softwood				
4	76 x 50mm Purlins	m	117		
	G 41 GR 38 B 38				
5	114 x 38mm Wall plates	m	40		
	G 15 GR 14 B 11				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Sundries				
6	Two coats "ABE Provonite" or equally approved coal tar paint on roof timbers at eaves and verges	m²	93		
	G 34 GR 33 B 26				
7	2.5mm Diameter double strand galvanised wire tie 550mm girth wrapped around rafter and purlin with ends tied together.	No	220		
	G 90 GR 70 B 60				
	The following certificates are required per block:				
8	Provide manufacture and installation certificates (TR1 and TR2), to be supplied by the contractor and approved by the Consulting Structural Engineer after manufacture and installation respectively	Item			
	I 1				
	ROOFS ETC				
	Sawn softwood				
9	38 x 114mm timber fixed to ends of timber trusses	m	43		
	G 16 GR 15 B 12				
10	50 x 75mm timber fixed between timber purlins	m	33		
	G 11 GR 12 B 10				
	EAVES, VERGES, ETC				
	"Premier 2FAS42" equally approved fascias and barges				
11	80 x 200mm Angle section barge boards (Premier 2FAS42 Pre-painted) including galvanised steel H-Profile jointing strips and fix with hot dip galvanised screws and washers	m	33		
	G 11 GR 12 B 10				
12	12 x 225mm (Premier 2FAS42 Pre-painted) medium density Fascia boards including galvanised H-Profile jointing strips tide with and including hot dipped galvanised screws and washers	m	43		
	G 16 GR 15 B 12				
	DOORS				
	Wrought meranti doors hung to steel frame (Steel frame elsewhere measured)				
13	40mm Framed, ledged, braced and battened single door 813 x 2032mm high with rebated meeting stiles, each leaf of 40 x 110mm top rail and stiles, 20 x 150mm middle ledge, 20 x 110mm braces and 20 x 225mm bottom ledge filled in with 20mm V-jointed one side boarding	No	4		
	G 1 GR 2 B 1				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Semi solid core doors hung to steel frame (Steel frame elsewhere measured)				
14	40mm Semi solid core interior door approximately 813 x 1800mm high G 4 GR 5 B 2	No	11		
	Carried to Collection			R	

		Amount
BILL NO. 7 **CARPENTRY AND JOINERY** **COLLECTION**		
	Page No	
Brought Forward from Page	105	
	106	
	107	
	108	
	109	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 8

CEILINGS PARTITIONS AND ACCESS FLOORING

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

SUPPLEMENTARY PREAMBLES

Fixing

Items described as 'nailed' shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete

Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as 'bolted', the bolts have been given elsewhere

Ceilings

Unless otherwise described ceilings shall be deemed to be horizontal

Bulkheads

Bulkheads are defined as those portions of ceilings which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal services or to create architectural features

Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 900mm. Where these dimensions are more than 900mm such portions of ceilings have been included in the appropriate general items of ceilings

Unless otherwise described bulkheads shall be deemed to be horizontal along the length

Steel components

All steel components for ceilings, partitions, etc. are to be galvanised in accordance with SANS 121

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	CEILING TIMBERS, BEADS, INSULATION, ETC				
	"Aerolite" or equally approved insulation				
1	100mm Thick insulation in blanket form closely fitted and laid on top of brandering between roof timbers etc.	m²	76		
	G 28 GR 27 B 21				
	NAILED-UP CEILINGS				
	9mm Gypsum plasterboard ceiling fixed print side up with 32mm galvanised semi-clout nails at 150mm centres with galvanised H-profile metal cover strips, all in strict accordance with the manufacturers instructions:				
2	Ceilings including 38 x 50mm sawn softwood brandering at 450mm centres in both directions, complete with 38 x 50mm hanger brackets nailed to trusses and nailed to brandering as extra support system	m²	76		
	G 28 GR 27 B 21				
3	Extra over ceiling for 600 x 600mm trap door of 38 x 50mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around	No	3		
	G 1 GR 1 B 1				
	Gypsum plasterboard cornices				
4	75mm Coved cornices, plugged	m	71		
	G 23 GR 29 B 19				
	Carried to Collection			R	

		Amount
BILL NO. 8		
CEILINGS PARTITIONS AND ACCESS FLOORING		
COLLECTION		
	Page No	
Brought Forward from Page	111	
	112	
Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 9

IRONMONGERY

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Proprietary items

Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc. clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration

Finishes to ironmongery

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AN Anodised natural AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded

HINGES, BOLTS, ETC.

"Union" or other approved

1	100mm Galvanised and welded loose pin hinges	No	34		
	G 11 GR 16 B 7				

LOCKS

"Union" or other approved

2	Solid Blesbok (Product Code: 460/313) Three-lever lockset with and including Satin Chrome plated handles.	No	4		
	G 1 GR 2 B 1				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
3	BB - 179S Brass barrel bolt toilet lockset	No	11		
	G 4 GR 5 B 2				
4	Brass padlock	No	3		
	G 1 GR 1 B 1				
	SUNDRIES				
	"Geze" or other approved				
5	38mm Diameter rubber door stop plugged and screwed to floor with a 50mm long brass screw	No	4		
	G 1 GR 2 B 1				
	LETTERS, NAMEPLATES, ETC				
	Signage, etc				
6	180 x 180 x 0.6mm Thick green vinyl on white Cromadeck sheeting with male or female symbol	No	4		
	G 1 GR 2 B 1				
	BATHROOM FITTINGS				
	SANS approved				
7	130 x 135 x 360mm high toilet tissue dispenser, installed as per manufactere's instructions	No	12		
	G 4 GR 6 B 2				
8	150 x 150mm white glazed porcelain soap holder , plugged	No	7		
	G 2 GR 3 B 2				
	Carried to Collection			R	

		Amount
BILL NO. 9 **IRONMONGERY** **COLLECTION**		
	Page No	
Brought Forward from Page	114	
	115	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 10

METALWORK

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Descriptions of bolts, anchors, etc.

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

Items described as 'holed for bolt(s)' shall be deemed to exclude the bolts unless otherwise described

Items described as 'plugged' shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres

Hot dipped galvanising:

The mass of hot dip galvanised steelwork has been calculated on the mass before galvanising and no allowance has been made for the additional mass of galvanising for which allowance must be made in pricing.

Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.

Drawings:

Tenderers are to note that where descriptions include reference to drawings, notwithstanding anything contained in the descriptions, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender documents. No additional time and/or monetary claims resulting from non-adherence to the above will be enterained.

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	GALVANISED STEEL GATES, SCREENS, ETC				
	Security gates:				
1	Purpose made Single hot dipped galvanised mild steel gate, 1000mm x 2125mm formed of 40 x 60 x 3mm hollow sectioned frames, 25 x 250 x 3mm lung welded angle iron frame and 40 x 6mm horizontal supports with 19mm diameter holes for vertical rods, filled in with 19mm diameter steel vertical rods at 110mm centres welded to frame and fitted with 2no. Pin type gate hinges welded to frame and pad lock plates welded to gate, cabin hook and plugged to walls with and including expantion joints as per Architectural drawing no. D19.003 - R	No	3		
	G 1 GR 1 B 1				
	SUNDRY STEELWORK				
	GALVANISED PRESSED STEEL DOOR FRAMES				
	1.2mm single rebated frame suitable for 220mm brick walls complete with 2 brass butt hinges per door leaf with straps for building in:				
2	Frame for single door size approximately 813mm x 2032mm high .	No	4		
	G 1 GR 2 B 1				
	1.2mm single rebated frame suitable for 110mm brick walls complete with 2 brass butt hinges per door leaf with straps for building in:				
3	Frame for single door size approximately 813mm x 1800mm high .	No	11		
	G 4 GR 5 B 2				
	GALVANISED STEEL WINDOWS, DOORS, ETC				
	SABS approved standard hot dipped galvanised school type windows fitted with and including 16mm diameter mild steel bar burglar proofing to opening sections:				
4	Window type W5: NE2, 550 X 654mm high	No	11		
	G 4 GR 5 B 2				
5	Window type W9: NE1, 1100 X 500mm high	No	7		
	G 2 GR 4 B 1				
	Carried to Collection			R	

		Amount
BILL NO. 10 **METALWORK** **COLLECTION**		
	Page No	
Brought Forward from Page	117 118	
Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 11

PLASTERING

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Method

The method to be used shall be either the monolithic method or the bonded method

Preparation

For granolithic applied monolithically, the concrete floor shall be swept clean after bleeding of the concrete has ceased and the slab has begun to stiffen; any remaining bleed water shall be removed and the granolithic applied immediately thereafter. For granolithic to be bonded to the floor slab after it has hardened, the slab surface shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc. is dislodged and swept clean of all loose matter. The slab shall then be wetted and kept damp for at least six hours before applying the granolithic.

Mix

Granolithic shall attain a compressive strength of at least 41MPa. The coarse aggregate shall comply with SANS 1083 and shall generally be capable of passing a 10mm mesh sieve. Where the thickness of the granolithic exceeds 25mm, the size of the coarse aggregate shall be increased to the maximum size compatible with the thickness of the granolithic.

Panels

Granolithic shall be laid in panels not exceeding 14m\'b2 for monolithic finishes, not exceeding 9,5m\'b2 for bonded finishes and not exceeding 6m\'b2 for all external granolithic. Wherever possible, panels shall be square but at no time should the length of the panel exceed 1,5 times its width.

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints				
	Laying				
	Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels				
	Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels				
	After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated				
	Curing, seasoning and protection				
	Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.				
	Colour				
	Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.				
	SCREEDS				
	Screeds wood floated, on concrete				
1	Average 30mm thick on floors with upper surface to falls	m²	76		
	G 28 GR 27 B 21				
	GRANOLITHIC				
	Untinted granolithic, on concrete				
2	Average 30mm thick on floors and landings	m²	9		
	G 4 GR 2 B 3				
	INTERNAL PLASTER				
	Cement plaster, on brickwork				
3	On walls	m²	283		
	G 98 GR 114 B 71				
4	On narrow widths	m²	10		
	G 3 GR 5 B 2				
	Carried to Collection			R	

			Amount
BILL NO. 11 **PLASTERING** **COLLECTION**			
		Page No	
	Brought Forward from Page	120	
		121	
	Carried to Summary	**R**	

	Unit	Quantity	Rate	Amount

BILL NO. 12

PLUMBING AND DRAINAGE

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Wire gratings

Descriptions of gutter outlets etc. shall be deemed to include wire balloon gratings

Stormwater channels

Descriptions of channels shall be deemed to include necessary excavation, surface preparation, compaction, etc., and disposal of surplus material on site

French drains

Descriptions of French drains shall be deemed to include excavation, stone filling graded from 300mm diameter at bottom to 75mm diameter at top, geofabric filter blanket over stone, 300mm earth filling over and disposal of surplus material on site

Septic tanks

Descriptions of proprietary type 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 and disposal of surplus material on site

Stainless steel basins, sinks, wash troughs, urinals, etc.

Stainless steel for economy basins, domestic sinks and worktops shall be Type 430 (17/0) Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc. shall be Type 304 (18/8) Stainless steel for laboratory sinks, photographic equipment, etc. shall be Type 316 (18/8) Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

Carried to Collection			R	

	Unit	Quantity	Rate	Amount
Sealing of edges Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone **uPVC pipes and fittings** Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings. Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings **uPVC pressure pipes and fittings** Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings. Pipes of 63mm 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 **High density polyethylene (HDPe) pipes and fittings** Pipes shall be type IV and of the class specified with Plasson or Alprene compression fittings **Polycop polypropylene pipes** Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with Fast-fuse heat welded thermoplastic or where so described Polylock compression fittings 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 **Copper pipes** Pipes shall be hard drawn and half-hard Maksal pipes of the class described. 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 or other equally approved. Capillary solder fittings shall comply with ISO 2016 Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc. to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition				
Carried to Collection			**R**	

	Unit	Quantity	Rate	Amount
Reducing fittings				
Where fittings have reducing ends or branches they are described as 'reducing' and 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				
Fixing of pipes				
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				
Paper wrapping to pipes				
Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings				
Disinfection of water pipework				
Water pipework is to be disinfected at completion in accordance with the relevant part of SANS 10400				
Densyl petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.				
Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with 25% overlaps. Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including 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				
Laying, backfilling, bedding, etc. of pipes				
Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled				
Where no manufacturers' instructions exist, pipes shall be laid in accordance with the relevant part of SANS 10400				
General				
Descriptions of cast iron roof outlets shall be deemed to include joints to pipes and casting into concrete and shall include adaptors for joints to PVC pipes, etc. Descriptions of overflow pipes where measured in number, shall be deemed to include joints to cisterns and splay cut ends				
Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	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 98% Mod AASHTO density and disposal of surplus material off site				
	Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc. steel pipes, copper pipes, etc.				
	Descriptions of WC pans, slop hoppers, etc. shall be deemed to include for joints to soil pipes (pan connectors are separately measured)				
	As-built drawings				
	The contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere)				
	RAINWATER DISPOSAL				
	Seamless aluminium prepainted gutters and rainwater pipes, with baked enamel finish				
1	125mm x 100mm x 0,8mm Square profile aluminium seamless roof gutters fixed to falls with brackets screwed to eaves, purlins/false timber through fibre cement fascia with galvanised screws/or bolted to fibre cement fascia or steel supporting structure with galvanised bolts/nuts and washers at 500mm centres.	m	43		
	G 16 GR 15 B 12				
2	100 x 75 x 0,6mm thick rectangular fluted Rainwater downpipes including prepainted aluminium straps fixed to walls with nail plugs and/or fixed to steel supports with self tapping screws.	m	36		
	G 12 GR 12 B 12				
3	Extra over gutter for stopped end	No	12		
	G 4 GR 4 B 4				
4	Extra over eaves gutter for drop box suitable for 150 x 150mm box gutter	No	6		
	G 2 GR 2 B 2				
5	Extra over gutter for outlet for 100 x 75mm pipe	No	6		
	G 2 GR 2 B 2				
6	Extra over rainwater pipe for bend	No	18		
	G 6 GR 6 B 6				
7	Extra over rainwater pipe for shoe	No	6		
	G 2 GR 2 B 2				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	SANITARY FITTINGS				
	SANS Approved				
8	"ATLAS VIP 200" or other approved WC (code: 222 AP C/W) pan with double flap heavy duty plastic seat and inlet funnel (code: 224 AP)	No	12		
	G 4 GR 6 B 2				
9	570 x 420mm SANS approved wash hand basin on galvanised steel brackets	No	9		
	G 3 GR 4 B 2				
10	320 x 350mm Type 490mm curved bowl urinal fitted with waterless urinal cold water fittings, and mounted with brackets on wall	No	2		
	B 2				
	TRAPS ETC				
	SANS Approved				
11	50mm Rubber S trap	No	8		
	G 3 GR 3 B 2				
	SANITARY PLUMBING				
	uPVC soil and vent pipes				
12	50mm Pipes chased into brickwork	m	24		
	G 9 GR 8 B 7				
13	50mm Pipes	m	130		
	G 50 GR 40 B 40				
14	110mm Pipes	m	50		
	G 17 GR 25 B 8				
	Extra over uPVC soil and vent pipes for fittings				
15	50mm Bend	No	40		
	G 16 GR 16 B 8				
16	50mm Junction	No	17		
	G 6 GR 7 B 4				
	Sundries				
17	110mm Diameter 'Model PVS-IS3' or other approved insect and rodent guard mesh	No	13		
	G 5 GR 6 B 2				
	WATER SUPPLIES				
	Polypropylene pipes				
18	15mm Pipes	m	85		
	G 35 GR 30 B 20				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
19	15mm Pipes chased into brickwork including brown paper lagging	m	60		
	G 25 GR 20 B 15				
20	15mm Pipes laid in and including trenches not exceeding 1m deep	m	55		
	GR 55				
	Extra over Polypropylene pipes for brass compression fittings				
21	15mm Fittings	No	180		
	G 70 GR 60 B 50				
	TAPS, VALVES, ETC				
	SANS approved				
22	15mm Brass stopcock	No	11		
	G 4 GR 5 B 2				
23	15mm stainless steel bib-tap	No	9		
	G 3 GR 4 B 2				
	Disinfecting				
24	Disinfecting water pipe and tank system	Item			
	I 1				
	Testing				
25	Testing water pipe system	Item			
	I 1				
	AS BUILT DRAWINGS				
	Drawings				
26	Provision of as-built drawings	Item			
	I 1				
	Carried to Collection			R	

		Amount
BILL NO. 12 **PLUMBING AND DRAINAGE** **COLLECTION**		
	Page No	
Brought Forward from Page	123	
	124	
	125	
	126	
	127	
	128	
Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 13

GLAZING

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Float glass

The term 'float glass' is used for monolithic annealed glass

Laminated glass

Laminated glass to have polyvinyl butyral (PVB) interlayer(s)

Certificates

Rates for glazing shall include for the relevant glazing certificates to be issued at completion of the project

GLAZING TO STEEL WITH PUTTY

4mm Frosted glass:

1	Panes exceeding 0.5m² and not exceeding 1m²	m²	8	
	G 3 GR 4 B 1			

TOPS, SHELVES, DOORS, MIRRORS, ETC

6mm Silvered float glass copper backed mirrors with 3mm bevelled and polished edges, holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete

2	Mirror 600 x 500mm high with 30mm screws	No	9	
	G 3 GR 4 B 2			

Glazing Certificate

3	Issue of AAAMSA Glass & Glazing Certificate by registered and authorised entity.	Item		
	B 1			
	Carried to Summary			R

	Unit	Quantity	Rate	Amount

BILL NO. 14

PAINTWORK

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to the relevant clauses in the Standard Preambles for Trades 2008 which are incorporated at the back of these Bills of Quantities.

SUPPLEMENTARY PREAMBLES

Propriety items or materials:

Proprietary items or materials where specified are to be of the brand specified - or other approved - by the Head: Works.

PREPARATORY WORK TO EXISTING WORK

Previously painted plastered surfaces

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

Previously painted metal surfaces

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal

Previously painted wood surfaces

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

COLOURS

Colours, etc.

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

Carried to Collection			R	

		Unit	Quantity	Rate	Amount
	ON INTERNAL FLOATED PLASTER SURFACES				
	One coat alkali resistant primer and two coats "Plascon Wall and All" or other approved acrylic emulsion paint				
1	Walls	m²	293		
	G 101 GR 119 B 73				
	ON FIBRE-CEMENT BOARD SURFACES				
	One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use				
2	Ceilings	m²	81		
	G 30 GR 29 B 22				
3	Fascias and barge boards, including priming metal jointing strips	m²	37		
	G 13 GR 13 B 11				
	ON WOOD SURFACES				
	One coat primer and three coats premium quality polyurethane enamel paint				
4	Doors	m²	54		
	G 15 GR 24 B 15				
	ON METAL SURFACES				
	Two coats bitumin paint				
5	Backs of galvanised steel door frames, linings, etc. not exceeding 300mm wide	m	77		
	G 26 GR 36 B 15				
	Carried to Collection			R	

		Amount
BILL NO. 14 **PAINTWORK** **COLLECTION**		
	Page No	
Brought Forward from Page	131 132	
Carried to Summary	**R**	

		Unit	Quantity	Rate	Amount

BILL NO. 15

EXTERNAL WORKS

Key:	Location Description:
Un/A	Unallocated
G	Girls Ablution Block
GR	Grade R Ablution
B	Boys Ablution Block
I	Item Location (Auto)
A	Staff Ablution Block
Ext	External Works

The tenderer is referred to SANS 10400 for full details of performance and specification requirements. All products and workmanship shall be in compliance with the relevant sections of SANS and approved accordingly.

Explosives

No explosives whatsoever may be used for demolition purposes unless otherwise stated

General

The contractor shall carry out the whole of the works with as little mess and noise as possible and with minimum disturbance to adjoining classroom blocks and their students. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent

Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent

Removal of materials:

Where removal is included in the heading, sub-heading or item description, prices shall be deemed to include for the necessary costs in removal and appropriate disposal of materials including but not limited to labour, transportation and disposal costs. No further claims in this regard will be entertained.

THE FOLLOWING IN STORMWATER CHANNELS TO BUILDINGS

Earthworks

1	Excavation in earth not exceeding 2m deep to reduce levels	m³	29		
	Ext 29				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
2	Extra over excavations for carting away excavated material to a dumping site to be located by the contractor	m³	29		
	Ext 29				
3	Compaction of ground surface under floor, etc including scaryfing for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% MOD AASHTO Density	m²	145		
	Ext 145				
4	Earth filling of G5 material in accordance with SABS 1200 DM, compacted to 98% MOD AASHTO density in under floors	m³	14		
	Ext 14				
5	Approved brand of anti-termite soil poison applied under floors by a registered pest control company and guaranteed against termites infestation for 10 years	m²	145		
	Ext 145				
	Soil Poisoning Certificate				
6	Issue of Soil Poisoning Certificate by registered and authorised entity.	Item			
	I 1				
	Reinforced concrete cast in-situ channels:				
7	2000mm Wide x 130mm thick overall mesh reinforced concrete "V"-shaped stormwater channels(1000mm wide) and apron slab (1000mm wide) combination of 25 Mpa/19mm concrete construction, "V" -shaped stormwater channel section to be 100mm thick at center of 500mm wide adjacent surfaces, and both "V" -shaped stormwater channel and apron slab with and including Ref 193 mesh reinforcement, 250 micron waterproof sheeting and rough formwork (Degree of Accuracy III) not exceeding 300mm high extreme to vertical edges of channels and apron slabs. Channels and apron slabs to be cast in 1000mm long panels, with and including bitumen impregnated fibreboard joints between adjacent panels and between panels and adjacent brick walls with approved joint sealant to all joints, and the whole to have a wood floated finish	m	72		
	Ext 72				
8	Extra over 2000mm wide concrete stormwater channel and apron slab for corner	No	7		
	Ext 7				
	THE FOLLOWING IN 3 No NEW WATER TANKS AND PLINTHS TO WATER STORAGE TANKS				
	Earthworks				
9	Excavation in earth not exceeding 2m deep for trenches	m³	9		
	Ext 9				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
10	Extra over all excavation for loading, carting and dumping surplus excated material (no allowance made for increase in bulk) off site to a dump site to be located by the contractor	m³	7		
	Ext 7				
11	Backfilling from excavations to trenches and holes compacted to 93% MOD AASHTO density.	m³	2		
	Ext 2				
12	Earth filling of G7 material in accordance with SABS 1200 DM, compacted to 98% MOD AASHTO density in trenches and under surface beds	m³	5		
	Ext 5				
13	Risk of collapse to sides of trenches and hole excavations not exceeding 2m deep	m²	31		
	Ext 31				
14	Approved brand of anti-termite soil poison applied by a registered pest control company and guaranteed against termite infestation for 10 years under floors, steps, paving, etc.	m²	13		
	Ext 13				
15	Ditto but to bottoms and sides of trenches	m²	46		
	Ext 46				
	Soil Poisoning Certificate				
16	Issue of Soil Poisoning Certificate by registered and authorised entity.	Item			
	I 1				
	Concrete, Formwork and Reinforcement				
17	25 Mpa/19mm unreinforced concrete in footings	m³	3		
	Ext 3				
18	25 Mpa/19mm reinforced concrete in surface beds	m³	2		
	Ext 2				
19	Finishing top surface of concrete smooth with a wood float	m²	26		
	Ext 26				
20	Rough formwork (Degree of accuracy III) in narrow widths not exceeding 300mm wide to sides of surface beds	m	30		
	Ext 30				
21	12mm Slip joints not exceeding 300mm wide between horizontal concrete and brick surfaces including cement motar bed and one layer 250 micron "Console Plastics Gunplas Black" or other approved waterproofing sheeting	m	30		
	Ext 30				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
22	Ref 395 Mesh reinforcement to surface beds	m²	62		
	Ext 62				
	Waterproofing				
23	One layer of 250 micron "Console Plastics Gunplas Black" or other approved waterproof sheeting under surface beds	m²	13		
	Ext 13				
	Masonry				
24	Brickwork in foundations of NFX bricks (14MPa Nominal Compressive Strength) in class I mortar in One brick walls	m²	9		
	Ext 9				
25	Brickwork in superstructure of NFP bricks (14MPa Nominal Compressive Strength) in class I mortar in One brick walls	m²	15		
	Ext 15				
26	Extra over brickwork for face brickwork for foundations in "Corobrik Firelight Satin FBX" face bricks, with recessed vertical and horizontal jointing	m²	7		
	Ext 7				
27	Extra over brickwork for face brickwork for super structure in "Corobrik Firelight Satin FBX" face bricks, with recessed vertical and horizontal jointing	m²	15		
	Ext 15				
28	150mm Wide brickwork reinforcement built in horizontally	m	99		
	Ext 99				
	Tanks, etc				
	Water storage tanks shall carry a minimum 8 year manufacturer guarantee, which certificate shall be handed over to the Client upon practical completion				
29	"JoJo Tanks - JJG" or other equally approved 5000 litre water tank, complete with vermin proof lid, inlets, outlets, etc. and anchored down with and including 4mm diameter galvanised mild steel wire loop double and fixed to top of tank with 15mm diameter rubber hose as sleeve, and anchored to top of concrete plinth with and including 4 No. Y10 high tensile steel reinforcement rods cast into concrete plinth	No	3		
	Ext 3				
	Carried to Collection			R	

		Unit	Quantity	Rate	Amount
30	20 mm diameter "Tommy" or other approved PVC ball valve with an including reducing bushes fixed with 90 degree PVC screw elbow, fitting into and including a 22mm extension pipe approximately 250mm long including barrel, nipple and socket and 3mm galvanised steel plate support, with 1 No. 23mm diameter hole at top for pipe inlet and 2no 18mm diameter holes at bottom for and including 2 No. M18 x 15mm rawl bolts cast into concrete plinths (Concrete plinth elsewhere measured)	No	3		
	Ext 3				
31	25mm "Polycop" or other approved polypropylene pipes	m	20		
	Ext 20				
32	Extra over 25mm Polypropylene pipes for fitting	No	10		
	Ext 10				
	THE FOLLOWING IN INTERLOCKING BLOCK RETAINING STRUCTURES DESIGNED, SUPPLIED AND INSTALLED COMPLETE BY THE MANUFACTURE OR APPROVED AGENT				
	Earthworks (CPAP Work Group 104)				
	Excavations				
33	Excavate in soft excavations and compacted fill material for surface trenches not exceeding 2m deep and deposit on the site	m³	17		
	Ext 17				
34	Backfilling from excavations to trenches and holes compacted to 93% MOD AASHTO density.	m³	3		
	Ext 3				
	Course river sand filling supplied by the contractor				
35	Behind retaining wall compacted to 95% MOD AASHTO density	m³	5		
	Ext 5				
	Extra over all excavations for carting away				
36	Surplus material from stock piles on site to a dumping site to be located by the contractor	m³	14		
	Ext 14				
	Risk of collapse of excavations				
37	Sides of trench and hole excavations not exceeding 1.5m deep	m²	29		
	Ext 29				
	Carried to Collection			**R**	

		Unit	Quantity	Rate	Amount
	Concrete (CPAP Work Group No. 110)				
	Unreinforced concrete 15MPa/19mm in :				
38	Blinding	m³	2		
	Ext 2				
	Unreinforced concrete 25MPa/19mm in :				
39	Strip footings	m³	3		
	Ext 3				
	"Loffelstein" Precast concrete interlocking planter blocks finished smooth on exposed surfaces. (Work Group No. 112)				
40	Retaining structure with stepped face and curves as required to suit slopes using type TB 300 interlocking planter blocks laid with horizontal bed joints including backfilling with selected earth obtained from the excavations and filling the blocks with garden soil in superstructure	m²	24		
	Ext 24				
41	'Bidum A4' or other approved geotextile membrane minimum 1 layer behind retaining wall	m²	25		
	Ext 25				
	Stormwater Drainage				
42	100mm Diameter slotted Upvc agricultural pipe laid in trenches not exceeding 2m including 19mm crushed stone encasing of 150mm surround and "Bidim U24" or other approved geofabric filter blanket around encasing with 150mm side and 300mm end laps including stitching	m	12		
	Ext 12				
	STORMWATER DRAINAGE (CPAP WORK GROUP NO. 146)				
	Upvc pipes				
43	100mm Diameter Upvc pipes laid in and including trenches exceeding 1m and not exceeding 2m deep	m	37		
	Ext 37				
	Carried to Collection			R	

		Amount
BILL NO. 15 **EXTERNAL WORKS** **COLLECTION**		
	Page No	
Brought Forward from Page	134	
	135	
	136	
	137	
	138	
	139	
Carried to Summary	**R**	

Bill No.	**SUMMARY**	Page		Amount
1	EARTHWORKS	87		
2	CONCRETE, FORMWORK AND REINFORCEMENT	91		
3	PRECAST CONCRETE	92		
4	MASONRY	97		
5	WATERPROOFING	100		
6	ROOF COVERINGS	104		
7	CARPENTRY AND JOINERY	110		
8	CEILINGS PARTITIONS AND ACCESS FLOORING	113		
9	IRONMONGERY	116		
10	METALWORK	119		
11	PLASTERING	122		
12	PLUMBING AND DRAINAGE	129		
13	GLAZING	130		
14	PAINTWORK	133		
15	EXTERNAL WORKS	140		
	SubTotal excluding Value Added Tax			
	Carried to Final Summary		**R**	
	SUMMARY			

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
Bill No.1	**PRELIMINARIES AND GENERAL**				
	Fixed Cost Items:				
1	Contractual requirements	sum	1		
2	Co-operation and Programming with others	sum	1		
3	Clearing of site on Contract completion	sum	1		
4	Name Board	ea	1		
5	Ablution and latrine facilities	sum	1		
6	Office and storage facilities	sum	1		
7	Access	sum	1		
8	Tools and equipment	sum	1		
9	Living accommodation	sum	1		
10	Supervision during construction	sum	1		
11	Temporary construction electrical connection	sum	1		
12	Compliance with OHS Act Requirements	sum	1		
13	Other fixed charge obligations	sum	1		
14	Health and Safety Plan	sum	1		
15	Submission of commencement and completion form/cards to eThekwini Electricity	sum	1		
	Time Dependant Costs:				
16	Contractual requirements	sum	1		
17	Storage and protection of materials and equipment	sum	1		
18	Contract Insurance	sum	1		
19	Operate and maintain facilities on site	sum	1		
20	Office and storage facilities	sum	1		
21	Tools and equipment	sum	1		
22	Ablution and latrine facilities	sum	1		
23	Access	sum	1		
24	Living accommodation	sum	1		
25	Supervision during construction	sum	1		
26	Temporary construction electrical connection	sum	1		
27	Other time dependant obligations	sum	1		
28	Compliance with OHS Act Requirements	sum	1		
	Additional Items:				
29	Any additional items that the Tenderer may wish to detail	sum	1		
	TOTALS FOR BILL NO.1 (EXCLUDING VAT)				

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
Bill No.2	**ELECTRICAL INSTALLATION**				
	Refer to the specification and drawings				
	Distribution Boards and DB Equipment Supply and Install Form 1 Separation, 5kA rated Distribution Boards as specified below, complete with mounting accessories and etc. (Switchgear measured under DB Equipment).				
1	24 Way Flush Mounted Distribution Board including Metal Cover with cutout, Mandatory Warning Signage, Flush Galvanized tray, Mounting Rails for switchgear, 2 x Neutral Bars and Earth bar.	No	10		
2	12 Way Flush Mounted Distribution Board including Metal Cover with cutout, Mandatory Warning Signage, Flush Galvanized tray, Mounting Rails for switchgear, 2 x Neutral Bars and Earth bar.	No	1		
3	12 Way Surface Mounted Distribution Board including Metal Cover with cutout, Mandatory Warning Signage, Surface Metal Box Housing, Mounting Rails for switchgear, 2 x Neutral Bars and Earth bar.	No	2		
	Supply and Install the following 6kA rated Switchgear Equipment into the above Distribution boards as specified below, including busbars, rated wiring tails and labelling.				
4	80A TP 6kA Isolator (Main Switch)	No	1		
5	63A DP 6kA Isolator (Main Switch)	No	10		
6	63A DP Earth Leakage Isolating Unit with 30mA trip rating.	No	13		
7	5A SP 6kA MCB (PEC circuit)	No	11		
8	10A SP 6kA MCB (Lights, Feeder Circuit)	No	42		
9	20A SP 6kA MCB (Plugs, Airconditioner, Feeder Circuit)	No	35		
10	30A SP 6kA MCB (Stove Circuit)	No	3		
11	20A 4P Contactor with 230V Coil (Exterior Light control).	No	1		
12	20A DP Contactor with 230V Coil (Exterior Light control)	No	11		
13	16A 1 Way Light Switch mounted in DB (Bypass Switch for PEC circuit)	No	15		
14	Type 2 6kA Surge Arrester 1P + N with indicators.	No	17		
15	Blank Covers for Spare Ways in Cutouts.	No	105		

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
	Wiring Channel Supply and Install OL2000 galvanised steel horizontal Wiring Channel as specified.				
16	Hot dipped galvanised OL2000 trunking or similar approved, complete with OL2000 PVC covers, T-off, Elbows, 20mm dia knock-outs (suitable for 20mm diameter conduit) at 300mm centres on both sides and including approved hangers at 1200mm centres, suspended from roof trusses or concrete slabs on M12 threaded bolt not exceeding 1200mm down (NB: Any drilling onto slabs shall be approved by Structural Engineer prior commencement)	m	100		
	Conduit and Conduit Accessories Supply and Install Conduit and conduit accessories as specified.				
17	20mm Diameter PVC conduit including bends, T-offs, saddles, joints, etc, fastened on surface.	m	3200		
18	20mm Diameter PVC conduit including bends, T-offs, saddles, joints, etc, chased into brickwork..	m	1200		
19	20mm Diameter Galvanized conduit including bends, T-offs, saddles, joints, etc, fastened on surface.	m	100		
20	25mm Diameter Galvanized conduit including bends, T-offs, saddles, joints, etc, fastened on surface.	m	45		
21	32mm Diameter PVC conduit including bends, T-offs, saddles, joints, etc, fastened on surface.	m	15		
22	32mm Diameter PVC conduit including bends, T-offs, saddles, joints, etc, chased into brickwork..	m	25		
23	32mm Diameter Galvanized conduit including bends, T-offs, saddles, joints, etc, fastened on surface.	m	100		
24	40mm Diameter Galvanized conduit including, saddles, joints, etc, fastened on surface for kicker Pipe.	m	35		
25	PVC 60mm Diameter round box Flush or Surface mounted, complete with cover for 20mm Diameter PVC Conduit.	No	335		
26	Galvanized 60mm Diameter round box Surface mounted, complete with cover for 20mm diameter conduit.	No	25		
27	Galvanized 50mm x 100mm box Flush mounted for 20mm Diameter Conduit.	No	80		
28	Galvanized 100mm x 100mm box Flush mounted for 20mm Diameter Conduit.	No	85		
29	Galvanized 60mm Diameter round box Surface mounted, complete with cover for 25mm diameter conduit.	No	5		
30	Galvanized 100mm x 100mm box Flush mounted for 32mm Diameter Conduit.	No	5		
31	Mild Steel 50mm x 100mm box Surface mounted for 20mm Diameter Conduit.	No	80		
32	Mild Steel 100mm x 100mm box Surface mounted for 20mm Diameter Conduit.	No	85		

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
33	Mild Steel 100mm x 100mm box Surface mounted for 32mm Diameter Conduit.	No	5		
34	PVC or Galvanized ends for 20mm Diameter Conduit.	No	70		
35	PVC or Galvanized ends for 25mm Diameter Conduit.	No	5		
36	PVC or Galvanized ends for 32mm Diameter Conduit.	No	5		
	Conductors Supply and Install conductors into Wiring Channel, Conduit and/or Power Skirting as specified.				
37	1.5mm² PVC insulated stranded copper conductor	m	11500		
38	2.5mm² PVC insulated stranded copper conductor	m	4000		
39	4mm² PVC insulated stranded copper conductor	m	500		
	Light Switches, Isolators and Socket Outlets: Supply and Install light switches, Isolators and Sockeyt Outlets onto Flush or Surface mounted boxes (not including boxes).				
40	Crabtree or similar approved single toggle one way 16A light switch complete with white engraved/labelled cover plate.	No	50		
41	Crabtree or similar approved single 16A RSA three-pin V-Slim switched socket outlet complete with white engraved/labelled cover plate.	No	80		
42	Crabtree or similar approved Double 16A three-pin switched socket outlet complete with white engraved/labelled cover plate.	No	5		
43	Crabtree or similar approved surface 5A Un-Switched Socket Outlet Mounted within 0.5m of the light fitting, Complete with white engraved/labelled cover plate.	No	210		
	Light Fittings and Equipment Supply and Install light fittings and equipment as specified.				
44	Type A - 1200mm 2 Lamp 16W LED Cool White Linear surface mounted Luminaire, SABS approved.	No	165		
45	Type B - Round IP65 20W LED Bulkhead Luminaire, SABS approved.	No	100		
46	Type C - Industrial 70W 3 x Metal Blade Ceiling Fan supplied complete with Wall Control Unit, SABS approved.	No	45		
47	Type D - Round IP 65 40W LED Pole Top luminaire, supplied complete with 4,1m Black Painted Galvanized metal 60mm Diameter poles.	No	15		
48	Royce Thompson Microstar 1000 Miniature Photocell Switch Installed in a ABB J1 Junction Box IP 65 Rated, Complete with Circuit Designation information	No	15		

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
	Power Skirting				
	Supply and Install PVC 2 Compartment Power Skirting, complete with covers, base cover joints and individual cover joints, 90 degree internal bends and equipment and accessories as specified below.				
49	2 Compartment, 2 cover PVC Power Skirting spupplied complete with covers.	m	50		
50	90 degree Internal PVC Power Skirting bends	No	4		
51	PVC Power Skirting End Caps	No	4		
52	PVC Power Skirting Base Cover Joints	No	15		
53	PVC Power Skirting Cover Joints	No	30		
54	Crabtree or similar approved single 16A three-pin switched socket outlet complete with white engraved/labelled cover plate mounted on Power Skirting.	No	8		
55	RJ 45 Data Outlet including cradle and cover on Power Skirting.	No	8		
56	RJ 11 Telephone Outlet including cradle and cover on Power Skirting.	No	8		
	Testing, Commissioning and As-Builts				
57	Testing and commissioning and Compliance Certificate for the complete Electrical Installation including Test report to SANS and OHSAct requirements.	No.	1		
58	Preparation and handing over of "As Built" drawings, indicating all conductor routes, exact spike positions and depths and provision of all test certificates for the entire building.	Sum	1		
59	Allow for full testing, balancing and commissioning the entire electrical installation.	Sum	1		
	TOTALS FOR BILL NO.2 (EXCLUDING VAT)				**R -**

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
Bill No.3	**SITE RETICULATION**				
	Refer to the specification and drawings				
	Trenches Excavation of trenches as specified.				
1	Cable or sleeve trenches not exceeding 1m deep	m³	145		
2	Extra over excavations for cable or sleeve trenches in soft rock	m³	30		
3	Extra over excavations for cable or sleeve trenches in hard rock	m³	15		
	Cable Sleeves Supply and Installation of cable sleeves in trenches as specified.				
4	50mm Diameter u-PVC cable sleeve piping including short lengths, jointing and bends	m	110		
5	75mm Diameter u-PVC cable sleeve piping including short lengths, jointing and bends	m	475		
6	110mm Diameter u-PVC cable sleeve piping including short lengths, jointing and bends	m	25		
	Cables Supply and Installation of cables layed in ground,drawn through cable sleeves and installed on cable tray, including for wastage.				
7	25mm² x 4c, Cu, PVC/PVC/SWA-ECC/PVC	m	120		
8	10mm² x 3c, Cu, PVC/PVC/SWA-ECC/PVC	m	130		
9	6mm² x 3c, Cu, PVC/PVC/SWA-ECC/PVC	m	350		
10	4mm² x 3c, Cu, PVC/PVC/SWA-ECC/PVC	m	350		
	Cable Terminations Supply and Installation of Cable Terminations, including glanding onto DB.				
11	25mm² x 4c, Cu, PVC/PVC/SWA-ECC/PVC	No.	4		
12	10mm² x 3c, Cu, PVC/PVC/SWA-ECC/PVC	No.	8		
13	6mm² x 3c, Cu, PVC/PVC/SWA-ECC/PVC	No.	12		
14	4mm² x 3c, Cu, PVC/PVC/SWA-ECC/PVC	No.	38		
	Cable Warning Tape Supply and Installation of cable warning tape 300mm above cable in trenches.				
15	Cable warning tape	m	600		
	Draw Wire Supply and Installation of Draw wire in cable sleeves.				
16	1.2mm Diameter galvanized draw wire	m	600		
	Testing and Commissioning				
17	Testing and commissioning and Compliance Certificate for the complete Electrical Installation including Test report to SANS and OHSAct requirements	No.	1		
	TOTALS FOR BILL NO.3 (EXCLUDING VAT)				

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
Bill No.4	**EARTHING AND LIGHTNING PROTECTION**				
	Refer to the specification and drawings				
	Earthing and Lightning Protection Installation Supply and Installation of Lightning Protection and earthing equipment by specialist contractor as specified.				
1	1.8m x 16mm diameter copper earth electrodes driven into the ground, complete with brass coupling between rods (Bearing SABS Mark)	No	60		
2	16mm Diameter copper earth spike clamp	No	60		
3	25mm Diameter Galvanised conduit including bends, T-offs, saddles, joints, etc.	m	300		
4	Flush mounted S15 Duo weatherproof york box test complete with PVC sliding lid and stainless steel screws (mounted at 300mm Above finish floor level)	No	60		
5	10mm² Aluminium Roof conductor	m	60		
6	70mm² Stranded PVC insulated Copper Down Conductor	m	300		
7	70mm² Bare Copper earth conductor	m	800		
8	Bonding joints, etc. complete for 70mm² conductor, including lugs, nuts, bolts and washers	No	60		
9	Provisional Sum for Unforseen Earthing and Lightning Protection Compliance	Sum	1	R 50 000.00	R 50 000.00
	Testing and Commissioning				
10	Survey site and provide soil resistivity tests, conduct risk assessment & report, detailed installation drawings for Engineers comment, etc, prior to commencement of installation and procurement of materials	Sum	1		
11	Issue earthing and lightning protection certificates for each of the earthing and lightning protection systems installed	Sum	1		
12	Allow for Earthing / Bonding of water pipes, DB's and kiosks complete as required by the applicable regulations and consultant's specification	Sum	1		
	TOTALS FOR BILL NO.4 (EXCLUDING VAT)				**R 50 000.00**

ITEM NO	DESCRIPTION	UNIT	QTY	SUPPLY AND INSTALL	AMOUNT
Bill No.5	**ADDITIONAL ITEMS**				
	Refer to the specification and drawings				
	Schedule of Additional Equipment				
1	Make safe, disconnect and dispose off-site the entire schools redundant electrical installation (All inclusive)	Sum	1		
2	Schedule any additional equipment to ensure a fully operational system not included in this Bill of quantities. Furnish details:-	Sum	1		
	TOTALS FOR PART 5 (EXCLUDING VAT)				

SUMMARY

BILL NO.1 - PRELIMINARIES AND GENERAL	
BILL NO.2 - ELECTRICAL INSTALLATION	
BILL NO.3 - SITE RETICULATION	
BILL NO.4 - LIGHTNING PROTECTION AND EARTHING	
BILL NO.5 - ADDITIONAL ITEMS	
TOTAL A (EXCLUDING VAT) =	

Item No			Quantity	Rate	Amount R
	PROVISIONAL SUMS : SECTION 5				
	Note to tenderers: As CPGs may not provide any bidder a competitive advantage. Provisional amounts and fixed percentages for profit and attendance have been provided. Only the provisional amount will be adjusted once the awarded tender amount and/or the beneficiaries have been appointed, and the final values have been ascertained.				
	MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS				
	Provision is made for the Minimum Targeted Local Building Material Manufacturers CPG in the execution of this project as described in C3.1 Project Specifications. Allowance for monitoring and monthly reporting on material purchased from Local Building Material Manufacturers by main contractor and subcontractors based on determination by Employer taking into account specific project variables	PS	1	R48 040,46	R48 040,46
	Allowance for profit and attendance, all inclusive of associated costs to the contractor for implementation.	%			
	Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%			
	MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS				
	Provision is made for the Minimum Targeted Local Building Material Suppliers CPG in the execution of this project as described in C3.1 Project Specifications. Allowance for monitoring and monthly reporting on material purchased from Local Building Material Suppliers by main contractor and subcontractors based on determination by Employer taking into account specific project variables	PS	1	R48 040,46	R48 040,46
	Allowance for profit and attendance, all inclusive of associated costs to the contractor for implementation.	%			
	Allowance for attendance all inclusive of associated costs to the contractor for implementation	%			
				R	
	Carried Forward to Summary of Section No.				
	SECTION NO.5 - PROVISIONAL SUMS				
	Bill No. 1 Provisional Sums				

Item No			Quantity	Rate	Amount R
	MINIMUM TARGETED ENTERPRISE DEVELOPMENT				
	A provisional amount has been allowed for in the execution of this project as described in C3.1 Project Specifications. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises including monitoring and monthly reporting.	PS	1	R480 404,61	R480 404,61
	Allowance for profit all inclusive of associated costs to the contractor for implementation.	%			
	Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%			
	LABOUR INTENSIVE PARTICIPATION GOAL				
	Labour Intensive Participation Goal - Allowance for monthly reporting of labour intensive works by main contractor based on determination by Employer taking into account specific project variables. Allowance for monitoring and monthly reporting on Works executed by means of Labour Intensive methods by main contractor and subcontractors based on determination by Employer taking into account specific project variables	PS	1	R72 000,00	R72 000,00
	Allowance for profit all inclusive of associated costs to the contractor for implementation.	%			
	Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%			
	Carried to Collection			R	
	SECTION NO.5 – ASBESTOS REPLACEMENT Bill No. 1 Provisional Sums				

MINIMUM 30% SUB-CONTRACTING				
Provision is made for 30% subcontracting to SMMEs in the execution of this project as described in C3.1 Project Specifications . This is the contractors allowance for the P&G's for the 30% sub-contractors (SMME's).The Employer will define the actual P&G items applicable to the SMME's after tender award	PS	1	R497 218,77	R497 218,77
Allowance for profit and attendance, all inclusive of associated costs to the contractor for implementation.	%			
Allowance for attendance all inclusive of associated costs to the contractor for implementation.	%			
Carried Forward to Summary of Section No.				
SECTION NO.5 - PROVISIONAL SUMS Bill No. 1 Provisional Sums			R	

Final Summary - Bills of Quantities

		Page	Amount
1	Preliminaries	P 25	
2	Builders Work - Existing Buildings	83	
3	Builders Work - Ablution	141	
4	Electrical	E9	
5	Provisional Sums	-3-	
	Sub Total		
	CONTINGENCY AMOUNT Allow 5% Contingency Amount for the unforeseen and the sum provided is under the sole control of the client and upon approval by the Client Representative and deducted in whole or in part.		
	Sub Total before VAT		
	ADD VAT @ 15%		
	Carried to Form of Offer and Acceptance	**R**	
	FINAL SUMMARY CARRIED TO FORM OF OFFER AND ACCEPTANCE		