



## DEFINITIONS

### 1 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

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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: \_\_\_\_\_

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<b><u>OBJECTIVE AND PREPARATION</u></b>				
2	<b>A2.0 OFFER, ACCEPTANCE AND PERFORMANCE</b>  Clause 2.0  Fixed: _____ Value related: _____ Time related: _____	Item		
3	<b>A3.0 DOCUMENTS</b>  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 <b>contractor</b> shall supply and keep a copy of the <b>JBCC</b> Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the <b>site</b> , to which the <b>employer, principal agent</b> and <b>agents</b> shall have access at all times  Clause 3.10 is amended by replacing the second reference to " <b>principal agent</b> " with the word " <b>employer</b> "  Fixed: _____ Value related: _____ Time related: _____	Item		
4	<b>A4.0 DESIGN RESPONSIBILITY</b>  Clause 4.0  Clause 4.3 is amended by replacing it with the following:  No clause  Fixed: _____ Value related: _____ Time related: _____	Item		
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5	<p><b>A5.0 EMPLOYER'S AGENTS</b></p> <p>Clause 5.0</p> <p>Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
6	<p><b>A6.0 SITE REPRESENTATIVE</b></p> <p>Clause 6.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
7	<p><b>A7.0 COMPLIANCE WITH REGULATIONS</b></p> <p>Clause 7.0</p> <p>Note: A separate clause has been included in Section C : Specific Preliminaries of the <b>bills of quantities / lump sum document</b> for the <b>contractor</b> to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
8	<p><b>A8.0 WORKS RISK</b></p> <p>Clause 8.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
9	<p><b>A9.0 INDEMNITIES</b></p> <p>Clause 9.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
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10 **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

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**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**

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- (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

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**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

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11	<b>A11.0 LIABILITY INSURANCES</b>  Clause 11.0  Fixed: _____ Value related: _____ Time related: _____	Item		
12	<b>A12.0 EFFECTING INSURANCES</b>  Clause 12.0  Fixed: _____ Value related: _____ Time related: _____	Item		
13	<b>A13.0 No clause</b>	N/A		
14	<b>A14.0 SECURITY</b>  Clause 14.0  Clauses 14.1 - 14.8 are amended by replacing them with the following:  14.1 In respect of contracts with a <b>contract sum</b> up to R1 million, the <b>security</b> to be provided by the <b>contractor</b> to the <b>employer</b> will be a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT)  14.1.1 The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(A)  14.1.2 The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the payment reduction <b>security</b> or portions thereof to the <b>contractor</b>			
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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

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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

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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**

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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: \_\_\_\_\_

## **EXECUTION**

### 15 **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: \_\_\_\_\_

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16	<p><b>A16.0 ACCESS TO THE WORKS</b></p> <p>Clause 16.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
17	<p><b>A17.0 CONTRACT INSTRUCTIONS</b></p> <p>Clause 17.0</p> <p>Clause 17.1.11 is amended by deleting the words "and the appointment of <b>nominated</b> and <b>selected subcontractors</b>"</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
18	<p><b>A18.0 SETTING OUT OF THE WORKS</b></p> <p>Clause 18.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
19	<p><b>A19.0 ASSIGNMENT</b></p> <p>Clause 19.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
20	<p><b>A20.0 NOMINATED SUBCONTRACTORS</b></p> <p>Clause 20.0</p> <p>Clause 20.1.3 is amended by replacing it with the following:</p> <p>No clause</p> <p>Note: See item B9.1 hereinafter for adjustment of attendance on <b>nominated subcontractors</b> executing work allowed for under provisional sums</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
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21	<p><b>A21.0 SELECTED SUBCONTRACTORS</b></p> <p>Clause 21.0</p> <p>Clause 21 is amended by replacing it with:</p> <p>No clause</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
22	<p><b>A22.0 EMPLOYER'S DIRECT CONTRACTORS</b></p> <p>Clause 22.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
23	<p><b>A23.0 CONTRACTOR'S DOMESTIC SUBCONTRACTORS</b></p> <p>Clause 23.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><b><u>COMPLETION</u></b></p>	Item		
24	<p><b>A24.0 PRACTICAL COMPLETION</b></p> <p>Clause 24.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
25	<p><b>A25.0 WORKS COMPLETION</b></p> <p>Clause 25.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
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26	<p><b>A26.0 FINAL COMPLETION</b></p> <p>Clause 26.0</p> <p>Clause 26.1.2 is amended by inserting "#" next to 26.1.2</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
27	<p><b>A27.0 LATENT DEFECTS LIABILITY PERIOD</b></p> <p>Clause 27.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
28	<p><b>A28.0 SECTIONAL COMPLETION</b></p> <p>Clause 28.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
29	<p><b>A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION</b></p> <p>Clause 29.0</p> <p>Clause 29.2.5 is amended by replacing it with:</p> <p>No clause</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item	
30	<p><b>A30.0 PENALTY FOR NON-COMPLETION</b></p> <p>Clause 30.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p> <p><b><u>PAYMENT</u></b></p>	Item	
31	<p><b>A31.0 INTERIM PAYMENT TO THE CONTRACTOR</b></p> <p>Clause 31.0</p>		
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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**

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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: \_\_\_\_\_

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## 32 A32.0 ADJUSTMENT TO THE CONTRACT VALUE

Clause 32.0

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: \_\_\_\_\_

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## 33 A33.0 RECOVERY OF EXPENSE AND LOSS

Clause 33.0

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_ Time related: \_\_\_\_\_

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34	<p><b>A34.0 FINAL ACCOUNT AND FINAL PAYMENT</b></p> <p>Clause 34.0</p> <p>Clause 34.1 is amended by removing "#" next to 34.1</p> <p>Clause 34.2 is amended by inserting "#" next to 34.2</p> <p>Clause 34.8 is amended by deleting the words "where <b>security</b> as a fixed <b>construction guarantee</b> in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"</p> <p>Clause 34.13 is amended by replacing "seven (7) <b>calendar days</b>" with "twenty-one (21) <b>calendar days</b>" and deleting the words "subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due"</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item	
35	<p><b>A35.0 PAYMENT TO OTHER PARTIES</b></p> <p>Clause 35.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item	
<p><b>Carried to collection</b></p>			R
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36	<p><b><u>CANCELLATION</u></b></p> <p><b>A36.0 CANCELLATION BY EMPLOYER - CONTRACTOR'S DEFAULT</b></p> <p>Clause 36.0</p> <p>Clause 36.1 is amended by the addition of the following clauses:</p> <p>36.1.3 refuses or neglects to comply strictly with any of the conditions of contract</p> <p>36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa</p> <p>36.1.5 in the judgement of the <b>employer</b>, has engaged in <b>corrupt</b> or <b>fraudulent practices</b> in competing for or in executing the contract</p> <p>Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "<b>principal agent</b>" with "<b>employer</b>"</p> <p>Clause 36.0 is amended by the addition of the following clause:</p> <p>36.7 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b>; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b>. The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
37	<p><b>A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE</b></p> <p>Clause 37.0</p> <p>Clause 37.3.5 is amended by replacing "ninety (90)" with "one hundred and twenty (120)"</p>			
	<p style="text-align: right;"><b>Carried to collection</b></p>		R	
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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

### 38 **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: \_\_\_\_\_

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39	<p><b>A39.0 CANCELLATION - CESSATION OF THE WORKS</b></p> <p>Clause 39.0</p> <p>Clause 39.3.5 is amended by the addition of the following at the end of the sentence:</p> <p>"within one hundred and twenty (120) <b>working days</b> of completion of such a report"</p> <p>Fixed:_____ Value related:_____ Time related:_____</p> <p><b><u>DISPUTE</u></b></p>	Item		
40	<p><b>A40.0 DISPUTE SETTLEMENT</b></p> <p>Clause 40.0</p> <p>Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"</p> <p>Clause 40.6 is amended by removing the reference to:</p> <p>No clause</p> <p>Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:</p> <p>Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the <b>mediator</b> and related costs</p> <p>Fixed:_____ Value related:_____ Time related:_____</p> <p><b><u>SUBSTITUTE PROVISIONS</u></b></p>	Item		
41	<p><b>A41.0 STATE CLAUSES</b></p> <p>Clause 41.0</p> <p>Fixed:_____ Value related:_____ Time related:_____</p>	Item		
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**CONTRACT VARIABLES**

42    **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: \_\_\_\_\_

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## **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: \_\_\_\_\_

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	<b><u>B3.0 THE SITE</u></b>			
50	<b>B3.1 Defined works area</b> Fixed: _____ Value related: _____ Time related: _____	Item		
51	<b>B3.2 Geotechnical investigation</b> Fixed: _____ Value related: _____ Time related: _____	Item		
52	<b>B3.3 Inspection of the site</b> Fixed: _____ Value related: _____ Time related: _____	Item		
53	<b>B3.4 Existing premises occupied</b> Fixed: _____ Value related: _____ Time related: _____	Item		
54	<b>B3.5 Previous work - dimensional accuracy</b> Fixed: _____ Value related: _____ Time related: _____	Item		
55	<b>B3.6 Previous work - defects</b> Fixed: _____ Value related: _____ Time related: _____	Item		
56	<b>B3.7 Services - known</b> Fixed: _____ Value related: _____ Time related: _____	Item		
57	<b>B3.8 Services - unknown</b> Fixed: _____ Value related: _____ Time related: _____	Item		
58	<b>B3.9 Protection of trees</b> Fixed: _____ Value related: _____ Time related: _____	Item		
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59	<b>B3.10 Articles of value</b>	Fixed: _____ Value related: _____ Time related: _____	Item
60	<b>B3.11 Inspection of adjoining properties</b>	Fixed: _____ Value related: _____ Time related: _____	Item
<b><u>B4.0 MANAGEMENT OF CONTRACT</u></b>			
61	<b>B4.1 Management of the works</b>	Fixed: _____ Value related: _____ Time related: _____	Item
62	<b>B4.2 Programme for the works</b>	Fixed: _____ Value related: _____ Time related: _____	Item
63	<b>B4.3 Progress meetings</b>	Fixed: _____ Value related: _____ Time related: _____	Item
64	<b>B4.4 Technical meetings</b>	Fixed: _____ Value related: _____ Time related: _____	Item
65	<b>B4.5 Labour and plant records</b>	Fixed: _____ Value related: _____ Time related: _____	Item
<b><u>B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</u></b>			
66	<b>B5.1 Samples of materials</b>	Fixed: _____ Value related: _____ Time related: _____	Item

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67	<b>B5.2 Workmanship samples</b> Fixed: _____ Value related: _____ Time related: _____	Item	
68	<b>B5.3 Shop drawings</b> Fixed: _____ Value related: _____ Time related: _____	Item	
69	<b>B5.4 Compliance with manufacturers' instructions</b> Fixed: _____ Value related: _____ Time related: _____	Item	
<b><u>B6.0 TEMPORARY WORKS AND PLANT</u></b>			
70	<b>B6.1 Deposits and fees</b> Fixed: _____ Value related: _____ Time related: _____	Item	
71	<b>B6.2 Enclosure of the works</b> Fixed: _____ Value related: _____ Time related: _____	Item	
72	<b>B6.3 Advertising</b> Fixed: _____ Value related: _____ Time related: _____	Item	
73	<b>B6.4 Plant, equipment, sheds and offices</b> Fixed: _____ Value related: _____ Time related: _____	Item	
74	<b>B6.5 Main notice board</b> Fixed: _____ Value related: _____ Time related: _____	Item	
75	<b>B6.6 Subcontractors' notice board</b> Fixed: _____ Value related: _____ Time related: _____	Item	
<b>Carried to collection</b>			R
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	<b><u>B7.0 TEMPORARY SERVICES</u></b>			
76	<b>B7.1 Location</b> Fixed: _____ Value related: _____ Time related: _____	Item		
77	<b>B7.2 Water</b> Fixed: _____ Value related: _____ Time related: _____	Item		
78	<b>B7.3 Electricity</b> Fixed: _____ Value related: _____ Time related: _____	Item		
79	<b>B7.4 Telecommunication facilities</b> Fixed: _____ Value related: _____ Time related: _____	Item		
80	<b>B7.5 Ablution facilities</b> Fixed: _____ Value related: _____ Time related: _____	Item		
	<b><u>B8.0 PRIME COST AMOUNTS</u></b>			
81	<b>B8.1 Responsibility for prime cost amounts</b> Fixed: _____ Value related: _____ Time related: _____	Item		
	<b><u>B9.0 ATTENDANCE ON N/S SUBCONTRACTORS</u></b>			
82	<b>B9.1 General attendance</b> Fixed: _____ Value related: _____ Time related: _____	Item		
83	<b>B9.2 Special attendance</b> Fixed: _____ Value related: _____ Time related: _____	Item		
	<b>Carried to collection</b>		R	
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84	<p><b>B9.3 Commissioning - fuel, water and electricity</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><b>B10.0 FINANCIAL ASPECTS</b></p>	Item		
85	<p><b>B10.1 Statutory taxes, duties and levies</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
86	<p><b>B10.2 Payment for preliminaries</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
87	<p><b>B10.3 Adjustment of preliminaries</b></p> <p>Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) <b>working days</b> of taking possession of the <b>site</b>" with "when submitting his priced <b>bills of quantities / lump sum document</b>"</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
88	<p><b>B10.4 Payment certificate cash flow</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><b>B11.0 GENERAL</b></p>	Item		
89	<p><b>B11.1 Protection of the works</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
90	<p><b>B11.2 Protection / isolation of existing / sectionally occupied works</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
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91	<b>B11.3 Security of the works</b> Fixed: _____ Value related: _____ Time related: _____	Item		
92	<b>B11.4 Notice before covering work</b> Fixed: _____ Value related: _____ Time related: _____	Item		
93	<b>B11.5 Disturbance</b> Fixed: _____ Value related: _____ Time related: _____	Item		
94	<b>B11.6 Environmental disturbance</b> Fixed: _____ Value related: _____ Time related: _____	Item		
95	<b>B11.7 Works cleaning and clearing</b> Fixed: _____ Value related: _____ Time related: _____	Item		
96	<b>B11.8 Vermin</b> Fixed: _____ Value related: _____ Time related: _____	Item		
97	<b>B11.9 Overhand work</b> Fixed: _____ Value related: _____ Time related: _____	Item		
98	<b>B11.10 Instruction manuals and guarantees</b> Fixed: _____ Value related: _____ Time related: _____	Item		
99	<b>B11.11 As built information</b> Fixed: _____ Value related: _____ Time related: _____	Item		
Carried to collection			R	
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100	<p><b>B11.12 Tenant installations</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><b><u>B12.0 SCHEDULE OF VARIABLES</u></b></p>	Item		
101	<p><b>B12.1 Schedule of variables</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p>This <b>schedule</b> 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 <b>Preliminaries</b></p> <p>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 <b>schedule</b>. Key cross reference clauses are italicised in [ ] brackets</p> <p><b>12.1 PRE-TENDER INFORMATION</b></p> <p>12.1.1 <b>Provisional bills of quantities</b> [2.2] The quantities are provisional <b>NO</b></p> <p>12.1.2 <b>Availability of construction documentation</b> [2.3] <i>Construction documentation is complete</i> <b>YES</b></p> <p>12.1.3 <b>Interests of agents</b> [2.4] Details:</p> <p>12.1.4 <b>Defined works area</b> [3.1] Details: As per contract data</p> <p style="text-align: right;"><b>Carried to collection</b></p> <p>Bill No. 1 PRELIMINARIES Moedwil Combined School Phase Two</p>	Item		
			R	



- 12.1.5 **Geotechnical investigation**  
[3.2] Details: As per contract data
- 12.1.6 **Existing premises occupied**  
[3.4] Specific requirements: As per contract data
- 12.1.7 **Previous work - dimensional accuracy**  
[3.5] Details:
- 12.1.8 **Previous work - defects**  
[3.6] Details:
- 12.1.9 **Services - known**  
[3.7] Details:
- 12.1.10 **Protection of trees**  
[3.9] Specific requirements: As per contract data
- 12.1.11 **Inspection of adjoining properties**  
[3.11] Specific requirements: As per contract data
- 12.1.12 **Enclosure of the works**  
[6.2] Specific requirements:
- 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 9180 x 3680 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 **[As per Drawing: MCS-PH2-SO-101]**

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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 3.35m, 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 **[As per Drawing: MCS-PH2-SB-101]**

12.1.15 **Subcontractors' notice board**

[6.6] A notice board is required

**NO**

12.1.16 **Water**

[7.2] Option A (by **contractor**)

**YES**

Option B (by **employer** - free of charge)

**NO**

Option C (by **employer** - metered)

**NO**

12.1.17 **Electricity**

[7.3] Option A (by **contractor**)

**YES**

Option B (by **employer** - free of charge)

**NO**

Option C (by **employer** - metered)

**NO**

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12.1.18 <b>Telecommunications</b>	[7.4] Telephone	YES	
	Facsimile	NO	
	E-mail	YES	
12.1.19 <b>Ablution facilities</b>	[7.5] Option A (by <b>contractor</b> )	YES	
	Option B (by <b>employer</b> )	NO	
12.1.20 <b>Protection of existing/sectionally occupied works</b>	[11.2] Protection is required	YES	
12.1.21 <b>Special attendance</b>	[9.2] <b>Subcontractor</b> (1) details:		
	<b>Subcontractor</b> (2) details:		
	<b>Subcontractor</b> (3) details:		
	<b>Subcontractor</b> (4) details:		
12.1.22 <b>Protection of the works</b>	[11.1] Specific requirements:		
12.1.23 <b>Disturbance</b>	[11.5] Specific requirements: The <b>contractor</b> shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the <b>works</b> all necessary temporary dust screens all to the satisfaction of the <b>principal agent</b>		
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- 12.1.24 **Environmental disturbance**  
[11.6] Specific requirements:
- 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:

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## **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

### 102 **C1.0 CONTRACT DRAWINGS**

*\* Select relevant paragraph and delete whichever is not applicable depending on whether the contract is based on a **bills of quantities** or **lump sum document***

\* The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed

\* A full set of drawings is issued with the tender documents indicating the full scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed

Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the **principal agent**

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_  
Time related: \_\_\_\_\_

Item

### 103 **C2.0 TRADE NAMES**

Wherever a trade name for any product has been described in the **bills of quantities / lump sum document**, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the **principal agent** being obtained prior to the closing date for submission of tenders

If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for

Fixed: \_\_\_\_\_ Value related: \_\_\_\_\_  
Time related: \_\_\_\_\_

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104	<p><b>C3.0 IMPORTED MATERIALS AND EQUIPMENT</b></p> <p>Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations.</p> <p>Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable)</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
105	<p><b>C4.0 VIEWING THE SITE IN SECURITY AREAS</b></p> <p>The <b>site</b> is situated in a security area and the tenderer must arrange with the unit commander or other responsible officer to obtain permission to enter the <b>site</b> for tendering purposes</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
106	<p><b>C5.0 COMMENCEMENT OF WORKS IN SECURITY AREAS</b></p> <p>As the <b>works</b> falls within a security area the <b>contractor</b> must give the unit commander or other responsible officer notice before commencement of the <b>works</b>. Should the <b>contractor</b> fail to make such arrangements, admission to the <b>site</b> may be refused and any additional costs will be for the <b>contractor's</b> account</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
Carried to collection			R	
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107	<b>C6.0 SECURITY CHECK OF PERSONNEL</b>			
	<p>The <b>principal agent</b> may require the <b>contractor</b> to have his personnel and workmen, or a certain number of them, security classified</p> <p>In the event of the <b>principal agent</b> requesting the removal of a person or persons from the <b>works</b> for security reasons, the <b>contractor</b> shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the <b>works</b> and the <b>site</b> and/or to any document or information relating to the <b>works</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
108	<b>C7.0 HIV/AIDS AWARENESS</b>			
	<p>It is required of the <b>contractor</b> to thoroughly study the HIV/AIDS Specification of the Department that must be read together with and is deemed to be incorporated under this Section of the <b>bills of quantities / lump sum document</b>. 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</p> <p>The <b>contractor</b> must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the <b>principal agent</b>, 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 <b>payment certificate</b> until the <b>contractor</b> provides satisfactory proof of compliance. The <b>contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment</p>			
	<p style="text-align: right;"><b>Carried to collection</b></p>		R	
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**C7.1 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

**C7.2 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

**C7.3 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

**C7.4 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: \_\_\_\_\_

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**C7.5 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

**109 C8.0 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 / lump sum document**

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

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110	<p><b>C9.1 NOTIFICATION OF CONSTRUCTION WORK (Construction Regulation 3)</b></p> <p>The Contractor shall, before commencing work, notify the Department of Labour of the intended construction work in terms of Regulation 3. The Contractor shall submit the notification in writing, on the appropriate form, prior to commencement of work</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
111	<p><b>C9.2 HEALTH AND SAFETY PLAN (Construction Regulation 5.4)</b></p> <p>The Contractor shall provide and demonstrate to the Principal Agent a suitable and sufficiently documented health and safety plan based on the Act, Construction Regulations and the health and safety specification, which shall be applied from the date of commencement of and for the duration of the construction work. The Contractor shall ensure that a copy of the health and safety plan is available on request to an employee, inspector, sub contractor or principal agent all in terms of Regulation 5</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
112	<p><b>C9.3 REGISTRATION WITH THE COMPENSATION FUND (Construction Regulation 5.3 f)</b></p> <p>The Contractor shall provide proof of his registration and good standing with the Compensation Fund or a licensed compensation insurer prior to the commencement of work</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item		
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113	<p><b>C9.4 HEALTH AND SAFETY FILE ( Construction Regulation 5.7)</b></p> <p>The Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the health and safety specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Principal Agent or Inspector upon request. Upon completion of the works, the Contractor shall hand over a consolidated health and safety file to the principal agent</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
114	<p><b>C9.5 SUPERVISION OF CONSTRUCTION WORK (SAFETY OFFICER) (Construction Regulation 6)</b></p> <p>The Contractor shall appoint a full-time competent employee in writing as the construction supervisor, with the duty of supervising the construction work.</p> <p>The Contractor shall appoint a full-time or part-time construction safety officer in writing to assist in the control of all safety related aspects on the site. Such appointments are required to ensure that at all times the requirements of the Act and Construction Regulations are adhered to. Refer to Regulation 6</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
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115	<p><b>C9.6 RISK ASSESSMENT AND SAFETY POLICY (Construction Regulation 7)</b></p> <p>Before commencing work the Contractor shall cause a risk assessment to be performed by a competent person appointed in writing and the risk assessment shall form part of the health and safety plan. A copy of the risk assessment shall be available on site at all times for inspection.</p> <p>The Contractor shall at all time carry out the works in a manner to avoid the risk of bodily harm to persons or risk of damage to any property. He shall take all precautions regarding training of employees in any hazards and the related work procedures, health and safety induction training of employees, visitors or any other persons entering the site and provide personal protective equipment to all employees and visitors to site which are necessary and adequate to eliminate any conditions which contribute to the risk of injury to persons or damage to property in terms of Regulation 7</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
116	<p><b>C9.7 SIGNIFICANT HAZARD IDENTIFICATION RISK ASSESSMENT PREPARED BY THE DESIGN CONSULTANTS</b></p> <p>The contractor shall allow for additional financial provision, if any, to take the necessary precautions regarding the significant hazards and risks identified and assessed by the design consultants</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
117	<p><b>C9.8 ADDITIONAL FINANCIAL PROVISION</b></p> <p>The Contractor shall allow for additional financial provision, if any, to comply with the requirements of the Occupational Health and Safety Act (Act No 85 of 1993) and the Construction Regulations issued there under which have not been specifically elsewhere provided</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
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118	<p><b>C9.9 FALL PROTECTION PLAN (Construction Regulation 8)</b></p> <p>The contractor shall, before commencing any construction work submit a fall protection plan identified all steps to be taken in order to ensure the continued adherence to the fall protection plan and shall include a risk assessment of all work carried out from an relevant position. The fall protection plan shall form part of the health and safety plan and file</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
119	<p><b>C9.10 PHYSICAL AND PSYCHOLOGICAL FITNESS (Construction Regulation 8.2(b))</b></p> <p>The contractor and sub-contractors shall before commencing any construction work submit proof of his employees that shall carried out work from an elevated position their physical and psychological fitness. And shall be recorded in the health and safety file</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
120	<p><b>C9.11 CONSTRUCTION VEHICLES AND MOBILE PLANT (Construction Regulation 21)</b></p> <p>The contractor and sub-contractors shall ensure that all operated workers received training and been certified competent to operate such vehicle, and are physical and psychological fit to operate such construction vehicles and mobile plants. And shall be recorded in the health and safety file</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
121	<p><b>C9.12 TRAINING (Construction Regulation 8 (c))</b></p> <p>The contractor and sub-contractors shall, before commencing any construction work, submit his training program of all his employees. This program shall from part of the health and safety plan</p> <p>Fixed:_____ Value related:_____</p> <p>Time related:_____</p>	Item		
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122	<p><b>C9.13 DEMOLITION WORK (Construction Regulation 12)</b></p> <p>The contractor shall, before any demolition work shall carried out, submit all method of demolition to be used. This method shall form part of the health and safety plan and file.</p> <p>Fixed: _____ Value related: _____ Time related: _____</p>	Item	
123	<p><b>C9.14 REMOVAL AND DISPOSAL OF ASBESTOS MATERIAL (Asbestos Regulation)</b></p> <p>The principle contractor shall appoint a contractor that is registered with the Department of Labour as an AIA. The contractor must allow for;  <b>NOTIFICATION OF ASBESTOS PROCESSING  PERSONAL PROTECTIVE EQUIPMENT  PACKAGING AND TRANSPORT AND STORAGE TO  DISPOSAL SITE  DEMOLITION WORK OF SHEETS  LABELLING AND INFORMATION</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p><b><u>SUMMARY OF CATEGORIES</u></b></p> <p>Category : Fixed      R.....</p> <p>Category : Value      R.....</p> <p>Category : Time      R.....</p>	Item	
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## **ABBREVIATIONS**

C.M. Shall mean cubic metre  
 S.M. Shall mean square metre  
 L.M. Shall mean linear metre  
 MM Shall mean Millimetre  
 Kg. Shall mean Kilogramme  
 No. Shall mean Number  
 Prs. Shall mean Pairs  
 LI Shall mean Labour Intensive  
 S.S.M Shall mean the Standard System of Measuring Building works  
 Ditto -Shall mean the whole of the preceding description except as qualified in the description in which it occurs.

m.s - Shall mean measured separately.  
 Provisional sum-shall mean a cost to cater for all the described item(s)

**EMPLOYER : Department of Education: North West**

**2nd Floor  
 Garona Building  
 Mmabatho  
 2735**

**PRINCIPAL AGENT:**

**Tiki Architects**

**P. O Box 4922  
 Mmabatho  
 Tel: 018 381 7895  
 Email: info@tikiarchitects.co.za**

## **CONTRACTING AND OTHER PARTIES**

**Employer: Department of Education: North West**

**2nd Floor  
 Garona Building  
 Mmabatho  
 2735**

**Carried to collection**

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**PRELIMINARIES**  
 Moedwil Combined School Phase Two

R

Principal Agent: **Tiki Architects**

**P. O Box 4922  
Mmabatho  
Tel: 018 381 7895  
Email: info@tikiarchitects.co.za**

Agent (1): Architect

**Tiki Architects**

**P. O Box 4922  
Mmabatho  
Tel: 018 381 7895  
Email: info@tikiarchitects.co.za**

Agent (2): Quantity Surveyor

**GT Chaane Quantity Surveyors and Project  
Managers CC**

**51 Tillard Street  
Golf View  
Mahikeng  
2745**

Agent (3): Civil Engineers

**Maru A Pula Engineers**

**14 Tillard Street  
Mafikeng  
2745  
South Africa**

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Agent (4):Electrical Engineer

**HDM Engineering**

**Unit 6**

**Golf Garden Office Park**

**1 Marco Polo Street**

Agent (5): Structural Engineer

**Maru A Pula Engineers**

**14 Tillard Street**

**Mafikeng**

**2745**

**South Africa**

Agent (6): Occupational Health and Safety

**Mamantathi Training and Projects (Pty) Ltd**

**Unit 114 Lifestyle Estate**

**Bougainville Road**

**Montana Park**

**0182**

**CONTRACT DETAILS**

Works description:

**The construction of Moedwil Combined School  
Phase Two as per contract data**

Site description:

**The site is located on 6 Potgieter Street, Rietfontein  
Plaas, Rustenburg, 0300, North West Province,  
South Africa**

**Carried to collection**

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Bill No. 1

PRELIMINARIES

Moedwil Combined School Phase Two

**Work or installations by direct contractors**

Refer to Contract Data

Possession of the **site** is intended to be given on:

**As per contract data**

Period for the commencement of the Works after the Contractor takes possession of the site

**18 months (To be calculated in calendar days)**

For the works as a whole:

The date for practical completion and the liquid damages per calendar day.

The work programme and cash-flow to be submitted within seven calendar days after site possession and will form part of the deliverable milestones. Failure to meet these shall be deemed to be in breach of contract. Should the contractor fail to submit both within this period, the Project manager shall impose both and the contractor shall have seven working days to counter such with an acceptable programme and cash-flows. Acceptability shall be solely decided by the Project manager

**Date for practical completion:**

**18 months (To be calculated in calendar days)**

from site possession

**Penalties per calendar day:**

Forty-two thousand Rands (**R 42 000**)

For the works in sections:

**Not applicable.**

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PRELIMINARIES  
Moedwil Combined School Phase Two

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<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 1</u></b>			
<b><u>DEMOLITIONS AND ALTERATIONS</u></b>			
<b><u>(PROVISIONAL)</u></b>			
<b><u>PREAMBLES</u></b>			
For preambles see "Model Preambles for Trades"			
<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 102 for JBCC CPAP purposes</i>			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>View site</u>			
Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials salvageable from the alterations. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained			
<u>Explosives</u>			
No explosives whatsoever may be used for alteration purposes unless otherwise stated			
<u>General</u>			
The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. 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			
<b>Carried to collection</b>			R
Bill No. 1 ALTERATIONS AND DEMOLITIONS (PROVISIONAL) Moedwil Combined School Phase Two			

Doors, fanlights, windows, fittings, frames, linings, etc., which are to remain the property of the employer shall be carefully taken out, temporarily stored, transported over a distance of approximately 5km to store and handed over to the employer.

Doors, fanlights, windows, 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 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

Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc

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 EXISTING WORK**

### **TEMPORARY BARRIERS, SCREENS, ETC**

**Carried to collection**

R

Bill No. 1  
ALTERATIONS AND DEMOLITIONS (PROVISIONAL)  
Moedwil Combined School Phase Two

<b><u>Temporary hoarding fence around building to be constructed including erection and dismantling at contract completion</u></b>					
1	Dust screen 2,85m high between concrete floor and ceiling formed of suitable timber framing with 375 micron polyethylene sheeting stapled on, including corners, ends, etc	m	508		
2	2400mm high diamond mesh with and including shade cloth covering the sides, including all the corners, straining and support posts, droppers, straining wire, earthworks and necessary concrete bases, etc.	m	508		
3	2400mm High x 5000mm wide diamond mesh clad vehicle gate, with frame, straining wire bolts and lock sets, earthworks and necessary concrete bases, executed complete.	No	2		
<b><u>REMOVAL OF EXISTING WORK</u></b>					
<b><u>Breaking up and removing reinforced concrete including cutting off and removing reinforcement</u></b>					
4	Mass concrete	m <sup>3</sup>	388		
<b><u>Breaking down and removing brickwork, etc.</u></b>					
5	Mass brickwork	m <sup>3</sup>	29		
6	Half brick walls	m <sup>2</sup>	12		
7	One brick walls	m <sup>2</sup>	20		
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	<b><u>BILL NO. 2</u></b>			
	<b><u>EARTHWORKS (PROVISIONAL)</u></b>			
	For preambles see "Model Preambles for Trades"			
	<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</i>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Nature of ground</u></b>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock".			
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock".			
	The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, therefore "earth", but possibly interspersed with "hard rock".			
	Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth". The trial holes also indicate that the water table is at a maximum depth of approximately 1000mm.			
	A soils investigation has been carried out on site by the engineer and the report is available at the offices of the civil engineers. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured			
	<b>Carried to collection</b>			R
	Bill No. 2 EARTHWORKS (PROVISIONAL) Moedwil Combined School Phase Two			

**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.

**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 multiple handling of material.

**SITE CLEARANCE**

**Site clearance**

- |   |   |                |        |
|---|---|----------------|--------|
| 8 | Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc. | m <sup>2</sup> | 29,277 |
| 9 | Stripping average 150mm thick layer topsoil plus 200mm in-situ material and stockpile on site.                      | m <sup>2</sup> | 29,277 |

**REMOVAL OF TREES**

**Taking out and removing, grubbing up roots and filling in holes**

- |    |  |    |    |
|----|--|----|----|
| 10 | Tree stump exceeding 200mm and not exceeding 500mm girth   | No | 10 |
| 11 | Tree stump exceeding 500mm and not exceeding 1000mm girth  | No | 8  |
| 12 | Tree stump exceeding 1000mm and not exceeding 1500mm girth | No | 5  |
| 13 | Tree stump exceeding 1500mm and not exceeding 2000mm girth | No | 2  |

**EXCAVATION, FILLING, ETC.**

**Carried to collection**

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Bill No. 2  
EARTHWORKS (PROVISIONAL)  
Moedwil Combined School Phase Two

<b><u>Excavation in earth not exceeding 2m deep</u></b>					
14	Trenches	m <sup>3</sup>	1,374		
<b><u>Extra over trench excavation in earth for excavation in</u></b>					
15	Soft rock	m <sup>3</sup>	147		
16	Hard rock	m <sup>3</sup>	74		
<b><u>Extra over all excavations for carting away</u></b>					
17	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	1,585		
<b><u>Risk of collapse of excavations</u></b>					
18	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	14,597		
<b><u>Keeping excavations free of water</u></b>					
19	Keeping excavations free of all water other than subterranean water		Item		
<b><u>FILLING, ETC.</u></b>					
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u></b>					
20	Backfilling to trenches, holes, etc.	m <sup>3</sup>	376		
<b><u>Earth filling G7 (MinCBR at 93% Mod AASHTO = 25; Max PI = 10) supplied by the contractor compacted to 93% Mod AASHTO density</u></b>					
21	Under floors, steps, pavings, etc.	m <sup>3</sup>	1,795		
<b><u>Compaction of surfaces</u></b>					
22	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m <sup>2</sup>	11,309		
<b>Carried to collection</b>				R	
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Bill No. 2

EARTHWORKS (PROVISIONAL)

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	<b><u>BILL NO. 3</u></b>			
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>			
	For preambles see "Model Preambles for Trades"			
	<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</i>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Cost of tests</u></b>			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)			
	Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
	<b><u>"Foamcement " lightweight concrete</u></b>			
	"Foamcement" lightweight concrete is to have a density of 600kg/m <sup>3</sup> for the top 50mm and 400kg/m <sup>3</sup> for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 50mm			
	<b>Carried to collection</b>			R
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**"Celbeton" lightweight concrete**

"Celbeton" lightweight concrete is to have a density of 1000kg/m<sup>3</sup> for the top 20mm and 480kg/m<sup>3</sup> for the remaining thickness. The minimum thickness at outlets, channels, etc shall be 30mm

**Formwork**

Description 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.

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

Slabs and beams to remain propped for periods strictly in accordance with SABS 1200 G Clause 5.2.5

Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

**Carried to collection**

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CONCRETE, FORMWORK AND REINFORCEMENT  
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**SOILCRETE (PROVISIONAL)**

Soilcrete shall consist of hillwash mixed with 6% ordinary Portland cement with a minimum strength of 1,5MPa. The hillwash may not contain fragments larger than 100mm and the silt and clay fraction shall be less than 20%. The engineer shall decide on site which hillwash may be used in the soilcrete.

The hillwash and Portland cement shall be mixed on site using suitable concrete mixers. Only sufficient water shall be added to give a consistency that will permit the placing of the soilcrete using vibrators.

**Soilcrete**

26	Backfilling below bases	m³	172		
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**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)**

**10MPa/19mm concrete**

27	Surface blinding under footings and bases	m³	86		
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**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)**

**25MPa/20mm concrete**

28	Strip footings	m³	357		
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**30MPa/19mm concrete**

29	Raft foundation slabs cast in panels on waterproofing	m³	1,328		
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30	Raft foundation beams	m³	716		
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**REINFORCED CONCRETE**

**30MPa/12mm concrete**

31	Ring Beam	m³	2		
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**Carried to collection**

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# **UNREINFORCED CONCRETE**

## **20MPa/19mm reinforced concrete**

32	Rainwater aprons	m³	187
33	Rainwater disposal channels	m³	5
34	Ramps	m³	10

## **TEST CUBES (PROVISIONAL)**

35	Allow for making set of three 150 x 150 x 150mm test cubes.	Sets	409
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## **CONCRETE SUNDRIES**

### **Finishing top surfaces of concrete with a coarse hard grass broom**

36	Aprons laid to falls	m²	3,838
37	Rainwater disposal	m²	35

### **Finishing top surfaces of concrete smooth with a wood float**

38	Surface beds, slabs, etc	m²	10,377
39	Ramps, ramp slabs, etc. to falls	m²	121

## **FORMWORK**

**NOTE:** Work Group No 111 for JBCC CPAP purposes

## **ROUGH FORMWORK (DEGREE OF ACCURACY II)**

### **Rough formwork to sides**

40	Strip footings (Provisional)	m²	3,544
41	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	5,855

**Carried to collection**

R

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CONCRETE, FORMWORK AND REINFORCEMENT  
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42	Foundation beams (Provisional)	m <sup>2</sup>	11,054		
43	Beams	m <sup>2</sup>	21		
<b><u>MOVEMENT JOINTS ETC</u></b>					
<b><u>Expansion joints with bitumen-impregnated softboard between vertical concrete and brick surfaces</u></b>					
44	10mm Joints not exceeding 300mm high or wide	m	6,332		
<b><u>Saw cut joints</u></b>					
45	6mm Saw cut joints in top of concrete	m	749		
<b><u>REINFORCEMENT (PROVISIONAL)</u></b>					
<b><u>NOTE: Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</u></b>					
<b><u>Mild steel reinforcement to structural concrete work</u></b>					
46	8mm Diameter bars	t	13.39		
47	20mm Diameter bars	t	13.39		
<b><u>High tensile steel reinforcement to structural concrete work</u></b>					
48	8mm Diameter bars	t	20.09		
49	10mm Diameter bars	t	20.09		
50	12mm Diameter bars	t	20.09		
51	16mm Diameter bars	t	20.09		
52	20mm Diameter bars	t	13.39		
53	25mm Diameter bars	t	6.70		
54	32mm Diameter bars	t	6.70		
<b>Carried to collection</b>				R	
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### Fabric reinforcement

55	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m <sup>2</sup>	1,791
56	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m <sup>2</sup>	8,977

**Carried to collection**

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Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 4</u></b>			
	<b><u>MASONRY</u></b>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>NOTE:</u></b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 118 for JBCC CPAP purposes			
	<b><u>BRICKWORK</u></b>			
	<b><u>Sizes in descriptions</u></b>			
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick			
	<b><u>Hollow walls etc</u></b>			
	Descriptions of hollow walls shall be deemed to include wall ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole			
	<b><u>Reinforced brick lintels</u></b>			
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous			
	<b><u>Face bricks</u></b>			
	Bricks shall be ordered timeously to obtain uniformity in size and colour			
	<b>Carried to collection</b>			R
	Bill No. 4 MASONRY Moedwil Combined School Phase Two			

**Pointing**

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

**BLOCKWORK**

**Concrete masonry units**

Blocks shall be either solid or hollow modular dense concrete masonry units in accordance with SABS Specification 1215, having compressive strengths as described

**Wall ties for blockwork**

SPEC FOR WALL TIES

**Blockwork**

Blockwork shall comply with SABS 0145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to a depth of at least 10mm to provide a key. Cavities of hollow walls shall be kept free of mortar droppings or other undesirable matter. Every second perpend of the bottom course of the external skin of hollow walls shall be left open as a weep hole

**Standard complementary blocks**

Descriptions of blockwork shall be deemed to include standard complementary blocks such as corner, three-quarter, half and quarter blocks required in the construction of corners, reveals, jambs, ends, etc to solid and hollow walls and for bonding as necessary

**DECORATIVE BLOCKS**

Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour

**"WINBLOK" MODULAR PRECAST CONCRETE WINDOW SURROUNDS**

Carried to collection

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**General**

Window surrounds shall be built into brick walls and pointed all round on both sides with 10 x 10mm square recessed joints

Prices shall include for building in as single units or combinations in patterns of two or more window units and for bedding solid all round in mortar and pointing

**Note**

Aluminium infill windows, glazing and pointing with sealing compound are measured elsewhere

**SAMPLES**

Samples of all masonry building units, shall consist of a minimum of 6 units

**PAVINGS**

**Quarry tiles, precast concrete, cement, terrazzo and similar tiles**

Tiles shall be of approved manufacture, well burnt or cured, and uniform and true in size, shape and colour

**Preparation of concrete floor beds, slabs, etc for pavings**

Concrete surfaces shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. Surfaces shall then be wetted and kept damp for at least six hours before slushing with 1:2 cement/sand and while still wet, pavings, etc. shall be laid on a 1:4 cement mortar bed not exceeding 25mm thick. Sand shall be clean, sharp river sand

**Jointing of pavings**

Pavings, etc, shall, except for crazy paving, be laid with continuous joints in both directions

**STONEWORK**

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**Slate, marble, granite, etc**

Slate, marble, granite, etc is to be best quality stone from an approved quarry, free from cracks and other defects and equal to samples to be submitted to and approved by the architect. Each stone is to hold its full size, square to the back and to be set on its natural quarry bed

**Setting out**

Care shall be exercised in setting out the work, the preparation of templates and the checking of the detail drawings. All measurements shall be taken on the site where necessary and the full size setting out of each course shall be done at the yard so as to ensure the proper fitting of each stone

Before putting any work in hand the contractor is to submit to the architect for his approval details of the manner in which he proposes to set out the slabs and joints in all wall facings, pavings, sills, treads, etc together with samples of grain or pattern matching

**Face labours**

Face labours are to match samples to be submitted to and approved by the architect. Arrises are to be clean and sharp except to treads and thresholds where they are to be slightly rounded

**Bedding and jointing**

Slate, marble, granite and other floor paving and wall linings are to be bedded solidly on the mortar thicknesses described and are to have tightly fitting butt joints unless otherwise stated. Where stonework is to be fixed with adhesive, the adhesive is to be "TAL Goldstar/Bond" (mixed 20kg/5 litre) for external use or where white or light coloured marble is used, "TAL Goldstar" for internal use or other approved. The contractor will be liable for any defects to the slate, marble and granite arising from the use of the adhesive

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Where soffit linings are suspended the suspension system must be concealed and must be submitted to the architect for approval before work commences Where tolerance screws are required these are to be stainless steel expanding bolt type with matching stainless steel bracket and PVC clad dowel with nuts and washers etc

#### **Damaged work**

Any damaged stonework shall be discarded and replaced at the contractor's expense. No touching up will be permitted except in exceptional cases, with the architect's consent

#### **Descriptions**

Descriptions of stonework shall be deemed to include preparatory work, labours to backs, beds and joints, templates, mortices for bolts etc and for hoisting and setting in position, bedding, jointing and pointing, casing and protecting from injury and cleaning down at completion Descriptions of recessed pointing to stonework shall be deemed to be square recessed, hollow recessed, weathered pointing, etc

#### **FOUNDATIONS (PROVISIONAL)**

##### **Brickwork of NFPE bricks (17 MPa nominal compressive strength) in class I mortar in loadbearing walls, etc.**

57	460 x 460 x 700mm High brick columns of one brick wall composition including 230 x 230mm cavity in-between	No	80
58	One brick walls	m <sup>2</sup>	2,206

#### **FACE BRICKWORK (PROVISIONAL)**

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	<u>Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.</u>				
59	Extra over brickwork for face brickwork on foundations (Provisional)	m <sup>2</sup>	2,193		
	<b><u>BRICKWORK SUNDRIES (PROVISIONAL)</u></b>				
	<b><u>Brickwork reinforcement</u></b>				
60	75mm Wide reinforcement built in horizontally	m	12		
61	150mm Wide reinforcement built in horizontally	m	8,639		
	<b><u>SUPERSTRUCTURE</u></b>				
	<b><u>Brickwork of NFX bricks in class II mortar</u></b>				
62	Piers	m <sup>3</sup>	52		
63	Half brick walls	m <sup>2</sup>	4,280		
64	Half brick walls in beamfilling	m <sup>2</sup>	389		
65	One brick walls	m <sup>2</sup>	10,546		
66	Two one brick walls	m <sup>2</sup>	148		
67	Perforated one brick walls	m <sup>2</sup>	328		
68	One Brick gable walls	m <sup>2</sup>	799		
69	One brick walls in beamfilling	m <sup>2</sup>	832		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<b><u>Miscellaneous</u></b>				
70	Fill top of pressed steel door frame not exceeding 300mm girth with cement mortar and trowel smooth	m	278		
	<b>Carried to collection</b>			R	
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71	150 x 150mm Weep holes to brickwork	No	32
<b><u>Joint forming material in movement joints</u></b>			
72	12mm Bitumen impregnated fibreboard built in vertically between brick skins	m <sup>2</sup>	416
<b><u>2.8mm diameter galvanised brickwork reinforcement</u></b>			
73	75mm Wide reinforcement built in horizontally	m	25,111
74	150mm Wide reinforcement built in horizontally	m	62,649
75	230mm Wide reinforcement built in horizontally	m	755
<b><u>Concrete prestressed fabricated lintels</u></b>			
76	110 x 70mm Lintels in lengths not exceeding 3m	m	2,391
<b><u>Turning pieces</u></b>			
77	230mm Wide turning piece to lintels etc	m	827
<b><u>Galvanised hoop iron cramps, ties, etc.</u></b>			
78	30 x 1.2mm Wall tie 300mm girth, twice bent to detail with one end twice shot pinned to concrete and other end built into brickwork lining.	No	5,308
79	30 x 1.2mm Wall tie 800mm long with one end twice shot pinned through joint filler to concrete and other end built into brickwork in foundations.	No	768
80	30 x 1.6mm Roof tie 1.5m long with one end fixed to timber and other end built into brickwork.	No	3,146
<b><u>Air bricks etc</u></b>			
81	Set of two 215 x 140 x 50mm Vernon proof Terracotta Air brick with louvred holes.	No	66

**FACE BRICKWORK**

Carried to collection

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**Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.**

82	Extra over brickwork for face brickwork	m <sup>2</sup>	7,273
83	Extra over brickwork for breeze wall face brickwork	m <sup>2</sup>	360
84	Extra over brickwork for face brickwork in beamfilling	m <sup>2</sup>	832
85	Extra over brick columns for face brickwork	m <sup>2</sup>	52
86	Extra over brickwork for brick-on-edge header course lintel	m	734
87	Fair cutting and fitting around pipe not exceeding 50mm diameter	No	446
88	Fair cutting and fitting around pipe exceeding 50mm and not exceeding 100mm diameter	No	150

**Brick-on-edge header course copings, sills, etc. of Face bricks (PC Amount R7000/1000) pointed with recessed joints on all exposed faces**

89	Brick-on-edge coping to one brick wall.	m	869
90	230mm wide brick-on-edge bull-nose	m	1,057
91	230mm wide brick-on-edge bull-nose sills set sloping and slightly projecting	m	827
92	Extra over ordinary brickwork for brick-on-edge lintel pointed on both sides and 220mm wide soffit.	m	1,057

### **FIBRE-CEMENT WINDOW SILLS**

**Pressed fibre sills in single lengths bedded in mortar including metal fixing lugs, etc.**

93	10 x 110mm Wide sills set sloping and slightly projecting	m	827
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Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>WATERPROOFING</u></b>			
	For preambles see "Model Preambles for Trades"			
	<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 120 for JBCC CPAP purposes</i>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	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			
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer of 375 micron black embossed polyethylene damp-proof course (SANS 952-1985 Type B) (Provisional)</u></b>			
94	In walls	m <sup>2</sup>	2,888	
	<b><u>One layer of 250 micron thick gunplus usb green damp-proof membrane (SANS 952-1985 Type C) sealed at laps with PVC self-adhesive tape</u></b>			
95	Under surface beds	m <sup>2</sup>	28,552	
	<b><u>Shower waterproofing kit</u></b>			
96	On shower floors including turn-ups	m <sup>2</sup>	485	
	<b><u>JOINT SEALANTS, ETC.</u></b>			
	<b>Carried to collection</b>			R
	Bill No. 5 WATERPROOFING Moedwil Combined School Phase Two			

**Miscellaneous sealing compounds**

97	Polysulphide sealing compound including primer and raking out filler board as necessary	m	206
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**Clear silicone sealant (Provisional)**

98	Between wall finish and sanitary fittings	m	217
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WATERPROOFING  
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WATERPROOFING

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<b><u>SECTION NO. 2</u></b>				
<b><u>BILL NO. 6</u></b>				
<b><u>ROOF COVERINGS, ETC.</u></b>				
For preambles see "Model Preambles for Trades"				
<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 125 for JBCC CPAP purposes</i>				
<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
Descriptions of all roof coverings are deemed to include for all straight cutting				
<b><u>EMBOSSSED PROFILED ROOFING</u></b>				
<b><u>0,6mm Thick IBR roof sheeting with pre-painted finish and accessories fixed to timber purlins or rails in strict accordance with manufacturer's specifications.</u></b>				
99	Roof coverings with pitches not exceeding 25 degrees	m <sup>2</sup>	9,854	
100	Standard 0.6mm thick metal ridge cappings with ridge closer.	m	808	
101	Hip capping 550mm girth	m	23	
102	Gable trim 550mm girth	m	955	
103	Narrow and broad flute closers 550mm girth	m	1,531	
<b><u>ROOF VENTILATORS, GABLE ROOF END, ETC.</u></b>				
104	Purpose-made pre-painted triangular gable roof end approximately 4000mm deep and 1000mm high extreme	No	8	
<b><u>ROOF AND WALL INSULATION</u></b>				
Carried to collection				R
Bill No. 6 ROOF COVERINGS Moedwil Combined School Phase Two				

105	<p><b><u>Lightweight industrial grade reinforced aluminium foil based insulation</u></b></p> <p>50mm Non-combustible light weight industrial fibre glass Insulation material, with reinforced aluminium foil faced finish laid taut over purlins and fixed concurrent with roof covering, with galvanized steel straining wires at 300mm centres and tied down top and bottom after tensioning with galvanized hoop iron ties.</p>	m²	9,854	
	<p><b>Carried to collection</b></p>			R

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 ROOF COVERINGS  
 Moedwil Combined School Phase Two

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ROOF COVERINGS

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	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 7</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>NOTE:</u></b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 126 for JBCC CPAP purposes			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b>Plate nailed timber roof truss construction</b>			
	The following is applicable in respect of roof trusses:			
	a) Trusses are at maximum 1,20m centres. Roof covering is 0,6mm IBR profile sheeting on 50 x 75mm purlins. Ceilings are 6,4mm skimmed gypsum plasterboard sheeting on 38 x 38mm brandering. The references given in the descriptions refer to the respective types of trusses detailed on the architect's drawing numbered H100/015 accompanying these bills of quantities. The dimensions in the descriptions of the trusses are nominal and actual measurements shall be obtained from the architect and/or the site before design or fabrication commences			
	b) All roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take corrugated roof covering, purlins and fibre cement or gypsum plasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spiked connectors, fixed on both sides of each intersection by an approved method, all in accordance with manufacturer's instructions.			
	c) Unless otherwise described all rafter feet are to extend 500mm beyond the length of the tie beam on one side, and 610mm on the other side.			
	<b>Carried to collection</b>		R	
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d) The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered engineer in accordance with SABS 0243 and it shall be required from the manufacturer of the truss to lodge a written guarantee that his construction has been designed by a qualified structural engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative Agent.

e) The tenderer's attention is drawn to the fact that the detail drawings represent only the overall size and bearing points of the trusses and not the required design.

f) Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa and the National Timber Research Institute.

g) Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, etc. and for temporary bracing

#### **Joinery**

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

Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

#### **Fixing**

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete

#### **Decorative laminate finish**

Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish

#### **ROOF CONSTRUCTION:**

**Carried to collection**

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Bill No. 7  
CARPENTRY AND JOINERY  
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<u>Plate nailed timber roof truss construction</u>					
106	Roof construction to multi-pitched roof with no gable ends, 3475mm x 2700mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(GUARD HOUSE)</b>	No	3		
107	Roof construction to double pitched roof with two gable ends, 28820mm x 14831mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(HOSTEL TYPE 2A)</b>	No	10		
108	Roof construction to double pitched roof with two gable ends, 20800mm x 14982mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(HOSTEL TYPE 1A)</b>	No	8		
109	Roof construction to double pitched roof with two gable ends, 14647mm x 14370mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(TV ROOM)</b>	No	4		
<b>Carried to collection</b>				R	
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

110	Roof construction to double pitched roof with two gable ends, 13740mm x 9000mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(HOSTEL MASTER)</b>	No	2		
111	Roof construction to double pitched roof with two gable ends, 24250mm x 15000mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(HOSTEL ADMIN)</b>	No	1		
112	Roof construction to double pitched roof with two gable ends, 24110mm x 9530mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(STAFF HOUSES)</b>	No	4		
<b><u>SUNDRY ROOF TIMBERS:</u></b>					
<b><u>Sawn softwood (Grade 4):</u></b>					
113	38 x 114mm Wall plate.	m	2,422		
114	38 x 228mm Cat walk.	m	808		
115	38 x 114mm Geyser platform.	m	31		
116	38 x 228mm Gang boarding	m	1,564		
117	50 x 76mm Purlin SA pine purlins spaced as shown at maximum 1200mm centres.	m	11,778		
118	76 x 76mm Splayed purlins.	m	2,199		
<b>Carried to collection</b>				R	
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119	"Hurricane clip" between truss and purlins.	No	18,360		
	<b><u>Wood Preservative:</u></b>				
120	Two coats creosote on sawn and wrought timbers.	m²	1,293		
	<b><u>ROOF SUNDRIES:</u></b>				
	<b><u>Wrought Softwood (Grade 4):</u></b>				
121	50 x 76mm Barge board support.	m	621		
	<b><u>EAVES, VERGES, ETC</u></b>				
	<b><u>Pressed fibre cement</u></b>				
122	10 x 225mm Fascia and barge board including galvanised steel H-profile jointing strips screwed to rafter ends and 114 x 38mm SA pine cleats	m	2,753		
	<b><u>SKIRTINGS</u></b>				
	<b><u>Wrought meranti</u></b>				
123	19 x 76mm Skirting nailed to walls with heads of nails punched and filled including 19mm quadrant bead planted on at junction with floor.	m	6,062		
	<b><u>DOORS</u></b>				
	<b><u>Guard House</u></b>				
	<b><u>Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)</u></b>				
124	40 x 813x 2032mm Door (DGH01)	No	3		
Carried to collection				R	
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

	<u>Solid flush door with hardwood concealed edge and 3mm thick masonite panels to both sides suitable</u>				
125	40 x 813x 2032mm Door (DGH02)	No	3		
	<u>Type 2A Hostel</u>				
	<u>Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)</u>				
126	40 x 1200 x 2032mm Door (D2AH01)  <u>Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames</u>	No	10		
127	40 x 813 x 2032mm Door (D2AH04)	No	34		
128	40 x 813 x 2032mm Door (D2AH02)	No	142		
129	40 x 900 x 2032mm Door (D2AH03)	No	20		
				R	
	<b>Carried to collection</b>				
	Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two				

	<u>Semi solid flush door with concealed hardwood edges faced both sides hung to steel frames</u>				
130	40 x 1600 x 2032mm Door (D2AH06)	No	10		
	<u>Fire doors:</u>				
131	44 x 813 x 2032mm Door (D2AH04)	No	18		
132	Class B fire door size 1200 x 2032mm high in accordance with SABS 1253 including pressed steel door frame to suit one brick wall complete with hoop iron anchors welded to frame, one adjustable stainless steel striking plate suitable for mortice lock, three rubber shock absorbers in rebate and one and a half pairs of 100mm heavy duty flanged hinges including preparing frame for door closer.(D2AH05)	No	20		
	<u>Type 1A Hostel</u>				
	<u>Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)</u>				
133	44 x 813x 2032mm Door (D01)	No	24		
	<u>Solid flush door with hardwood concealed edge and 3mm thick masonite panels to both sides suitable</u>				
134	44 x 813x 2032mm Door (D02)	No	128		
	<b>Carried to collection</b>			R	
	Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two				

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	<u>Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)</u>				
139	44 x 1200 x 2032mm Door (D01)	No	8		
140	44 x 813x 2032mm Door (D02)	No	16		
	<u>44mm Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames</u>				
141	44 x 813x 2032mm Door (D02)	No	4		
142	44 x 813x 2032mm Door (D03)	No	8		
	<u>Hostel Master</u>				
	<u>Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)</u>				
143	44 x 813x 2032mm Door (DHM01)	No	2		
	Carried to collection			R	
	Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two				

	<u>44mm Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames</u>				
144	44 x 813x 2032mm Door (DHM02)	No	2		
145	44 x 813x 2032mm Door (DHM03)	No	10		
146	44 x 813x 2032mm Door (DHM04)	No	4		
	<u>Class B fire door size 813 x 2032mm high in accordance with SABS 1253 including pressed steel door frame to suit one brick wall complete with hoop iron anchors welded to frame, one adjustable stainless steel striking plate suitable for mortice lock, three rubber shock absorbers in rebate and one and a half pairs of 100mm heavy duty flanged hinges including preparing frame for door closer.</u>				
147	44 x 813x 2032mm Door (DHM05)	No	2		
	<u>Hostel Administration</u>				
	<u>Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)</u>				
148	44 x 813x 2032mm Door (D05)	No	1		
149	44 x 1600x 2032mm Door (D01)	No	1		
	Carried to collection			R	
	Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two				

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### General

The following cupboard fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, glueing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic finish, glass, ironmongery, metalwork, paint or varnish finishes, etc

### Hostel Administration

### Computer & Waiting Area

155	30mm Thick Rustenburg black granite or similar approved worktop 600mm wide per architects drawing no.MCS-PHS-2AH1-602 sheet no.1	m	14
156	Drawer unit size 200 x 470mm high drawer unit with 16mm thick supawood with postformed vertical edges, both faces laminated, top, bottom of door edges in 2mm thick PVC edging with an aluminium leg support as per architect's drawing <b>no.MCS-PHS-1AH1-602 sheet no.1 and no.2</b>	No	22
157	50mm thick dividing board	m	44

### Cupboard shelving

158	400mm wide x 16mm thick mdf supawood partition and shelving fixed to 50mm x 20mm mdf supawood cleats all with approved veneer to Architect	m	7
159	550mm wide x 16mm thick mdf supawood partition and shelving fixed to 50mm x 20mm mdf supawood cleats all with approved veneer to Architect	m	2

### Type 2A Hostel

### Kitchen cupboards, etc.

160	600 x 30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.3</b>	m	22
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Carried to collection

R

Bill No. 7  
CARPENTRY AND JOINERY  
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161	Drawer unit size 700mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.3</b>	No	10		
162	Corner floor cupboard on plan 600mm x 600mm x 900mm high with 16mm medium density fibreboard supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.3</b>	No	10		
163	Combination floor and sink cupboard 900mm x 600mm x 900mm high with 16mm medium density fibreboard supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, double hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.3</b>	No	10		
164	Wall mounted cupboard 1052mm x 300mm x 750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high ,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	14		
165	Wall mounted cupboard 1932mm x 300mm x 750mm high,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	10		
<b>Carried to collection</b>					R
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

<u>Type 1A Hostel</u>					
166	600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing <b>no.MCS-PHS-1AH1-602 sheet no.3</b>	m	29		
167	Combination floor and sink cupboard 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PHS-1AH1-602 sheet no.3</b>	No	12		
168	Drawer unit size 700mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing <b>no.MCS-PHS-1AH1-602 sheet no.3</b>	No	12		
169	Corner floor cupboard on plan 1900mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PHS-1AH1-602 sheet no.3</b>	No	12		
170	Wall mounted cupboard 1052mm x 300mm x 750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high ,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	16		
171	Wall mounted cupboard 1932mm x 300mm x 750mm high,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	16		
<b>Carried to collection</b>				R	
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

	<b><u>Staff House</u></b>				
172	600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	m	76		
173	Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	8		
174	Drawer unit size 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	24		
175	Corner floor cupboard on plan 2032mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	16		
176	Floor cupboard on plan 900mm x 600mm x 2250mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, double hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	8		
177	Floor cupboard on plan 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, three single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	8		
<b>Carried to collection</b>				R	
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

178	Wall mounted cupboard 1500mm x 300mm x 750mm high, 1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architects drawing no. <b>MCS-PH2-SH1-602 sheet no.1</b>	No	8		
179	Wall mounted cupboard 1300mm x 300mm x 750mm high, 1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architects drawing no. <b>MCS-PH2-SH1-602 sheet no.1</b>	No	8		
180	Wall mounted cupboard 1032mm x 300mm x 750mm high, 1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architects drawing no. <b>MCS-PH2-SH1-602 sheet no.1</b>	No	8		
181	Wall mounted corner cupboard 1500mm x 300mm x 750mm high, 1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. <b>MCS-PH2-SH1-602 sheet no.1</b>	No	8		
<b><u>Hostel Master</u></b>					
182	Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect's drawing no. <b>MCS-PHS-HM2-602 sheet no.1</b>	No	2		
<b>Carried to collection</b>				R	
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

183	Drawer unit size 468mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.2</b>	No	2		
184	600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.1</b>	m	9		
185	Floor cupboard on plan 732mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, double hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	2		
186	Corner floor cupboard on plan 900mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	4		
187	Wall mounted corner cupboard 1400mm x 300mm x 750mm high, 1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-HM2-602 sheet no.1</b>	No	4		
<b><u>Bedroom</u></b>					
<b><u>Type 2A Hostel</u></b>					
188	30mm Thick Rustenburg black granite or similar approved worktop 605mm wide, 815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.1</b>	m	422		
<b>Carried to collection</b>					R
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

189	Drawer unit size 200 x 720mm high drawer unit finished with 16mm thick supawood, postformed vertical edges, both faces laminated, top, bottom of door edges in 2mm thick PVC edging with two aluminium leg supports as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.1 and no.2</b>	No	440		
190	Light duty shelving system with adjustable clip-in shelves complete supplied by Mr.Shelf contact details (086 167 7435) as per architects drawing no.MCS-PHS-2AH1-602 sheet no.6	No	28		
<b><u>Type 1A Hostel</u></b>					
191	30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-1AH1-602 sheet no.1 and no.2</b>	m	66		
192	Drawer unit size 200 x 470mm high drawer unit with 16mm thick supawood with postformed vertical edges, both faces laminated, top, bottom of door edges in 2mm thick PVC edging with an aluminium leg support as per architect's drawing <b>no.MCS-PHS-1AH1-602 sheet no.1 and no.2</b>	No	68		
193	1300mm x 2100mm high standard mild steel cupboard door frame and double semi solid flush panel doors with 16mm thick mdf supawood top fixed to 40 x 20mm mdf supawood cleats,16mm thick mdf supawood partition and shelves fixed to 50 x 20mm mdf cleats all with approved veneer as per architect's drawing <b>no.MCS-PHS-1AH1-602 sheet no.1 and no.2</b>	No	56		
<b><u>Staff House</u></b>					
194	2200mm x 600mm x 2100mm high built in cupboard including timber framework plugged to walls and one side of the cupboard has 7 No. 600mm x 450mm shelving 2No. hinged doors size 446mm wide x 2100mm high, 2No. size 436mm x 2100mm high and 1No. size 437mm x 2100mm high with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PH2-SH1-602 sheet no.2</b>	No	16		
<b>Carried to collection</b>				R	
Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two					

195	3510mm x 600mm x 2100mm high built in cupboard including timber framework plugged to walls and one side of the cupboard has 7 No. 600mm x 450mm shelving 4No. hinged doors size 582mm wide x 2100mm high, 2No. size 592mm x 2100mm high and 1No. size 437mm x 2100mm high with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PH2-SH1-602 sheet no.2</b>	No	8		
	<b><u>Hostel Master</u></b>				
196	1690mm x 600mm x 2100mm high built in cupboard including four 450mm x 1690mm shelving with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.2</b>	No	2		
197	1800mm x 600mm x 2100mm high built in cupboard including 450mm shelving with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.2</b>	No	2		
198	1900mm x 600mm x 2100mm high built in cupboard including 450mm shelving with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.2</b>	No	2		
	<b><u>Type 2A Hostel</u></b>				
	<b><u>Washing Area</u></b>				
199	30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.4</b>	m	42		
	<b><u>Type 1A Hostel</u></b>				
	<b><u>Cleaner's Store</u></b>				
200	Light duty shelving system with adjustable clip-in shelves complete as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.6</b>	No	8		
	<b>Carried to collection</b>			R	
	Bill No. 7 CARPENTRY AND JOINERY Moedwil Combined School Phase Two				

**Guard House**

201 30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing **no.MCS-PHS-2AH1-602 sheet no.4**

m 12

**Carried to collection**

R

Bill No. 7  
CARPENTRY AND JOINERY  
Moedwil Combined School Phase Two



[illegible]

**Carried to collection**

Bill No. 8  
FLOOR COVERING, etc  
Moedwil Combined School Phase Two

	<b><u>300 x 300 x 2,5mm Semi-flexible vinyl floor tiles in selected colours</u></b>				
202	Vinyl tiles	m <sup>2</sup>	4,757		
203	Inserts 300mm wide of differing colour to create patterns	m	723		
	<b><u>CORNER PROTECTORS, DIVIDING STRIPS, ETC.</u></b>				
	<b><u>Dividing strips</u></b>				
204	M-Trim Aluminium strip (Code ASE 030)	m	300.9		
205	Polyflor Clip Top capping (Code: CTC 30), glue to wall with an approved adhesive and finish with (Code: CB 30) Cliptop capping all in accordance with manufacturer's specifications.	m	208		
206	40mm High Aluminium transition strip	m	107		
	<b><u>SKIRTING, NOSING, ETC.</u></b>				
	<b><u>Skirtings</u></b>				
207	70mm x 16mm thick aluminium skirtings	m	58		
	<b><u>POLISH, SEALERS, ETC.</u></b>				
	<b><u>Scrub with a neutral detergent and seal with three coats water based floor dressing</u></b>				
208	On vinyl flooring	m <sup>2</sup>	4,757		
Carried to collection					R
Bill No. 8 FLOOR COVERING, etc Moedwil Combined School Phase Two					

Section No. 2

Bill No. 8

FLOOR COVERING, etc

**COLLECTION PAGE**

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**Amount  
R**

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Bill No. 8  
FLOOR COVERING, etc  
Moedwil Combined School Phase Two

Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 9</u></b>			
	<b><u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u></b>			
	For preambles see "Model Preambles for Trades"			
	<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 129 for JBCC CPAP purposes</i>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Descriptions</u></b>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or 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 600mm centres, and where described as "bolted", the bolts are measured elsewhere			
	<b><u>Proprietary suspended ceilings</u></b>			
	Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)			
	<b><u>CEILINGS, ETC</u></b>			
	<b><u>Polyster thermal insulation</u></b>			
209	135mm Thick in blanket form insulation laid over ceiling and brandering closely fitted between rafters.	m <sup>2</sup>	1,068	
	<b>Carried to collection</b>			R
	Bill No. 9 CEILINGS ETC Moedwil Combined School Phase Two			

210	75mm thick Insulation closely fitted and laid on top of brandering between roof timbers, etc. in accordance with manufacturer's specifications.	m <sup>2</sup>	3,150		
211	50mm thick Insulation closely fitted and laid on top of brandering between roof timbers, etc. in accordance with manufacturer's specifications.	m <sup>2</sup>	4,128		
<b><u>NAILED UP CEILINGS</u></b>					
<b><u>9,4mm thick Rhinoboard gypsum ceiling boards (SANS Specification 266 - 1982 or later revision) with 7mm H-type pressed steel jointing strips including 38 x 100mm sawn ceiling joists, nailed to (with 2mm diameter galvanised or cadmium plated clout head nails 40mm long) and including 38 x 38mm sawn softwood brandering, in compliance with SANS 653, at 1200mm centres in both directions including any additional brandering at walls and ends</u></b>					
212	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres in one direction	m <sup>2</sup>	6,590		
<b><u>6,4mm thick Fibre cement ceiling boards with mesh wire nailed on ex 38mm x 50mm timber brandering</u></b>					
213	Ceilings including 38 x 38mm sawn softwood brandering at 300mm centres in one direction with H-profile jointing strips	m <sup>2</sup>	2,527		
<b><u>Trap doors, Access panels, etc.</u></b>					
214	Extra over ceilings for lockable access panel size 600 x 600mm, including padlock, hasp and staple	No	69		
<b><u>CORNICES</u></b>					
<b><u>"Rhino" gypsum plasterboard cornices</u></b>					
215	75mm Gypsum coved cornices, nailed to wall and ceiling.	m	6,206		
<b>Carried to collection</b>				R	
Bill No. 9 CEILINGS ETC Moedwil Combined School Phase Two					

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Section No. 2

Bill No. 9

CEILINGS ETC

**COLLECTION PAGE**

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**Page  
No**

109

110

111

**Amount  
R**

**Carried Forward to Summary of Section No.**

R

Bill No. 9

CEILINGS ETC

Moedwil Combined School Phase Two



Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 10</u></b>			
	<b><u>IRONMONGERY</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>NOTE:</u></b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 132 for JBCC CPAP purposes			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Finishes to ironmongery</u></b>			
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded			
	<b><u>HINGES, BOLTS, ETC</u></b>			
217	Bathroom deadbolt	No	154	
218	Brass barrel bolt 150 x 32 x 3.7mm	No	110	
219	L/Flush Bolt 150mm	No	19	
220	L/Flush Bolt 225mm	No	19	
	<b><u>LOCKS</u></b>			
	<b><u>Approved</u></b>			
221	Door lock SS	No	398	
222	WC 8mm Deadlock SS	No	64	
	<b>Carried to collection</b>			R
	Bill No. 10 IRONMONGERY Moedwil Combined School Phase Two			

	<b><u>Escutcheons</u></b>				
223	SS5004-73SS Escutcheon on rose bathroom	No	154		
	<b><u>Cylinders</u></b>				
224	Cylinder profile MKD or similar approved	No	371		
225	W/C PRIVACY CYL	No	31		
226	52 CYL CB lock 25NP KD	No	59		
	<b><u>Door closers</u></b>				
227	Closer EN3-6 SIL	No	60		
	<b><u>Door stops</u></b>				
228	Satin door stop SS or similar approved	No	492		
	<b><u>Furniture</u></b>				
229	Gower Furniture Profile	Pairs	398.0		
	<b><u>Pull handles</u></b>				
230	22mm Diameter tubular stainless steel pull handle bolted to 304mm high x 152mm wide back plate latter to have no sharp corner or edges.	No	60		
231	Stainless Steel 150mm Bolt Through pull handle 22mm Diameter	No	56		
232	Stainless Steel 300mm pull handle flange fixed 22mm diameter.	No	56		
233	Cupboard pull Handle	No	118		
234	2700 Rebate set SS	No	25		
	<b><u>CATCHES AND LATCHES</u></b>				
235	ARC1182SS Adjustable roller catches	No	36		
	<b>Carried to collection</b>			R	
	Bill No. 10 IRONMONGERY Moedwil Combined School Phase Two				

236	Hat & Coat hook rubber tipped or similar approved	No	154		
	<b><u>LETTERS, NAMEPLATES, ETC.</u></b>				
	<b><u>3mm Thick rectangular stainless steel name plate with black letters (letters to be 33,5mm Sans Serif Helvetica medium and to be 7mm from edges of sign) on back, with light grey background, with edges of stainless steel polished fixed to doors with suitable nails</u></b>				
237	Female indicator sign	No	4		
238	Male Indicator sign	No	4		
239	Cleaner Mop and Bucket Sign	No	26		
240	Shower Sign	No	26		
241	Paraplegic toilet sign	No	36		
	<b><u>"Clear Acrylic Signage" or other approved by Architect.</u></b>				
242	Clear acrylic sheet signage size 600 x 150mm including pictures and writing in white.	No	177		
243	Clear acrylic sheet security office signage size 600 x 150mm including pictures and writing in white.	No	3		
	<b><u>PUSH PLATES AND KICKING PLATES</u></b>				
	<b><u>1,2mm Satin finish stainless steel plates counter sunk screwed along edges at not exceeding 200mm centres</u></b>				
244	Push Plate 152mm x 304mm works	No	60		
245	Kickplate 200x800mm works. (Doors to be measured on site prior of plates)	No	122		
	<b><u>SUNDRIES:</u></b>				
246	Emergency Covered Turn Comp	No	30		
	<b>Carried to collection</b>			R	
	Bill No. 10 IRONMONGERY Moedwil Combined School Phase Two				

247	Dust Proof Strike	No	19		
248	Double 32mm stainless steel curtain rod, wall mounted, with metal ball ends for 32mm stainless steel curtain rod	No	554		
249	Single 32mm stainless steel curtain rod, wall mounted, with metal ball ends for 32mm stainless steel curtain rod	No	252		
<b><u>PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC</u></b>					
250	Overall size 1200 x 1200mm carpet pinning boards as complete with aluminium frame, pen tray, fixing components and rounded plastic corners and installed strictly to manufacturers detail and specifications	No	14		
251	Overall size 1800 x 1200mm carpet pinning boards complete with aluminium frame, pen tray, fixing components and rounded plastic corners and installed strictly to manufacturers detail specifications.	No	6		
252	White board size 2400 x 1200mm (Delux Aluminium frame A pen rail) or equally approved to comply with SANS 2400, wall mounted and installed strictly to manufacturers detail specifications. Board to be installed 900mm from floor finish.	No	4		
<b><u>BATHROOM FITTINGS:</u></b>					
253	Stainless steel soap dispenser with a stainless pull lever including screws and dowels	No	160		
254	Soap holder code PHCC3 in 18/10stainless steel finish plugged and screwed to wall,	No	70		
255	Soap dispensers touch free soap dispenser for wall mounting, stainless steel with satin finish, white safety glass front panel, casing with InoxPlus surface refinement for the reduction of finger marks and better cleaning characteristics (easy to clean), material thickness 1.2 mm, inspection window on side, infrared sensor activity for non-touch operation, LED display shows battery status, requires 4 pieces 1.5V AA batteries, suitable for liquid soap and lotions, includes 800 ml refill tank, dispenses 0.6 - 1.1 ml depending on soap, includes mounting materials	No	28		
<b>Carried to collection</b>				R	
Bill No. 10 IRONMONGERY Moedwil Combined School Phase Two					

Upgrading of Moedwil Combined School Phase Two

256	110mm x 114mm Single arm soap rack manufactured from polished stainless steel	No	53		
257	Professional SQ3 toilet tissue dispenser colour white, overall size 130 x 135 x 360mm high.	No	24		
258	Stainless steel double toilet roll holder	No	150		
259	300mm x 326mm x 120mm Paper towel dispenser for wall mounting, stainless steel with satin finish, white safety glass front panel with InoxPlus surface refinement for the reduction of finger marks and better cleaning characteristics (easy to clean), material thickness 1.2 mm, inspection window on side, capacity 300 - 400 pieces of Z-folded paper, includes mounting material.	No	38		
260	19mm Diameter chromium plated towel rail 900mm long including end brackets plugged	No	67		
261	25mm Diameter chromium plated shower curtain rail 1100mm long including end brackets plugged	No	126		
262	32mm Diameter flanged dog leg grab rail with 3 supports with brushed grade 304 stainless steel finish, overall size 604 x 604 x 106mm deep, plugged and screwed to wall with stainless steel screws	No	26		
263	32mm Diameter satin polished stainless steel flushvalve back rail, complete with stainless steel fixing screws and plastic wall plugs	No	26		
264	32mm Diameter flanged cistern rail, approximately 1150mm girth	No	26		
265	32mm Diameter stainless steel 18/10 straight grab rail, approximately 500mm girth	No	24		
266	32mm Diameter stainless steel 18/10 straight grab rail angle bar 135 degree, approximately 900mm girth	No	16		
267	Bathroom Butler Paraplegic cistern grab rail with brushed grade 304 stainless steel finish, overall size 842 x 92 x 227mm deep, plugged and screwed to wall with stainless steel screws or equally approved.	No	34		
Carried to collection				R	
Bill No. 10 IRONMONGERY Moedwil Combined School Phase Two					

268	Medical slatted bath seat that fixes securely to the bath with 4 suction pads,	No	26		
269	Stainless Products 32mm Ø grade 304 stainless steel universal bath rail, plugged and screwed to walls with stainless steel screws	No	134		
270	1500 x 1200mm Teflon coated shower curtains colour white, Curtains & Linen with galvanised shower curtain rings and 50mm diameter stainless steel tube curtain rail fixed to walls across shower entry at 2000mm height.	No	116		
271	1500 x 2000mm Teflon coated shower curtains colour white, Curtains & Linen with galvanised shower curtain rings and 50mm diameter stainless steel tube curtain rail fixed to walls across shower entry at 2000mm height.	No	10		
272	50mm diameter stainless steel tube curtain holder including sundries fixed to walls	m	159		
<b><u>SUNDRIES</u></b>					
273	Stainless steel hand towel dispenser	No	37		
274	Stainless steel waste bin wall mounted, 30litres.	No	42		
275	175 x 285 x 620mm SHE/Hygiene bin for easy disposal slim line design to easily fit inside cubicle free standing or wall mounted all in accordance with the manufacturer's specifications	No	95		
<b><u>STEEL SHELVING AND LOCKERS</u></b>					
<b><u>Light Duty shelves</u></b>					
276	Light duty steel shelving system with adjustable clip-in-shelves size 1925mm height x 610mm deep x 2200mm wide, with braces at the back (size 2000 x 610mm).	No	180		
277	Light duty slotted angle steel shelving size 1600mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	1		
<b>Carried to collection</b>				R	
Bill No. 10 IRONMONGERY Moedwil Combined School Phase Two					

278	Light duty slotted angle steel shelving size 1800mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	72		
279	Light duty slotted angle steel shelving size 2000mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	3		
280	Light duty slotted angle steel shelving size 2800mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	1		
<b><u>STEEL LOCKERS</u></b>					
<b><u>Steel lockers with standard baked enamel finish</u></b>					
281	Single door heavy-duty steel lockers, 1800mm high x 450mm wide x 500mm deep, with all necessary accessories in accordance with the manufacturer's specifications; with one shelf at the top, a hanging rail underneath and hasp staple for padlock facility, the lock to be fixed to the wall	No	440		
<b>Carried to collection</b>				R	
Bill No. 10 IRONMONGERY Moedwil Combined School Phase Two					

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Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 11</u></b>			
	<b><u>STRUCTURAL STEELWORK (PROVISIONAL)</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>NOTE:</u></b> <i>Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 134 for JBCC CPAP purposes</i>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>Shop drawings</u></b>			
	The contractor will be required to prepare shop details for the work which must be submitted to the Engineer for approval before fabrication is started. Approval of shop details by the Engineer will include the following:			
	a) Examination of member sizes for consistency with design requirements.			
	b) Examination of all connections designed and/or detailed by the fabricator, for adequacy of load transferance.			
	c) Approval of leading dimensions which are taken to include such dimensions as may influence the design (e.g, depth of trusses and girders) or which may grossly affect site programme (eg, truss spans and stanchion heights).			
	Notwithstanding any approval of these details, the contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.			
	<b>Carried to collection</b>		R	
	Bill No. 11 STRUCTURAL STEELWORK Moedwil Combined School Phase Two			

**Material and workmanship**

The steelwork is to be fabricated from mild steel to SABS 1431 Grade 350W. The whole of the fabrication and workmanship generally is to be in strict accordance with SABS 0162-1984 as amended. The material shall be of best quality throughout, free from loose rust or millscale, true to thickness and profile throughout and of the section and mass specified subject to a 2% tolerance for rolling margin. Consideration will be given to any detail variation which the contractor may wish to make with the view to the simplification of either fabrication, delivery or erection. Substitutions must be made at the contractor's own expense.

The contractor shall provide Works Test Certificates where so required by the Architect.

**Testing**

The Engineer shall be at liberty to select test pieces from steelwork in the workshop or on the site and to have them tested. The expense of such tests are to be borne by the contractor if the steelwork does not comply with the standards laid down above. A provisional sum is allowed in the bill of quantities for non-destructive testing.

**Hold down bolts**

Holding down bolts and other fixing devices which are to be embedded in concrete must be supplied to the principal contractor on request together with the necessary information, identification and templates.

2 mm Mild steel plate templates provided on a scale of one template for every five groups of bolts, suitably marked to ensure easy identification are to be supplied to the principal contractor.

Any costs incurred by subsequent repositioning of bolts, etc resulting from the contractor having failed to furnish adequate information, identification and templates will be for the contractor's account.

**Carried to collection**

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STRUCTURAL STEELWORK  
Moedwil Combined School Phase Two

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### **Welding**

Welding shall be in accordance with SABS 044

"Welding:

Parts I, II and III".

Welding shall be carried out in a manner which will prevent any distortion of the weld or the parent section.

All welds shall have adequate root fusion and shall be free from cracks, porosity or other irregularities and any undercutting shall be made good by the deposition of additional runs of weld metal.

Any completed welds showing cracks, cavities or other effects shall be cut out and made good at the contractor's own expense.

Mild steel electrodes shall comply with SABS 455 "Covered Electrodes for Manual Arc Welding of Mild Steel and Medium High Tensile Steel".

### **Bolts**

Bolts shall have well-formed heads forged from the solid. Nuts shall closely fit the bolts so that they can only just be turned by hand and at least one clear thread shall project beyond the nut when fully tightened. All bolts shall have one washer under the nuts and shall be so tightened that the threaded portion does not bear on the members connected.

Where bolt heads or nuts bear upon bevelled surfaces they shall be provided with tapered washers of 2,3 mm mean thickness to provide a seating square with the axis of the bolt.

### **Friction grip bolts**

Connections specifying high strength friction grip bolts are to be in strict accordance with SABS 094 "Bolted Friction Grip Joints in Structural Steelwork" and the bolts used are to be in accordance with BS 3139 Part 1 : 1959 "General Grade Bolts, High Strength Friction Grip Bolts for Structural Engineering".

Notwithstanding the above, the following must be rigidly adhered to :

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Bill No. 11  
STRUCTURAL STEELWORK  
Moedwil Combined School Phase Two

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a) Two-case hardened washers, one flat or bevelled under the head and the other flat or bevelled under the nut shall be used with each bolt.

b) Contact surfaces shall not be painted and shall be thoroughly cleaned free of dirt, oil, loose scale, burrs and other defects which are liable to reduce friction resistnace between surfaces.

c) At all times the correct torques shall be applied to the different sizes of bolts.

### **Erection**

The steelwork generally is to be fabricated in the contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, temporary erection bracing, erect and plumb all steelwork and supply all steel wedges and tacks as required.

Items may be detailed for delivery "piece small" or the contractor may prefabricate if he is satisfied that suitable arrangements for transport can be made.

Connections are to be designed for the forces indicated on the drawings or to the maximum capacity of the members.

### **Cleaning and painting**

All structural steel is to be thoroughly degreased to remove all grease or oil and then wire-brushed, scraped or sand-papered to remove all rust, mill-scale or surface contaminations and is to be immediately given one coat zinc chromate, allowed to dry overnight and given one coat of universal undercoat prior to delivery to site. All damaged paintwork is to be made good on site after erection is complete.

### **Testing of welders**

Tenderers must include in their rates for the testing of any welder used on the work who has not been tested within a period of six months immediately preceding his employment on this contract.

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Bill No. 11  
STRUCTURAL STEELWORK  
Moedwil Combined School Phase Two

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**Further notes**

Also refer to the structural steelwork notes indicated on the Engineer's relevant structural drawings.

**Painting/corrosion protection specification**

a) All steelwork shall be mechanically wire-brushed to ST3O blast clean to SA2.

b) All steelwork shall receive one coat primer to DFT-100 micron.

**STEEL COLUMNS AND BEAMS**

**Welded columns in single lengths with flat section base, top, bearer and connection plates, bolted to concrete**

282	100 x 100 x 10mm T-Section Angle Iron Steel beam	t	0.52
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**Bolts, Nuts, Washers and etc**

283	230 x 230 x 6mm Thick base plate	No	36
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284	M16 Chemset Bolts 150mm deep grout with R-kem Grout	No	144.00
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**TESTS**

Weld testing

285	Welding tests	No	4
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STRUCTURAL STEELWORK  
Moedwil Combined School Phase Two

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Item No	Quantity	Rate	Amount R
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 12</u></b>			
<b><u>METALWORK</u></b>			
For preambles see "Model Preambles for Trades"			
<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 136 for JBCC CPAP purposes</i>			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
DESCRIPTIONS			
Descriptions of bolts shall be deemed to include nuts and washers			
Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete			
Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described			
<b><u>PREAMBLES</u></b>			
<i>For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)</i>			
<b><u>TRADE NAMES</u></b>			
<i>No reference to trade names shall be made in these bills of quantities</i>			
<b>Carried to collection</b>			R
Bill No. 12 METALWORK Moedwil Combined School Phase Two			

**General:**

All glazed aluminium windows, sliding doors, doors, shopfronts, skylights, etc. shall be designed, manufactured, supplied and installed in strict compliance with the "Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA), General Specification for Architectural Aluminium and Glass Products February 2005 Edition" and SANS 10137.

All descriptions shall be deemed to include transoms, mullions, etc. as per the Architect's drawings.

**Design and installation:**

The Sub-Contractor shall be required to design the entire installation, provide all labour, materials, equipment and services required to complete the installation as specified herein.

The Sub-Contractor shall ensure that the necessary wind pressure provisions have been incorporated within the design criteria. The Sub-Contractor shall submit his wind design criteria to the Architect for inspection.

The Sub-Contractor shall allow for expansion of glass, framing, surrounding structures, etc.

The Sub-Contractor shall allow for and produce fully detailed workshop drawings (**3 copies**) including samples of all ironmongery within 14 working days of the Main Contractors request.

**Fire resistance:**

The installation shall conform to the local authorities fire resistance standards.

**Templates:**

Templates formed of 25 x 25mm square hollow section steel are to be provided in each opening to ensure that all windows, doors, shopfronts, skylights, etc. are built in plumb and square.

The subcontractor is to use his discretion in providing a sufficient quantity of templates as required to complete the Works as per the Main Contractors programme.

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METALWORK  
Moedwil Combined School Phase Two

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**Grounds:**

19 x 25mm Wrought SA pine grounds are to be fitted all round windows, doors, etc. Where grounds are visible they should be painted to form a shadowline.

**Sealing:**

Window frames are to be sealed all round internally and externally against the building structure with approved silicone jointing compound to prevent water ingress.

**Weather seals:**

All windows, doors, shopfronts, skylights, etc. are to be fitted with approved woolpile weather seals.

**Ironmongery to doors:**

Door leaves are to be hung on one and a half pairs of 100 x 75mm butt hinges and fitted with one spring clip door holder. In addition double doors are to be fitted with one 150mm and one 200mm natural anodised flush lever bolt.

Tenderers shall submit full specifications of ironmongery quoted which shall include all furniture, locks, handles, butt hinges, floor spring hinges, etc.

The Sub-Contractor shall be required to submit ironmongery samples for approval prior to installation.

Sub-Contractors are to note that the approval of shop drawings does not automatically indicate acceptance of ironmongery proposals.

**Prices:**

All glazed aluminium windows, sliding doors, doors, shopfronts, skylights, etc. must include for all jointing, notching, cutting, etc. and for setting up and fixing in position complete with glass, glazing beads, external cills, ironmongery, fixing brackets, lugs, bolts, timber grounds, silicone sealant, templates, etc. all as detailed and scheduled on the drawings and as necessary for the satisfactory execution of the work.

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Bill No. 12  
METALWORK  
Moedwil Combined School Phase Two

**Factory quality control:**

The Sub-Contractor shall afford the Main Contractor full access to plant, shop and assembly point to view and inspect the process and method employed in the fabricating and assembly of glazed aluminium windows, sliding doors, doors, shopfronts, skylights, etc.

**Protection and cleaning:**

All aluminium must be protected against damage by covering with temporary casings (masking tape, plastic coatings, etc.) and against deterioration or discolouration caused by mortar, wax, paint, etc., all to the entire satisfaction of the Principal Agent. On completion all such protection shall be removed and work cleaned down and left in proper working order.

All glazing is to be protected from damage, breakage, scratches, etc. and allowances shall be made for polishing the glass as and when instructed by the Main Contractor.

**STEEL SCREENS, GATES, ETC**

**Steel security gates consisting of 10 x 10mm mild steel bars placed at 100mm centres at 45 degrees angles, screens etc. installed complete including subframes, welded, etc**

286	Single security steel gate 490 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	16
287	Single security steel gate 2000 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	8

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METALWORK  
Moedwil Combined School Phase Two

288	Single security steel gate 600 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	16		
289	Single steel security gate 900 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	37		
290	Double security steel gate 1600 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	1		
<b><u>Matt Bronze burglar proofing as per manufacturer's specifications</u></b>					
<b><u>Guard House</u></b>					
291	Window size 600 x 600mm high (WGH03)	No	6		
292	Window size 1500 x 1200mm high (WGH02)	No	6		
293	Window size 2400 x 1200mm high aluminium sliding type (WGH01)	No	6		
<b>Carried to collection</b>				R	
Bill No. 12 METALWORK Moedwil Combined School Phase Two					

<b><u>Type 2A Hostel</u></b>					
294	Window size 600 x 900mm high (W2AH03)	No	140		
295	Window size 900 x 900mm high (W2AH02)	No	40		
296	Window size 900 x 900mm high (W2AH05)	No	20		
297	Window size 1200 x 900mm high (W2AH04)	No	224		
<b><u>Type 1A Hostel</u></b>					
298	Window size 600 x 900mm high (W1AH03)	No	144		
299	Window size 900 x 900mm high (W1AH02)	No	44		
300	Window size 900 x 900mm high (W1AH05)	No	16		
301	Window size 900 x 1200mm high (W1AH04)	No	48		
302	Window size 900 x 1500mm high (W1AH01)	No	16		
<b><u>TV Room</u></b>					
303	Window size 600 x 900mm high (WTV02)	No	16		
304	Window size 900 x 1500mm high (WTV01)	No	76		
<b><u>Hostel Master</u></b>					
305	Window size 600 x 600mm high (WHM03)	No	4		
306	Window size 1200 x 900mm high (WHM04)	No	2		
<b>Carried to collection</b>				R	
Bill No. 12 METALWORK Moedwil Combined School Phase Two					

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	<b><u>1,2 mm Double rebated pressed steel door frames suitable for half brick walls:</u></b>				
320	Frame for door size 813 x 2 032mm high	No	28		
	<b><u>1,2mm Double rebated pressed steel door frames suitable for one brick walls:</u></b>				
321	Frame for double door 1600 x 2032mm high.	No	90		
	<b><u>1,6mm Double rebated pressed steel door frames suitable for half brick walls:</u></b>				
322	Frame for door size 813 x 2 032mm high	No	15		
	<b><u>1,6mm Double rebated pressed steel door frames suitable for one brick walls:</u></b>				
323	Frame for single door 813 x 2032mm high.	No	500		
324	Frame for single door 900 x 2100 mm high.	No	36		
325	Frame for double door 1200 x 2032mm high.	No	39		
326	Frame for double door 1700 x 2032mm high.	No	1		
	<b><u>Purpose made medium universal doors, sidelights, fanlights, etc with 12 x 12mm glazing beads</u></b>				
327	Glazed double door 1615 x 2186mm high with rebated frame suitable for one brick wall (Glazing elsewhere)	No	4		
	<b><u>ALUMINIUM WINDOWS, DOORS, ETC</u></b>				
	Glazing, unless otherwise specified in an individual description, shall be undertaken as follows: 8,76mm Laminated safety glass @ 900mm AFFL 8,38mm Normal strength laminated safety glass @ 900 - 2040mm height 6,38mm Obscure glass above 2040mm height				
	Aluminium and glazing shall comply with the following specifications:				
	Minimum performance requirements as published by AAMSA;				
	Aluminium alloy extrusion                      BSS 1474. Aluminium alloy sheets                          SANS 903.				
	<b>Carried to collection</b>			R	
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Anodising SANS 999.  
Neoprene performed seals and gaskets SATM C542  
Powder coat finishing SANS 1274  
and 1578 (with a  
test certificate  
available on  
request).

National Building Regulations Part "N", SANS 0137, SANS 0400, SANS 1263 and AAMSA Selection guide for Safety Glazing Materials: monolithic obscure and float glass thicknesses and glazing, shall comply strictly to these specifications.

DOORS, WINDOWS, ETC. to be manufactured by an approved firm of specialists, to be of the best quality and design truly square and unless otherwise described, prepared to receive glazing beads from the outside. All opening portions must fit perfectly on all faces and be so hung as to open and close freely without binding at any point. Wherever possible, all angles and intersections to be welded by electric welding, argon or arc welding. A sample window is to be submitted to the Employer for approval before the work is put in place.

The frames generally are to be for brickwork, blockwork or concrete reveals. They are to be fitted with fixing lugs of 2,8mm aluminium 13mm wide x 100mm long welded to framing, one near each corner and intermediately not more than 300mm apart to sides, top and bottom. Where concrete reveals, etc., the frames are to be countersunk holed for and fitted with the necessary screws at the centres, as for the lugs above.

Immediately after the windows, doors, etc., have been delivered on to site, they are to be thoroughly overhauled and all necessary adjustment or repairs made before they are fixed in position. Where they come into contact with brickworks, blockwork, concrete, steel, etc., the framing is to be treated with bituminous paint in an approved manner. The windows, doors, etc., are to be placed in their positions for building in and adjusted to open and close properly and are to be securely structured to prevent distortion whilst the brickwork and lintels, are being built.

On completion of all other work, the windows, doors, etc., are to be adjusted as necessary and rendered in a complete and satisfactory state of repair and in working order.

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## **GLAZING**

**GENERAL: All rates for doors, windows, shopfronts, etc., should include for all glazing as specified.**

**GLASS AND GLAZING:** All functional glass must be delivered to site, cut to size and ready for installation and must be classified to indicate grade and thickness. Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter, an insurance letter will follow absolving the contractor of responsibility.

**FACTORY GLAZING:** All glazing carried out in manufacturer's factory must be in accordance with window fabricated types. Manufacturing of frames must provide for glass, vinyl extrusions, cut-off sharp corners, these are to line up with frame/glass rebates.

**GLAZING ON SITE:** This is to be carried out in accordance with glass specification previously referred to. Glazing in windows must be undertaken from outside, with drawn vinyl strips, Neoprene gaskets, and not hardening "Bitumastic" putty, as described.

**ADJUSTED LOUVRES:** To be adjustable, complete with frame, stiles, centrally pivotted double sprung glass holders, weather beads, glass louvres, burglar proofing, etc.

**SIZES:** The sizes given are approximate and are not to be used for ordering purposes, but careful references must be made to the building for exact sizes. Any costs incurred for errors in this respect shall be at the contractor's expense.

All items are, unless otherwise described, measured net.

**BUILDING IN:** Windows, doors, etc. must be set up and build in complete in position in concrete or brickwork and left completely watertight and prices should include thereof.

**ANODISING:** Anodising of aluminium sections must comply with SANS 999. Anodising must be a minimum of 25 MIKRON.

**POWDER-COATING:** Powder-coating to SANS 1796 specifications with a test certificate available on request.  
**A guarantee of no less than 10 years is to be**

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**provided against peeling and discolouration. Allow for non-standard colour powder-coated aluminium as cobalt blue or similar colour.**

PROTECTING: Windows, doors, etc., must, wherever practicable, be erected as near to the end of the contract period as possible to minimise the danger of damage or deterioration and all work must be protected by covering up with temporary casings against damage, deterioration or discolouration caused by mortar droppings, varnish, wax, paint, etc., all to the entire satisfaction of the Engineer.

IRONMONGERY: Window and doors are to be fitted with the necessary locks, door closers, etc., as described and prices should include thereof.

DESCRIPTIONS: Descriptions shall be deemed to include all components of the units i.e glass and glazing, ironmongery complete with security lock and latches as per manufacturer's specification, dust seals, timber fixing blocks, protection film, etc.

DRAWINGS: Tenderers are referred to Architect's drawings in the addendum for tender purposes .

**NOTE:** Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 140 for JBCC CPAP purposes

**6.3mm thick laminated epoxy powder coated safety glass intruder-prufe Hi-impact PVB frosted glass with silicone fill externally and butyl strips with silicone internally and as per manufacturer's specification**

**Guard House**

328 Window size 2400 x 1200mm high aluminium sliding type (WGH01)

**No**

**3**

329 Window size 1500 x 1200mm high aluminium sliding type (WGH02)

**No**

**3**

330 Window size 600 x 600mm high (WGH03)

**No**

**3**

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	<b><u>Type 2A Hostel</u></b>				
331	Window size 900 x 1500mm high (W2AH01)	No	48		
332	Window size 900 x 900mm high (W2AH02)	No	40		
333	Window size 600 x 900mm high (W2AH03)	No	140		
334	Window size 1200 x 900mm high (W2AH04)	No	234		
335	Window size 900 x 900mm high (W2AH05)	No	20		
	<b><u>Type 1A Hostel</u></b>				
336	Window size 900 x 1500mm high (W1AH01)	No	32		
337	Window size 600 x 900mm high (W1AH03)	No	216		
338	Window size 900 x 900mm high (W1AH02)	No	68		
339	Window size 900 x 1200mm high (W1AH04)	No	72		
340	Window size 900 x 900mm high (W1AH05)	No	24		
	<b><u>TV Room</u></b>				
341	Window size 600 x 900mm high (WTV02)	No	16		
342	Window size 900 x 1500mm high (WTV01)	No	76		
	<b><u>Hostel Master</u></b>				
343	Window size 1500 x 1500mm high (WHM01)	No	2		
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## Upgrading of Moedwil Combined School Phase Two

344	Window size 1500 x 1200mm high (WHM02)	No	6		
345	Window size 600 x 600mm high (WHM03)	No	4		
346	Window size 1200 x 900mm high (WHM04)	No	2		
347	Window size 1500 x 600mm high window opening (WHM05)	No	2		
<b><u>Hostel Administration</u></b>					
348	Window size 900 x 1500mm high (W01)	No	8		
349	Window size 900 x 900mm high (W02)	No	11		
350	Window size 600 x 900mm high (W03)	No	3		
351	Window size 1200 x 900mm high (W04)	No	2		
352	Window size 900 x 900mm high, purpose made aluminium sliding type (W05)	No	1		
<b><u>Staff House</u></b>					
353	Window size 1200 x 900mm high (WSH01)	No	8		
354	Window size 900 x 900mm high (WSH02)	No	8		
355	Window size 600 x 900mm high (WSH03)	No	16		
356	Window size 1800 x 1500mm high (WSH04)	No	24		
357	Window size 1500 x 1500mm high (WSH05)	No	16		
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### **STEEL ROLLER SHUTTERS ETC**

**"Roll-Up" garage electrically operated 75 x 1,0mm thick end locked slatted curtain roller shutter with and including motor, wicket gate, ironmongery, lockable push button control, standard bottom rail, overhead box 360mm high, 75mm wide guides, extruded aluminium T-bar with rubber seal, hot dip galvanized ancillary components, including 4,5mm thick end plates, guide rails, etc. fixed in strict accordance with manufacturer's instructions:**

358	Door to suite opening size 2500 x 2100mm high	No	2
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### **STRONGROOM DOORS, WALL SAFES AND VENTILATORS**

The rates for strongroom doors, wall safes and ventilators shall include for fixing in position complete

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359	Double ended 185 x 185mm steel telescopic ventilators built into 270mm thick wall, complete with face plates on both sides, drop shutter mechanism operating from fuseable metal plug, wire gauze and baffle plates	No	2
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360	Record strong room door, two hours fire rating and one key lock standard and frame for overall height and width 2015 x 1125mm fitted strictly as per manufactures details and specification.	No	2
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### **RETRACTABLE WASHING LINE**

**Retractable Clothes or equally approved**

361	1500mm wide x 800mm deep retractable washing line mounted to the wall as per the Architect specification	No	6
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### **METAL SUNDRIES**

**Seats/Chairs**

362	Polypropylene's chair 350mm High with stackable steel frame colour to be determined by the Architect	No	68
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# Upgrading of Moedwil Combined School Phase Two

363	Polypropylene's chair 450mm High with stackable steel frame colour to be determined by the Architect	No	440		
364	Computer room Polypropylene's chair 450mm High with stackable steel frame colour to be determined by the Architect	No	22		
	<b><u>Benches</u></b>				
365	Slatted seats of 20 x 100mm slats at 25mm centres, fixed to 38 x 38 x 1.2mm powder coated standard duty steel tubing welded to floors	m	182		
366	Slatted seats of 76 x 100mm slats, fixed to 50 x 50mm RHS frame at approximately 550mm centres raw bolted to the floor and the wall, approximately 405mm high	m	40		
	<b><u>Beds</u></b>				
367	Learner bed size 1905mm x 910mm x 350mm High with adjustable headrest including High density foam mattress with PVC cover	No	68		
368	Learner bed size 1905mm x 910mm x 520mm High with adjustable headrest including High density foam mattress with PVC cover	No	440		
369	Sickroom bed size 1905mm x 910mm x 520mm High with adjustable headrest including High density foam mattress with PVC cover	No	2		
<b>Carried to collection</b>				R	
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- 1.1 Allow all new concrete work and screeds to cure for at least 28 days before proceeding. All new concrete work and screeds must have a moisture content of 5% or less before proceeding. When screeding directly onto concrete, ensure that the surfaces are clean and free of all traces of curing agents, laitance and any other surface contaminants, preferably by scarifying or sandblasting.
- 1.2 Any screeding must be firmly attached to the underlying concrete, must be integrally sound (no crumbling, cracking, etc.) and must be of a quality and consistency suitable for screeding over. All defective areas must be removed and the floor made as follows:
  - 1.2.1 Prime the surface with a FLOOR PRIMER, which is brushed onto the floor. While this coat is STILL TACKY, the RAPIDFIX must be applied.
  - 1.2.2 Add RAPIDFIX to clean water and mix until the desired trowelable paste is achieved, which must be lump free and creamy. Do not mix-up more than can be used in 20 minutes. Stir occasionally whilst in use. Apply the paste to the area using a steel trowel and work to a smooth level surface.
  - 1.2.3 Allow these areas to dry overnight before proceeding.

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- 1.3 All 'lows' and voids in the floor must be identified and filled with approved rapid-fixing material prior to applying approved screeding material, and all "highs" or trowel marks must be identified and ground down.
- 1.4 The background surface must be free from dust, loose particles and surface contaminants (Vacuuming is preferred).
- Prime the surface with approved keying slurry consisting of one part approved slurry mixed with two part ordinary cement (by volume) which is brushed onto the floor.  
Allow the approved keying slurry coat to dry completely, and then prime the floor with a coat of approved floor primer.  
The approved floor primer application must be allowed to cure for twelve hours before the approved screeding material installation is commenced.

2. **Screeding**

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- 2.1 Add 22kg approved screeding material to 6 litres of clean, cool water while stirring slowly with an electric drill of at least 700 watts with an approved mixing attachment. The mixing process and application should be continuous. Mix thoroughly until a smooth, lump-free paste is obtained. Allow the mix to stand for 3 minutes, and then stir again for 1 minute. Stir occasionally whilst in use. DO NOT OVER WATER THE MIX. Do not mix up more than can be used in 20 - 30 minutes.
- 2.2 Pour the mix onto the floor and spread with an approved notched floor rake or an approved straight edge rake to the required thickness (The size of the notch of the approved floor rake or the height adjustment of the approved straight edge rake will determine the thickness).
- 2.3 Immediately smooth the compound using an approved flat smoothing rake. It is recommended to wear approved spiked shoes during the installation. Roll the area using an approved spiked roller to facilitate the release of any trapped air to produce a smooth surface, and to allow it to dry.
- 2.4 It is recommended to apply approved screeding material in thicknesses exceeding 3mm to obtain optimum results (A 5mm build is recommended).
- 2.5 All designed structural or cold joints in the background substrate must be identified, and saw cuts must be made in the screeding material layer to coincide with these joints.
- 2.6 The floor must be left to cure overnight. Ensure that the surface is clean and free of dust and loose particles, before proceeding with applying the vinyl floor covering using an approved vinyl adhesive.

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## SCREEDS

### Screeds on concrete

370	30mm Thick on floors and landings	m <sup>2</sup>	8,977
371	Self levelling screed on floors	m <sup>2</sup>	3,900
372	Screed laid to fall towards gulley trap finished with non-slip mosaic floor tiles	m <sup>2</sup>	84

## GRANOLITHIC

Tinted granolithic finish composed of one part cement, one part fine and two parts coarse sand and one part granite that would pass through a 5mm mesh sieve (Colour, pattern and aggregate size to architect's approval).

373	30mm Thick on floors.	m <sup>2</sup>	1,312
374	Skirting 75mm high x 20mm thick	m	191

## EPOXY

6mm Thick gloss, anti-slip, hygienic and durable epoxy terrazzo floor with decorative granite and flint aggregate, in strict accordance with the manufacturer's specifications

375	On floors	m <sup>2</sup>	1,632
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## INTERNAL PLASTER

12mm thick one coat cement plaster with gypsum finish on brickwork

376	On walls	m <sup>2</sup>	18,015
377	On narrow widths	m <sup>2</sup>	1,153

## EXTERNAL PLASTER

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Section No. 2

Bill No. 14

TILING

**COLLECTION PAGE**

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Bill No. 14

TILING

Moedwil Combined School Phase Two

Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 15</u></b>			
	<b><u>PLUMBING AND DRAINAGE (PROVISIONAL)</u></b>			
	For preambles see "Model Preambles for Trades"			
	<i><b><u>NOTE:</u></b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 148 for JBCC CPAP purposes</i>			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>"Polycop" polypropylene pipes:</u></b>			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	<b><u>"Polylink" polypropylene pipes:</u></b>			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured			
	Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers			
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Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers

Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same

All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

**Concrete pipes:**

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings

**Vitrified clay pipes:**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings

**uPVC pipes and fittings:**

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings:**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings

Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints

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**Copper pipes:**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground

**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**

**Lead pipes and fittings**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel

**Reducing fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

**Wire gratings**

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

**Septic tanks**

Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions

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**Exposed concrete surfaces**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster

**Excavations**

No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling

"Soft rock" and "hard rock" shall be as defined in "Earthworks"

**Laying, backfilling, bedding, etc. of pipes**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions

Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : 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 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding

**Flush pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Stainless steelbasins, sinks, wash troughs, urinals, etc.**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable

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### Waste unions

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings

### Steel sectional water tanks

Tanks shall comply with SABS CKS 114

### "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 with minimum 15mm lap per spiral unless otherwise described

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc

### RAINWATER DISPOSAL

#### Seamless Aluminium

397	125 x 100mm x 0.8mm thick seamless aluminium eaves gutters fixed to falls on splay rebated roof trusses.	m	1,137
398	Extra over for stopped end	No	88
399	Extra over for angle	No	280
400	100mm diameter, 0.8mm thick seamless aluminium rainwater downpipe fixed to walls.	m	632
401	Extra over for bend	No	280
402	Extra over for shoe	No	280
403	Extra over for eaves or plinth offset	No	280

### SANITARY FITTINGS

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<b>Approved</b>					
404	510 x 405mm white vitreous china basin bolted with one pair of 10mm bolts and one tapholes or equally approved.	No	124		
405	510 x 405mm white vitreous china basin with three semi punched tapholes, intergrated overflow and chainstay hole through the centre semi punched taphole bolted with one pair of 10mm bolts and two tapholes or equally approved.	No	42		
406	595 x 455mm oval self rimming vanity basin with three semi punched tapholes, intergrated overflow and chainstay hole through the centre semi punched taphole bolted with one pair of 10mm bolts and two tapholes or equally approved.	No	8		
407	Junior outlet washdown pan and matching 6 litre cistern complete with lid and fitments, and Junior Jazz seat. The suite is designed to flush effectively on 6 litres. Pan can also be used with a duct cistern, or a concealed cistern.	No	8		
408	Low level WC with pan with close coupled 90 degree outlet open rim front flush suite complete with lid and fitments or dual flush suite.	No	111		
409	Close coupled 90 degree outlet open rim front single flush suite complete with lid and fitments or dual flush suite	No	21		
410	Low level suit with matching 9 litre cistern complete with lid, fitments and purpose made C.P. side flush lever mounted on wall adjacent to cistern (left or right).	No	26		
411	Vitreous china wall hung urinal with top inlet or back inlet. Overall size 600 x 385 x 380 mm. Top inlet fittings and back inlet fittings include a spreader (with a 20mm diameter thread), and two hanger brackets.	No	50		
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412	Chrome plated single hole basin mixer manufactured in accordance with SANS 1480:2005 and SANS 226:2004 with Cameo ceramic fireclay drop-in vanity basin colour white, size 595 x 455mm with one tapehole including chainstay hole including flexible overflow tube attachment chainstay hole, fitted into opening in vanity top (elsewhere specified) and sealed with silicone sealant where basin rim meets vanity top.	No	16		
	<b><u>"Porcelain Enamel " steel baths</u></b>				
413	1700 x 700 x 390mm Deep built-in white bathtub installed on mortar bed and brick support walls (elsewhere measured) with batten support.	No	41		
414	1700 x 700 x 400mm Deep built-in white bathtub installed on mortar bed and brick support walls (elsewhere measured) with batten support. (Paraplegic tub)	No	34		
	<b><u>Sinks, etc.</u></b>				
415	Stainless steel single end bowl size 428 x 428mm x 190mm drop-in granite counter and including 40mm square stainless steel gallow brackets, all fixed with stainless steel bolts to wall, etc.	No	8		
416	Stainless steel single end bowl overlay sink grade 304 (18/10) size 1200 x 535mm: drop-in one piece pressed sink in formica counter and including 40mm square stainless steel gallow brackets, all fixed with stainless steel bolts to wall, etc.	No	11		
417	Stainless steel double bowl overlay sink grade 304 (18/10) size 1200 x 535mm: drop-in one piece pressed sink in granite counter and including 40mm square stainless steel gallow brackets, all fixed with stainless steel bolts to wall, etc.	No	8		
418	Stainless steel single drop on washtrough, size 600 x 500 x 257mm wide mounted to wall with a pair of galvanised mild steel falcon brackets with a 40mm waste outlet.	No	8		
419	Stainless steel double washtrough, size 1030 x 440 x 300mm wide supplied with fixing lugs to mount the trough to the wall.	No	64		
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<b><u>Concrete Washtroughs</u></b>					
420	1200 x 553 x 260mm Double bowl wall-hung wash tub with radiused internal corners, fitted with two off 25mm square stainless steel gallow brackets	No	2		
<b><u>WASTE UNIONS, ETC.</u></b>					
421	40mm Chromium plated waste union	No	72		
422	40mm chrome plated unslotted bath or sink waste union.	No	96		
<b><u>"PVC"</u></b>					
<b><u>TRAPS, ETC.</u></b>					
<b><u>PVC (SANS 1321)</u></b>					
423	40mm "P" or "S" trap	No	168		
424	38mm CP domical grating	No	50		
425	32 x 40mm CP bottle trap	No	242		
426	40 x 50mm CP bottle trap	No	50		
427	38mm CP urinal flush-valve	No	50		
428	50mm trap with combined chromium plated grid	No	126		
<b><u>TAPS, VALVES, ETC.</u></b>					
429	Chrome plated basin mixer manufactured in accordance with SANS 1480:2005 and SANS 226 : 2004 or similar approved	No	155		
430	Carina chrome plated pillar tap with overarm swivel outlet.	No	50		
431	Single lever bath mixer with diveter hand shower hose & bracket chrome. 1/2'BSP male iron shower hose outlet,aerated bath outlet. 3/4'BSP male iron connection ends.	No	41		
432	15mm 232/350CP angle regulating valve	No	748		
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433	15mm "111" Chrome plated star pattern pillartap .	No	200
434	15mm Chrome plated Square shower head, 200 x 145mm with classic spray, balljoint connector and Anti-lime nipples.	No	126
435	15mm chrome plated Tudor sink mixer with aerated swivel spout and S-connections with wall flanges, manufactured in accordance with SANS 226:2009 Type 2, installed to manufacturer's recommendations.	No	29
<b><u>SANITARY PLUMBING</u></b>			
<b><u>uPVC pipes</u></b>			
436	40mm Pipes	m	75
437	50mm Pipes	m	1,132
438	50mm Pipes laid in filling below floors	m	352
439	110mm Pipes	m	837
<b><u>Extra over uPVC pipes for fittings</u></b>			
440	40mm Bend	No	90
441	40mm Access bend	No	150
442	50mm Access bend	No	661
443	110mm Pan connector	No	158
444	110 mm Access bend	No	120
445	40 mm Access junction	No	90
446	50 mm Access junction	No	80
447	110 mm Access junction	No	55
448	50 mm Access reducing junction	No	70

Carried to collection

R

Bill No. 15  
PLUMBING AND DRAINAGE (PROVISIONAL)  
Moedwil Combined School Phase Two

449	50 mm stub stack with one 40mm junction	No	40		
450	50 mm stub stack with one 50mm junction	No	80		
451	110 mm Access reducing junction	No	40		
452	110 mm stub stack with one 50mm junction	No	49		
453	110 mm stub stack with one 110mm junction	No	63		
454	50mm vent valve	No	30		
455	110mm vent valve	No	25		
456	100 x 100 x 50mm Access reducing junction	No	60		
<b><u>TESTING</u></b>					
<b><u>ELECTRIC WATER HEATERS</u></b>					
457	250 Litre horizontal floor/wall mounted electric water heater	No	11		
<b><u>DRIP TRAYS</u></b>					
<b><u>0.6mm Galvanised sheet steel</u></b>					
458	Drip tray including overflow, etc for 250 litre geyser	No	11		
<b><u>WATER SUPPLIES</u></b>					
<b><u>Class "O" copper pipes</u></b>					
459	15mm Pipes	m	3,203		
460	15mm Pipes chased into wall	m	4,726		
461	22mm Pipes	m	3,125		
<b><u>Extra over class "O" copper pipes for capillary fittings</u></b>					
462	15mm Fittings	No	2,180		
463	22mm Fittings	No	784		
<b>Carried to collection</b>				R	
Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL) Moedwil Combined School Phase Two					

	<b><u>Copper overflow and service pipes</u></b>				
464	15mm Service pipe 450mm girth	No	800		
465	22mm Service pipe 450mm girth	No	650		
	<b><u>FIRE APPLIANCES, ETC</u></b>				
466	4.5kg Dry chemical powder fire extinguisher on and including wrought Meranti backboard size 520 x 100 x 22mm thick plugged and screwed to wall and finished with two coats of signal red enamel paint, including 120 x 20 x 2mm mild steel strip bent to form hook.	No	126		
467	Fire hose reel complete with 20mm diameter x 30m rubber hose, chromium plated stopcock, shut-off nozzle and wall brackets, etc.	No	22		
	<b><u>WATER SUPPLIES TO FIRE APPLIANCES</u></b>				
	<b><u>Galvanised mild steel screwed and socketed pipes and fittings</u></b>				
468	25mm Pipes	m	1,500		
469	25mm Pipes chased into brick walls.	m	750		
470	32mm Pipes	m	1,100		
471	32mm Pipes chased into brick walls.	m	500		
	<b><u>Extra over galvanised mild steel pipes for galvanised mild steel fittings</u></b>				
472	25mm Fittings	No	250		
473	32mm Bush	No	150		
474	32mm Bend	No	350		
475	32mm Tee	No	200		
476	32mm Reducer	No	150		
477	32mm Reducing bend	No	80		
478	32mm Reducing tee	No	90		
	<b>Carried to collection</b>			R	
	Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL) Moedwil Combined School Phase Two				

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Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 2</u></b>			
	<b><u>BILL NO. 16</u></b>			
	<b><u>GLAZING</u></b>			
	For preambles see "Model Preambles for Trades"			
	<i><b><u>NOTE:</u></b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 150 for JBCC CPAP purposes</i>			
	<b><u>GLAZING TO STEEL WITH PUTTY</u></b>			
	<b><u>6.3 mm Clear float glass</u></b>			
484	Panes exceeding 0,1m2 and not exceeding 0,5m2	m <sup>2</sup>	42	
485	Panes exceeding 0,5m2 and not exceeding 2m2	m <sup>2</sup>	19	
	<b><u>TOPS, SHELVES, DOORS, MIRRORS, ETC.</u></b>			
	<b><u>6mm Quality Polished Glass Mirror: Fix to wall position as shown on site with round nose chromium plated mirror screws.</u></b>			
486	Mirror size 450 x 600mm height 4 times holed for screws	No	66	
487	Mirror size 600 x 900mm height 4 times holed for screws	No	174	
	<b>Carried Forward to Summary of Section No.</b>			R
	Bill No. 16			
	GLAZING			
	Moedwil Combined School Phase Two			



Item No	Quantity	Rate	Amount R
<b><u>SECTION NO. 2</u></b>			
<b><u>BILL NO. 17</u></b>			
<b><u>PAINTWORK</u></b>			
For preambles see "Model Preambles for Trades"			
<i><b>NOTE:</b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 152 for JBCC CPAP purposes</i>			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<b><u>DESCRIPTIONS</u></b>			
Descriptions of paintwork shall be deemed to include for all cutting in			
<b><u>PREPARATORY WORK TO EXISTING WORK</u></b>			
Previously painted plastered surfacesSurfaces 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 surfacesSurfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal			
Previously painted wood surfacesSurfaces 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			
<b><u>PAINT SPECIFICATIONS</u></b>			
All painting shall be done in accordance with "Plascon-Evans" specifications			
<b>Carried to collection</b>			R
Bill No. 17 PAINTWORK Moedwil Combined School Phase Two			

# PAINTWORK, ETC TO NEW WORK

## INTERNAL PLASTER

One coat alkali resistant plaster primer, one coat universal undercoat and three coats acrylic PVA paint on

488	Internal walls	m <sup>2</sup>	13,473
489	Narrow widths	m <sup>2</sup>	2,177

One coat universal undercoat and two coats of double velvet PVA matt finish emulsion paint to

490	Internal walls	m <sup>2</sup>	879
491	Narrow widths	m <sup>2</sup>	142

## EXTERNAL PLASTER

One coat alkali resistant plaster primer, one coat universal undercoat and three coats acrylic PVA paint on

492	External walls	m <sup>2</sup>	50
493	Narrow widths	m <sup>2</sup>	124

## GYPSUM BOARD SURFACES

Primer, undercoat and two coats super acrylic PVA paint to manufacturers detail specification.

494	Ceilings	m <sup>2</sup>	6,614
495	Cornices	m	6,206

## FIBRE-CEMENT SURFACES

Primer, undercoat and two coats wall and all or equal approved applied strictly to manufacturers detail specifications.

496	On fascias and barge boards	m <sup>2</sup>	1,239
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Carried to collection

R

Bill No. 17  
PAINTWORK  
Moedwil Combined School Phase Two

<b><u>One undercoat and two coats acrylic PVA</u></b>					
497	Ceilings	m <sup>2</sup>	2,527		
498	Cornices	m	2,979		
<b><u>ON METAL SURFACES</u></b>					
<b><u>One coat primer, one coat trade undercoat, two coats high gloss enamel (exterior) and two coats non-drip enamel (interior)</u></b>					
499	On door frames	m <sup>2</sup>	147		
500	On doors	m <sup>2</sup>	16		
501	Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m <sup>2</sup>	424		
502	On rails, bars, pipes, etc not exceeding 300mm girth.	m	550		
<b><u>Pre-clean and apply one coat calcium plumbate oil alkyd primer, one undercoat and two full coats oil alkyd high gloss enamel paint on galvanised steel</u></b>					
503	On pipes not exceeding 300mm girth	m	1,500		
<b><u>WOOD SURFACES</u></b>					
<b><u>One coat etch primer, one coat trade undercoat and two coats high gloss enamel paint on exterior</u></b>					
504	Doors.	m <sup>2</sup>	2,986		
<b><u>Two coats clear eggshell polyurethane varnish</u></b>					
505	On skirtings	m	6,062		
<b><u>PAINTWORK, ETC. TO PREVIOUSLY PAINTED WORK ON (PROVISIONAL)</u></b>					
<b><u>FLOATED PLASTER SURFACES WITH</u></b>					
<b>Carried to collection</b>				R	
Bill No. 17 PAINTWORK Moedwil Combined School Phase Two					

506	<p><u>Remove all plaster splashes, loose material and surface contamination by brushing or scraping. Using the appropriate filler, make good to minor defects, which may not be bridged by the paint coating. Allow drying, and ensuring that any powder residues are removed. Apply 1(one) coat of plaster primer, thin primer up to 10% to aid penetration. Apply 1(one) coat of universal undercoat. Undercoat must comply with sabs specification 681. Apply 2(two) coats highly washable enamel paint. Paint must comply with sabs specification 633 grade i.</u></p> <p>On walls</p>	m²	62		
507	<p><b><u>PLASTER BOARD SURFACES WITH</u></b></p> <p><b><u>One "Professional Gypsum and Plaster Primer" and two coats "Professional Contractor's Matt White" paint</u></b></p> <p>Ceilings and cornices</p>	m²	164		
	<p>Carried to collection</p> <p>Bill No. 17 PAINTWORK Moedwil Combined School Phase Two</p>			R	

# METAL SURFACES WITH

Remove any loose and flaking paint. Feather edges, wash surfaces with to remove oil, grease and other contaminants. Rinse thoroughly with fresh water and allow drying, then apply one coat super universal enamel paint on work in sound condition on steel

508	Windows	m <sup>2</sup>	54
509	Door frames	m <sup>2</sup>	28
510	IBR profile troughed roofs (measured on flat)	m <sup>2</sup>	975
511	Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m <sup>2</sup>	54

# WOOD SURFACES WITH

Remove peeling off paint by washing with sugar soap sanding down and applying one wood primer and one coat all Purpose Undercoat, and two coats super universal enamel paint on work

512	Doors	m <sup>2</sup>	102
513	Roof timbers at eaves and verges	m <sup>2</sup>	131

Carried to collection

R

Bill No. 17  
PAINTWORK  
Moedwil Combined School Phase Two

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Bill No	SECTION SUMMARY - BUILDERS WORK	Page No	Amount R
1	ALTERATIONS AND DEMOLITIONS (PROVISIONAL)	57	
2	EARTHWORKS (PROVISIONAL)	62	
3	CONCRETE, FORMWORK AND REINFORCEMENT	69	
4	MASONRY	78	
5	WATERPROOFING	81	
6	ROOF COVERINGS	84	
7	CARPENTRY AND JOINERY	105	
8	FLOOR COVERING, etc	108	
9	CEILINGS ETC	112	
10	IRONMONGERY	120	
11	STRUCTURAL STEELWORK	126	
12	METALWORK	143	
13	PLASTERING	150	
14	TILING	154	
15	PLUMBING AND DRAINAGE (PROVISIONAL)	167	
16	GLAZING	168	
17	PAINTWORK	174	
Carried to Final Summary			R
Moedwil Combined School Phase Two			

Item No	Quantity	Rate	Amount R
<b><u>SECTION NO. 3</u></b>			
<b><u>BILL NO. 1</u></b>			
<b><u>GENERAL SITEWORKS</u></b>			
For preambles see "Model Preambles for Trades"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<b><u>NATURE OF GROUND</u></b>			
<i>The following are typical examples of descriptions of "nature of ground".</i>			
<u>Nature of ground</u>			
The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock".			
Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"..			
A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock".			
<b>Carried to collection</b>			R
Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two			



## **SUB-TERRANEAN WATER**

### User note

*The following are typical examples of descriptions of "subterranean water".*

### Subterranean water

No subterranean water is expected.

## **GENERAL**

Foundations shall not be laid until excavations have been approved of, in writing, by the Principal Agent and/or Civil Engineer and such excavations shall not be covered until any variation has been measured.

### 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 to a suitable dumping site outside the boundary of the site.

### Filling

All filling material to be utilised shall be approved beforehand by the Principal Agent and/or Civil Engineer prior to ordering. A sample of 60 Kg of such proposed fill shall be made available by the contractor, with a 14 days period set aside for carrying out such sample testing.

**Carried to collection**

R

Bill No. 1  
GENERAL SITEWORKS  
Moedwil Combined School Phase Two

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.

User note

*When no information regarding density tests is available the following preamble in respect of testing may be inserted.*

Testing

*Prices for filling are to include for all necessary density tests in accordance with SANS 1200D.*

User Note

Soil poisoning shall be conducted with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and then applied at a rate of not less than 5 litres per square metre. The concentration of the solution shall be in accordance with the manufacturer's instructions, to the approval of the Principal Agent and/or Civil Engineer and undertaken under such supervision.

**BULK EXCAVATION, FILLING, ETC.**

**NOTE:** *Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes*

**Open face excavation in earth over sloping site**

- |   |   |
|---|---|
| 1 | Open face excavation (including widening and depth to be approved by the engineer) to form a platform |
|---|---|

m³	8,043
----	-------

**Extra over bulk excavation in earth for excavation in**

- |   |           |
|---|-----------|
| 2 | Soft rock |
|---|-----------|

m³	807
----	-----

- |   |           |
|---|-----------|
| 3 | Hard rock |
|---|-----------|

m³	403
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**Carried to collection**

R

Bill No. 1  
GENERAL SITEWORKS  
Moedwil Combined School Phase Two

<b><u>Extra over all excavations for carting away</u></b>					
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor 5km from the building site	m <sup>3</sup>	8,068		
<b><u>Risk of collapse of excavations</u></b>					
5	Sides of bulk excavations exceeding 1,5m deep	m <sup>2</sup>	586		
<b><u>Keeping excavations free of water</u></b>					
6	Keeping excavations free of all water other than subterranean water		Item		
<b><u>FILLING, ETC.</u></b>					
<b><u>Earth filling supplied by the contractor compacted to 97% Mod AASHTO density</u></b>					
7	Over site to form platforms	m <sup>3</sup>	1,705		
<b><u>Compaction of surfaces</u></b>					
8	Compaction of ground surface, etc. by wetting and compacting with vibratory roller	m <sup>2</sup>	11,365		
<b><u>Earth filling (MinCBR at 93% Mod AASHTO = 25; Max PI = 10) supplied by the contractor compacted to 93% Mod AASHTO density</u></b>					
9	Selected sub-grade of G7 material in accordance with SABS 1200 DM compacted to 93% Mod AASHTO density in 150mm thick layers.	m <sup>3</sup>	3,994		
10	In-situ rip and recompact filling compacted to 90% Mod AASHTO density	m <sup>3</sup>	3,994		
11	125mm Sub-base layer granular material stabilised to C4 compacted to 95% MOD AASHTO density in 150mm layers	m <sup>3</sup>	3,994		
<b><u>Prescribed density tests on filling</u></b>					
12	"Modified AASHTO Density" test	No	29		
<b>Carried to collection</b>				R	
Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two					

<b><u>Keeping excavations free of water</u></b>					
13	Keeping excavations free of all water other than subterranean water		Item		
<b><u>Mass concrete with a coarse aggregate of 19mm and a minimum compressive strength of 25MPa at 28 days</u></b>					
<b><u>NOTE:</u> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes</b>					
14	Concrete channel 1500mm wide x 100mm thick with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, laid to falls in panels not exceeding 1,8m long with 12mm bitumen impregnated softboard movement joints with exposed edges raked out for a depth of 10mm and filled with bituminous compound including all necessary excavations and formwork.	m	2,514		
15	Extra for fair open end	No	931		
16	Extra for fair stopped end	No	690		
17	Extra for angle intersection	No	595		
18	Extra for T-intersection	No	835		
<b><u>RETAINING STRUCTURES</u></b>					
<b><u>NOTE:</u> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes</b>					
<b><u>Excavation not exceeding 2m deep</u></b>					
19	Trenches	m³	599		
<b><u>Risk of collapse of excavations</u></b>					
20	Sides of trench and hole excavations not exceeding 1,5m deep	m²	1,198		
<b>Carried to collection</b>				R	
Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two					

	<b>Rough formwork to sides</b>			
21	Edges not exceeding 300mm high	m	1,222	
	<b><u>30MPa/19mm reinforced concrete</u></b>			
22	Concrete wall	m³	352	
	<b><u>20MPa/19mm reinforced concrete</u></b>			
23	Strip footings	m³	183	
	<b><u>Steel reinforcement to structural concrete (Provisional)</u></b>			
	<b><u>NOTE:</u></b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes			
24	High yield bars [various]	t	21.03	
	<b><u>INTERLOCKING PLANTER UNITS</u></b>			
	<b><u>NOTE:</u></b> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 110 for JBCC CPAP purposes			
	<b><u>Precast concrete interlocking planter units finished smooth on exposed surfaces</u></b>			
25	Retaining walls with stepped face and curves as required to suit slopes, of 450 x 350 x 225mm high type L300 interlocking units laid with horizontal bed joints to 70 degree slope, including backfilling not exceeding 500mm wide with earth obtained from the excavations and filling units with garden soil lightly tamped as the work proceeds	m²	1,456	
	<b><u>MOVEMENT JOINTS, ETC.</u></b>			
	<b>Carried to collection</b>			R
	Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two			

	<b><u>Movement joints</u></b>				
26	Movement joint not exceeding 300mm high formed of 12mm bitumen impregnated softboard placed vertical in position between concrete stormwater channel and brick walls or concrete aprons, etc including raking out top section 10mm deep and filling with bituminous compound	m	12,411		
	<b><u>REINFORCEMENT</u></b>				
	<b><u>NOTE:</u> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes</b>				
	<b><u>Reinforcement</u></b>				
27	Type 193 fabric reinforcement in concrete surface beds, slabs, channels etc	m <sup>2</sup>	3,616		
	<b><u>SOIL DRAINAGE</u></b>				
	<b><u>NOTE:</u> Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 148 for JBCC CPAP purposes</b>				
	<b><u>Excavations, filling, etc.</u></b>				
28	Excavations not exceeding 2m deep	m <sup>3</sup>	195		
29	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m <sup>3</sup>	19		
30	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m <sup>3</sup>	10		
31	Selected granular filling in bedding under and around pipes	m <sup>3</sup>	185		
32	Backfilling in in-situ material compacted to 90% MOD AASHTO Density	m <sup>3</sup>	185		
33	Risk of collapse not exceeding 1,5m deep	m <sup>2</sup>	1,080		
	<b>Carried to collection</b>			R	
	Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two				

**Socketed, ended uPVC Pipes including couplings, fittings, etc.**

34	110mm Diameter "Class 34" uPVC pipes	m	1,175
35	160mm Diameter "Class 34" uPVC pipes	m	1,195

**TESTING**

36	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect		Item
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**WATER RETICULATION**

**Excavations, filling, etc.**

37	Excavations not exceeding 2m deep	m <sup>3</sup>	3,214
38	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m <sup>3</sup>	306
39	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m <sup>3</sup>	153
40	Selected granular filling in bedding under and around pipes	m <sup>3</sup>	3,214
41	Backfilling in in-situ material compacted to 90% MOD AASHTO Density	m <sup>3</sup>	3,214
42	Risk of collapse not exceeding 1,5m deep	m <sup>2</sup>	10,383

**Socketed, ended uPVC Pipes including couplings, fittings, etc.**

43	40mm Diameter "Class 6" uPVC pipes	m	90
44	50mm Diameter "Class 6" uPVC pipes	m	370
45	63mm Diameter "Class 6" uPVC pipes	m	450
46	90mm Diameter "Class 6" uPVC pipes	m	350

Carried to collection

R

Bill No. 1  
GENERAL SITEWORKS  
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<b><u>Sundry fittings</u></b>					
47	40mm Diameter bend	No	30		
48	63mm Diameter bend	No	650		
49	90mm Diameter bend	No	467		
50	63mm x 50mm Y junction	No	487		
51	90mm Diameter tee	No	480		
<b><u>TAPS, VALVES, ETC.</u></b>					
52	Chrome plated pillar spigot with overarm swivel outlet.	No	16		
<b><u>WATER TANK</u></b>					
53	4.88 x 4.88 x 3.66m high 87.16 m3 capacity Water tank with wall thickness 4.5mm and steel frames and panels to be hot dip galvanised with zinc (essential for corrosion protection) Tank to be placed on reinforced concrete ground beams as per manufacturer's specification (Engineer's specification)			Item	
<b><u>TESTING</u></b>					
54	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect			Item	
<b><u>INSPECTION CHAMBERS</u></b>					
<b><u>Inspection chamber of concrete bottom, brick walls, concrete slab, channels, channel junctions, channel bends, internal plaster and 450 x 600mm heavy duty "type C" storm water grating and frame</u></b>					
55	Inspection chamber 1 070 x 880mm exceeding 1 000mm and not exceeding 1 250mm deep internally	No	5		
56	560mm Diameter VP4L Heavy-duty lockable single-seal manhole cover and frame	No	5		
<b>Carried to collection</b>				R	
Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two					



57	450mm Diameter precast concrete pipe	m	40		
58	1300mm Diameter 250 x 500 x 1000mm Precast concrete chamber rings with polypropylene with steel reinforcement overall length 185mm with tail piece 70mm x 25mm diameter step iron. SABS 1289 specification	No	10		
<b><u>STORMWATER DRAINAGE</u></b>					
<b><u>Excavations, filling, etc.</u></b>					
59	Excavations not exceeding 2m deep	m <sup>3</sup>	437		
60	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m <sup>3</sup>	44		
61	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m <sup>3</sup>	22		
62	Selected granular filling in bedding under and around pipes	m <sup>3</sup>	47		
63	Backfilling in in-situ material compacted to 90% MOD AASHTO Density	m <sup>3</sup>	178		
64	Risk of collapse not exceeding 1,5m deep	m <sup>2</sup>	318		
<b><u>Precast concrete stormwater pipes</u></b>					
65	825mm Diameter precast concrete pipe	m	234		
<b><u>STORMWATER DRAINAGE SUNDRIES</u></b>					
66	300mm wide mentis steel grating	m	24		
<b><u>TESTING</u></b>					
67	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect			Item	
<b><u>COVERED WALKWAYS AND DRYING YARD</u></b>					
<b>Carried to collection</b>				R	
Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two					

# PAVING TO WALKWAYS AND DRYING YARDS

## Excavation in earth not exceeding 2m deep

68	Reduced levels under paving	m <sup>3</sup>	931
69	Holes	m <sup>3</sup>	18

## Extra over bulk excavation in earth for excavation in (Provisional)

70	Soft rock	m <sup>3</sup>	28
71	Hard rock	m <sup>3</sup>	14

## FILLING, ETC.

### Earth filling supplied by the contractor under pavings etc

72	150mm Base layer granular material stabilised to C4 compacted to 97% MOD AASHTO density	m <sup>3</sup>	465
73	150mm Sub-grade layer of G6 material compacted to 95% MOD AASHTO density	m <sup>3</sup>	465
74	150mm Sub-grade layer of G7 material compacted to 93% MOD AASHTO density	m <sup>3</sup>	465
75	150mm Layer in-situ material compacted to 90% MOD AASHTO density	m <sup>3</sup>	605

### Sand filling

76	50mm thick dry, clean, washed riversand layer evenly spread	m <sup>2</sup>	3,103
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### Compaction of surfaces

77	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m <sup>2</sup>	3,103
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Carried to collection

R

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GENERAL SITEWORKS  
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78	<u>Prescribed density tests on filling</u> "Modified AASHTO Density" test	No	17	
	<u>SOIL POISONING</u>			
	<u>Weed killer</u>			
79	Under pavings, etc. and sprayed over previously wetted ground	m²	3,103	
	<u>ROOF COVERINGS, ETC.</u>			
	<u>0.6mm Thick concealed fixing roofing sheets manufactured from roll-formed from certified steel complying with ISQ 550 (3T). The profile shall have three trapezoidal ribs at 203mm centres giving a nett cover of 406mm. The rib height shall be 41mm and provide capillary breaks. The male rib shall have spurs 285mm centres to ensure a positive double interlocking action at side-laps. Each pan shall incorporate two stiffener ribs. Profiled roof sheets to be coated on both sides with Z275 galvanising (commercial quality) to SABS 935 or later such as flashings and eave closers in strict compliance to manufacturer's instructions (Straight or curved as in Drawing)</u>			
80	Flat roof coverings with pitches not exceeding 5 degrees	m²	2,183	
	<u>STRUCTURAL STEELWORK (COVERED WALKWAY)</u>			
	<u>Descriptions</u>			
	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			
	<p style="text-align: right;"><b>Carried to collection</b></p>			R
	Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two			

Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete. Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork.

**Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to ?**

81	76mm diameter CHS columns	t	28.92
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82	300 x 300x 6mm M/S Plate Welded to and bolted to RC Footing to Engineer's Details	t	1.73
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**Welded beams in single lengths with flat section bearer and connection plates bolted to ? columns**

83	76mm diameter x 6mm CHS section beams	t	23.14
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**Bolts to columns, beams, etc**

84	High tensile bolts	t	11.56
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**PURLINS, GIRTS, BRACING, ETC**

**Purlins and girts bolted to steel**

85	100 x 50 x 20 x 2mm Lipped channel section purlins	t	34.70
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86	100 x 50 x 20 x 3mm Lipped channel section rafters	t	11.56
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**TESTS**

**Weld testing**

87	Welding tests	No	25
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**GUTTERS AND RAINWATER PIPES**

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

Carried to collection

R

Bill No. 1  
GENERAL SITEWORKS  
Moedwil Combined School Phase Two

**Seamless Aluminium Industrial Guttes**

88	150 x 140mm x 0.8mm thick Seamless Aluminium Industrial eaves gutters fixed tonapex of monopitch structural steel roof trusses	m	2,910
89	Extra over for stopped end	No	450
90	Extra over for angle	No	450
91	140mm diameter, 0.8mm thick Aluminium industrial rainwater downpipe fixed to walls.	m	1,818
92	Extra over for bend	No	380
93	Extra over for shoe	No	233
94	Extra over for eaves or plinth offset	No	233

**FENCING DETAIL TO DRYING YARD**

**Invisible Wall Fencing System**

95	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 2120mm high with 90 degree top apertures including maintenance-free Everlast coating system	m	391
96	1800 x 900mm wide single gate consisting of 50 x 2.8mm tubular frames with bracing as shown complete with 4 hinges bolts and 2 barrel bolt including 10mm diameter steel rod welded to gate for fixing of Anti-cut, Anti-climb, Anti theft	No	10
97	100 x 100mm Square hollow section steel column	No	166
98	900mm Wide x 2100mm high overall swing gate including posts, hinges, hasp and staple, etc.	No	2

**PAVING**

**60mm Coloured Double "Zig Zag" interlocking roadstone paving**

99	Paving to walkways laid to falls and cross falls.	m <sup>2</sup>	3,842
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**Carried to collection**

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Bill No. 1  
GENERAL SITEWORKS  
Moedwil Combined School Phase Two

100	Extra for edge blocks	m	165	
	<b><u>WASHING LINE</u></b>			
	<b><u>Excavation in earth not exceeding 2m deep</u></b>			
101	Holes	m <sup>3</sup>	13	
	<b><u>Risk of collapse of excavations</u></b>			
102	Risk of collapse not exceeding 1,5m deep	m <sup>2</sup>	134	
	<b><u>Extra over all excavations for carting away</u></b>			
103	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	13	
	<b><u>Keeping excavations free of water</u></b>			
104	Keeping excavations free of all water other than subterranean water		Item	
	<b><u>25MPa/19mm Unreinforced concrete</u></b>			
105	Bases	m <sup>3</sup>	28	
	<b><u>Washing line and post</u></b>			
106	76.2mm Diameter x 3mm thick mild steel tubing column	No	140	
107	76.2mm Diameter x 3mm thick mild steel tubing bar with half sphere end caps	No	140	
108	76.2mm Diameter x 3mm thick mild steel tubing bracing	No	140	
109	3mm diameter stainless steel line, fixed tight to the T-bars	m	679	
110	50mm Diameter x 2mm thick mild steel tubing bar diagonal support	No	280	
	<b><u>Filling supplied by the contractor</u></b>			
111	150mm Base layer of G6 material compacted to 95% Mod AASHTO density	m <sup>3</sup>	14	
	<b><u>PAVING TO ROADWORKS</u></b>			
	Carried to collection			R
	Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two			

	<b><u>80mm Coloured Double "Zig Zag" interlocking roadstone paving</u></b>				
112	Paving to roadwork laid to falls and cross falls.	m <sup>2</sup>	2,171		
113	Circular paving to sidewalks etc to falls	m <sup>2</sup>	1,142		
114	Extra for edge blocks	m	651		
115	Circular cutting	m	12		
	<b><u>PRECAST CONCRETE</u></b>				
	<b><u>Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing</u></b>				
116	300 x 150mm High kerbs (SABS 927 fig 8) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc	m	1,580		
	<b><u>ROAD MARKINGS</u></b>				
	<b><u>Road markings with non-reflectorised paint applied at nominal rate of 0.42 l/m<sup>2</sup> (SANS 1200MM 8.4.1)</u></b>				
117	100mm White lines (broken or unbroken)	km	2.80		
118	100mm Yellow lines (broken or unbroken)	km	1.24		
119	300mm White lines (broken or unbroken)	km	3.01		
	<b><u>Road signs</u></b>				
120	Standard "STOP" sign with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc	No	6		
121	Standard "PEDESTRIAN" sign with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc	No	4		
122	Standard "SPEED LIMIT" sign with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc	No	4		
	<b>Carried to collection</b>			R	
	Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two				

123	1125 x 675mm "DISABLED PARKING" sign.	No	4		
124	900mm "YIELD" sign.	No	6		
<b><u>STRUCTURAL STEELWORK (COVERED PARKING)</u></b>					
<b><u>Descriptions</u></b>					
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					
Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete. Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork.					
<b><u>Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to ?</u></b>					
125	200mm diameter CHS columns	t	1.75		
126	300 x 300x 6mm M/S Plate Welded to and bolted to RC Footing to Engineer's Details	t	0.11		
<b><u>Welded beams in single lengths with flat section bearer and connection plates bolted to ? columns</u></b>					
127	100x 100mm x 3mm RHS section beams	t	3.50		
<b><u>Bolts to columns, beams, etc</u></b>					
128	High tensile bolts	t	1.40		
<b><u>PURLINS, GIRTS, BRACING, ETC.</u></b>					
Carried to collection				R	
Bill No. 1 GENERAL SITEWORKS Moedwil Combined School Phase Two					



[illegible]

[illegible]

Item No	Quantity	Rate	Amount R
<p><b><u>SECTION NO. 3</u></b></p> <p><b><u>BILL NO. 2</u></b></p> <p><b><u>BOUNDARY WALL</u></b></p> <p>For preambles see "Model Preambles for Trades"</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>NATURE OF GROUND</u></b></p> <p><u>User Note</u></p> <p><i>The following are typical examples of descriptions of "nature of ground".</i></p> <p><u>Nature of ground</u></p> <p>The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".</p> <p>The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".</p> <p>The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock".</p> <p>Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"..</p>			
<p><b>Carried to collection</b></p>			R
<p>Bill No. 2 BOUNDARY WALL Moedwil Combined School Phase Two</p>			

A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock".

### **SUB-TERRANEAN WATER**

#### **User note**

*The following are typical examples of descriptions of "subterranean water".*

#### **Subterranean water**

No subterranean water is expected.

### **GENERAL**

Foundations shall not be laid until excavations have been approved of, in writing, by the Principal Agent and/or Civil Engineer and such excavations shall not be covered until any variation has been measured.

#### **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 to a suitable dumping site outside the boundary of the site.

**Carried to collection**

Bill No. 2  
BOUNDARY WALL  
Moedwil Combined School Phase Two

R

Filling

All filling material to be utilised shall be approved beforehand by the Principal Agent and/or Civil Engineer prior to ordering. A sample of 60 Kg of such proposed fill shall be made available by the contractor, with a 14 days period set aside for carrying out such sample testing.

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.

User note

*When no information regarding density tests is available the following preamble in respect of testing may be inserted.*

Testing

*Prices for filling are to include for all necessary density tests in accordance with SANS 1200D.*

User Note

Soil poisoning shall be conducted with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and then applied at a rate of not less than 5 litres per square metre. The concentration of the solution shall be in accordance with the manufacturer's instructions, to the approval of the Principal Agent and/or Civil Engineer and undertaken under such supervision.

**DEMOLITIONS**

**REMOVAL OF EXISTING WORK**

**Taking down and removing**

134	Removal of existing barber wire and mesh fence	m	3,966		
135	Removal of existing palisade fence and make good to receive new Invisible wall fence (Invisible wall fence measured elsewhere)	m	530		

**Carried to collection**

R

Bill No. 2  
BOUNDARY WALL  
Moedwil Combined School Phase Two

# **EARTHWORKS (PROVISIONAL)**

## **SITE CLEARANCE ETC**

### **Site clearance**

136	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m <sup>2</sup>	4,950
137	Stripping average 150mm thick layer topsoil plus 200mm in-situ material and stockpile on site.	m <sup>2</sup>	4,950

## **REMOVAL OF TREES ETC**

### **Taking out and removing, grubbing up roots and filling in holes**

138	Tree stump exceeding 200mm and not exceeding 500mm girth	No	2
139	Tree stump exceeding 500mm and not exceeding 1000mm girth	No	3
140	Tree stump exceeding 1000mm and not exceeding 1500mm girth	No	1
141	Tree stump exceeding 1500mm and not exceeding 2000mm girth	No	2

## **EXCAVATION, FILLING, ETC**

### **Excavation in earth not exceeding 2m deep**

142	Holes	m <sup>3</sup>	32
143	Trenches	m <sup>3</sup>	211

### **Extra over trench excavation in earth for excavation in**

144	Soft rock	m <sup>3</sup>	21
145	Hard rock	m <sup>3</sup>	11

**Carried to collection**

**R**

Bill No. 2  
BOUNDARY WALL  
Moedwil Combined School Phase Two

	<b><u>Extra over all excavations for carting away</u></b>				
146	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	1,733		
	<b><u>Extra over all excavations for carting away</u></b>				
147	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	6		
	<b><u>Risk of collapse of excavations</u></b>				
148	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	1,405		
	<b><u>Keeping excavations free of water</u></b>				
149	Keeping excavations free of all water other than subterranean water		Item		
	<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u></b>				
150	Backfilling to trenches, holes, etc	m <sup>3</sup>	70		
	<b><u>Prescribed density tests on filling</u></b>				
151	"Modified AASHTO Density" test	No	1		
	<b><u>SOIL POISONING</u></b>				
	<b><u>Soil insecticide to surfaces and appropriate soil poisoning certificate SANS 0124 to be provided.</u></b>				
152	To bottoms and sides of trenches etc	m <sup>2</sup>	1,103		
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b>				
	<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<b><u>10MPa/19mm concrete</u></b>				
153	Surface blinding under footings and bases	m <sup>3</sup>	17		
	<b>Carried to collection</b>			R	
	Bill No. 2 BOUNDARY WALL Moedwil Combined School Phase Two				

<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>					
<b><u>25MPa/20mm concrete</u></b>					
154	Strip footings	m³	224		
155	Bases	m³	6		
<b><u>TEST CUBES (PROVISIONAL)</u></b>					
156	Allow for making set of three 150 x 150 x 150mm test cubes.	Sets	6		
<b><u>PRECAST CONCRETE</u></b>					
<b><u>PRECAST PIER CAP</u></b>					
<b><u>Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing</u></b>					
157	475 x 475 x 220mm Precast pyramid pier cap	No	397		
<b><u>MASONRY</u></b>					
<b><u>FOUNDATIONS</u></b>					
<b><u>Brickwork of NFPE bricks (17 MPa nominal compressive strength) in class I mortar in loadbearing walls, etc.</u></b>					
158	460 x 460 x 1700mm High brick columns of one brick wall composition	No	397		
159	One brick walls	m²	264		
<b><u>Brickwork reinforcement</u></b>					
160	150mm Wide reinforcement built in horizontally	m	164		
<b><u>SUPERSTRUCTURE</u></b>					
<b><u>Brickwork of NFX bricks in class II mortar</u></b>					
161	Piers	m³	153		
<b>Carried to collection</b>				R	
Bill No. 2 BOUNDARY WALL Moedwil Combined School Phase Two					





	<u>Type 1 Invisible wall fence</u>				
168	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 1775mm high with 90 degree top apertures including maintenance-free Everlast coating system and 100mm high toughened steel castle spikes	m	530		
169	100 x 100mm Square hollow section steel column	No	417		
170	1531mm long x 2400mm overall height Invisible wall boundary Gate with 100mm high toughened steel castle spikes including rail, bolts,etc.	No	3		
	<u>Type 2 Invisible wall fence</u>				
171	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 1775mm high with 90 degree top apertures including maintenance-free Everlast coating system and 100mm high toughened steel castle spikes	m	479		
172	100 x 100mm Square hollow section steel column	No	377		
	<u>Type 3 Invisible wall fence</u>				
173	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 2120mm high with 90 degree top apertures including maintenance-free Everlast coating system and 100mm high toughened steel castle spikes	m	2,341		
174	100 x 100mm Square hollow section steel column	No	710		
175	1531mm long x 2400mm overall height Invisible wall fence boundary Gate with 100mm high toughened steel castle spikes including rail, bolts,etc.	No	5		
176	5416 x 2400mm overall height Invisible wall fence boundary Gate with 100mm high toughened steel castle spikes including rail, bolts,etc. and boom as per Electrical Engineer's specification	No	2		
	<b>Carried to collection</b>			R	
	Bill No. 2 BOUNDARY WALL Moedwil Combined School Phase Two				

**SIGNAGE BOARD****School name board**

- 177 6mm Tempered hardboard nailed to 70x50mm and 40x50mm frame work including 1,6mm thick stainless steel flat rolled sheet wrapped around 70x50mm frame work fixed with concealed fixing pins behind the frame to Architect's approval. See drawing **MCS-PH2-SNB-101**

**No****2****Carried to collection****R**

Bill No. 2  
 BOUNDARY WALL  
 Moedwil Combined School Phase Two

Section No. 3

Bill No. 2

BOUNDARY WALL

**COLLECTION PAGE**

	Page No	Amount R
Total Brought Forward from Page No.	195	
Total Brought Forward from Page No.	196	
Total Brought Forward from Page No.	197	
Total Brought Forward from Page No.	198	
Total Brought Forward from Page No.	199	
Total Brought Forward from Page No.	200	
Total Brought Forward from Page No.	201	
Total Brought Forward from Page No.	202	
Total Brought Forward from Page No.	203	

**Carried Forward to Summary of Section No.**

R

Bill No. 2  
BOUNDARY WALL  
Moedwil Combined School Phase Two

Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 3</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>PUMP HOUSE AND REFUSE BAY</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>NATURE OF GROUND</u></b>			
	<i>The following are typical examples of descriptions of "nature of ground".</i>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock".			
	Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"..			
	A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock".			
	<b>Carried to collection</b>		R	
	Bill No. 3 PUMP HOUSE AND REFUSE BAY Moedwil Combined School Phase Two			

## **SUB-TERRANEAN WATER**

### User note

*The following are typical examples of descriptions of "subterranean water".*

### Subterranean water

No subterranean water is expected.

## **GENERAL**

Foundations shall not be laid until excavations have been approved of, in writing, by the Principal Agent and/or Civil Engineer and such excavations shall not be covered until any variation has been measured.

### 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 to a suitable dumping site outside the boundary of the site.

### Filling

All filling material to be utilised shall be approved beforehand by the Principal Agent and/or Civil Engineer prior to ordering. A sample of 60 Kg of such proposed fill shall be made available by the contractor, with a 14 days period set aside for carrying out such sample testing.

**Carried to collection**

R

Bill No. 3  
PUMP HOUSE AND REFUSE BAY  
Moedwil Combined School Phase Two

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.

User note

*When no information regarding density tests is available the following preamble in respect of testing may be inserted.*

Testing

*Prices for filling are to include for all necessary density tests in accordance with SANS 1200D.*

User Note

Soil poisoning shall be conducted with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and then applied at a rate of not less than 5 litres per square metre. The concentration of the solution shall be in accordance with the manufacturer's instructions, to the approval of the Principal Agent and/or Civil Engineer and undertaken under such supervision.

**EARTHWORKS**

**EXCAVATION, FILLING, ETC.**

**Excavation in earth not exceeding 2m deep**

178	Trenches	m <sup>3</sup>	8
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**Extra over trench excavation in earth for excavation in**

179	Soft rock	m <sup>3</sup>	1
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180	Hard rock	m <sup>3</sup>	0.4
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**Extra over all excavations for carting away**

181	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	8
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**Carried to collection**

R

Bill No. 3  
PUMP HOUSE AND REFUSE BAY  
Moedwil Combined School Phase Two

	<b><u>Risk of collapse of excavations</u></b>				
182	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	81		
	<b><u>Keeping excavations free of water</u></b>				
183	Keeping excavations free of all water other than subterranean water		Item		
	<b><u>FILLING, ETC.</u></b>				
	<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u></b>				
184	Backfilling to trenches, holes, etc	m <sup>3</sup>	5		
	<b><u>Earth filling G7 (MinCBR at 93% Mod AASHTO = 25; Max PI = 10) supplied by the contractor compacted to 93% Mod AASHTO density</u></b>				
185	Under floors, steps, pavings, etc	m <sup>3</sup>	7		
	<b><u>Compaction of surfaces</u></b>				
186	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m <sup>2</sup>	35		
	<b><u>Prescribed density tests on filling</u></b>				
187	"Modified AASHTO Density" test	No	3		
	<b><u>SOIL POISONING</u></b>				
	<b><u>Soil insecticide to surfaces and appropriate soil poisoning certificate SANS 0124 to be provided.</u></b>				
188	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m <sup>2</sup>	35		
189	To bottoms and sides of trenches etc	m <sup>2</sup>	91		
	<b>Carried to collection</b>			R	
	Bill No. 3 PUMP HOUSE AND REFUSE BAY Moedwil Combined School Phase Two				



# **CONCRETE, FORMWORK AND REINFORCEMENT**

## **REINFORCED CONCRETE**

### **30MPa/19mm concrete**

190	Slabs	m³	4
191	Strip footings	m³	8

## **TEST CUBES**

192	Allow for making set of three 150 x 150 x 150mm test cubes.	Sets	6.2
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## **CONCRETE SUNDRIES**

### **Finishing top surfaces of concrete smooth with a wood float**

193	Ramps, ramp slabs, etc. to falls	m²	35
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## **FORMWORK**

**NOTE:** Work Group No 111 for JBCC CPAP purposes

## **ROUGH FORMWORK (DEGREE OF ACCURACY II)**

### **Rough formwork to sides**

194	Strip footings (Provisional)	m²	81
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## **MOVEMENT JOINTS ETC**

### **Expansion joints with bitumen-impregnated softboard between vertical concrete and brick surfaces**

195	10mm Joints not exceeding 300mm high or wide	m	34
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Carried to collection

R

Bill No. 3  
PUMP HOUSE AND REFUSE BAY  
Moedwil Combined School Phase Two

# **REINFORCEMENT**

**NOTE:** Work Group No 111 for JBCC CPAP purposes

## **Mild steel reinforcement to structural concrete work**

196	8mm Diameter bars	t	0.54
197	12mm Diameter bars	t	0.75

## **Fabric reinforcement**

198	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m <sup>2</sup>	35
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# **MASONRY**

## **FOUNDATIONS**

**Brickwork of NFPE bricks (17 MPa nominal compressive strength) in class I mortar in loadbearing walls, etc.**

199	One brick walls	m <sup>2</sup>	5
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## **SUPERSTRUCTURE**

### **Brickwork of NFX bricks in class II mortar**

200	Half brick walls in beamfilling	m <sup>2</sup>	2
201	One brick walls in beamfilling	m <sup>2</sup>	1
202	One brick walls	m <sup>2</sup>	80

## **BRICKWORK SUNDRIES**

### **Miscellaneous**

203	Fill top of pressed steel door frame not exceeding 300mm girth with cement mortar and trowel smooth	m	5
204	150 x 150mm Weep holes to brickwork	No	8

Carried to collection

R

Bill No. 3  
PUMP HOUSE AND REFUSE BAY  
Moedwil Combined School Phase Two

	<b><u>Brickwork reinforcement</u></b>				
205	75mm Wide reinforcement built in horizontally	m	2		
206	150mm Wide reinforcement built in horizontally	m	49		
	<b><u>Concrete prestressed fabricated lintels</u></b>				
207	110 x 70mm Lintels in lengths not exceeding 3m	m	3		
	<b><u>Galvanised hoop iron cramps, ties, etc.</u></b>				
208	30 x 1.6mm Roof tie 1.5m long with one end fixed to timber and other end built into brickwork.	No	8		
	<b><u>Bagging of 1:3 cement and sand mixture</u></b>				
209	On brick walls	m <sup>2</sup>	79		
	<b><u>FACE BRICKWORK</u></b>				
	<b><u>Topaz Travertine FBS Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.</u></b>				
210	Extra over brickwork for face brickwork	m <sup>2</sup>	161		
211	Extra over brickwork for breeze wall face brickwork	m <sup>2</sup>	3		
	<b><u>Brick-on-edge header course copings, sills, etc. of Face bricks (PC Amount R4000/1000) pointed with recessed joints on all exposed faces</u></b>				
212	Brick-on-edge coping to one brick wall.	m	32		
213	Extra over brickwork for brick-on-edge header course lintel	m	1		
	<b><u>WATERPROOFING</u></b>				
	<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>				
	<b>Carried to collection</b>			R	
	Bill No. 3 PUMP HOUSE AND REFUSE BAY Moedwil Combined School Phase Two				

	<u>One layer of 375 micron black embossed polyethylene damp-proof course (SANS 952-1985 Type B)</u>				
214	In walls	m <sup>2</sup>	12		
	<u>One layer of 250 micron thick gunplus usb green damp-proof membrane (SANS 952-1985 Type C) sealed at laps with PVC self-adhesive tape</u>				
215	Under surface beds	m <sup>2</sup>	35		
	<b><u>ROOF COVERINGS ETC</u></b>				
	<b><u>EMBOSSSED PROFILED ROOFING</u></b>				
	<u>0,6mm Thick IBR roof sheeting with pre-painted finish and accessories fixed to timber purlins or rails in strict accordance with manufacturer's specifications</u>				
216	Roof coverings with pitches not exceeding 5 degrees	m <sup>2</sup>	16		
	<b><u>ROOF AND WALL INSULATION</u></b>				
	<u>Lightweight industrial grade reinforced aluminium foil based insulation</u>				
217	50mm Non-combustible light weight industrial fibre glass Insulation material, with reinforced aluminium foil faced finish laid taut over purlins and fixed concurrent with roof covering, with galvanized steel straining wires at 300mm centres and tied down top and bottom after tensioning with galvanized hoop iron ties.	m <sup>2</sup>	16		
	<b><u>CARPENTRY AND JOINERY</u></b>				
	<b><u>ROOFS, ETC</u></b>				
	<b>Carried to collection</b>			R	
	Bill No. 3 PUMP HOUSE AND REFUSE BAY Moedwil Combined School Phase Two				

<b><u>Plate nailed timber roof truss construction</u></b>					
218	Roof construction to mono pitched roof with no gable ends, 2400mm x 3190mm high overall with 300mm overhang on both sides including trusses at 5 degrees, spaced at minimum 600mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. <b>(PUMP HOUSE)</b>	No	1		
<b><u>SUNDRY ROOF TIMBERS:</u></b>					
<b><u>Sawn softwood</u></b>					
219	38 x 114mm Wall plate.	m	11		
220	50 x 76mm Purlin SA pine purlins spaced as shown at maximum 1200mm centres.	m	13		
221	76 x 76mm Splayed purlins.	m	9		
<b><u>WOOD PRESERVATIVE:</u></b>					
222	Two coats creosote on sawn and wrought timbers.	m <sup>2</sup>	18		
<b><u>EAVES, VERGES, ETC</u></b>					
<b><u>Pressed fibre cement</u></b>					
223	10 x 225mm Fascia and barge board including galvanised steel H-profile jointing strips screwed to rafter ends and 114 x 38mm SA pine cleats	m	16		
<b><u>METALWORK</u></b>					
<b><u>STEEL SCREENS, GATES, ETC.</u></b>					
<b><u>Steel security gates consisting of 10 x 10mm mild steel bars placed at 100mm centres at 45 degrees angles, screens etc. installed complete including subframes, welded, etc</u></b>					
224	Steel security gate size 900 x 2100mm including hinges <b>(G01)</b>	No	1		
<b>Carried to collection</b>				R	
Bill No. 3 PUMP HOUSE AND REFUSE BAY Moedwil Combined School Phase Two					

225	815 x 2032 mm overall height Robmeg transformer unit door in Grey oxide primer finish with 3 x 100mm heavy duty brass hinges and mild steel louvre (Code: Type AV) in accordance with the manufacturer's recommendations ( <b>Drawing: MCS-PH2-PMH-101</b> )	No	1		
<b><u>SECURITY FENCING DETAIL</u></b>					
<b><u>Invisible Wall Fencing System</u></b>					
226	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 2120mm high with 90 degree top apertures including maintenance-free Everlast coating system and devilfork trim to top of fence	m	32		
227	100 x 100mm Square hollow section steel column	No	4		
228	100 x 100mm Square hollow section corner steel column	No	4		
229	1500mm Wide x 1800mm high overall swing gate including posts, hinges, hasp and staple, etc.	No	1		
230	4 Strands of galvanized, twisted double strand 1.6mm thick wire with 3 barbs incorporated in twist every 150mm fixed to extended post with 2.5mm galvanized binding wire, mechanically strained between straining posts and/or gate and corner posts	m	32		
<b><u>STRUCTURAL STEELWORK</u></b>					
<b><u>STEEL COLUMNS AND BEAMS</u></b>					
<b><u>Structural steelwork</u></b>					
231	50 x 50 x 3mm RHS frame bolted to the brick wall inclusive of all bolts	t	0.14		
232	50 x 50 x 3mm RHS intermediate frames welded to the perimeter frame	t	0.15		
233	50 x 50 x 3mm galvanised "Weldmesh" installed above RHS beams and wrapped around the perimeter frames	m²	16		
<b><u>PLASTERING</u></b>					
<b>Carried to collection</b>				R	
Bill No. 3 PUMP HOUSE AND REFUSE BAY Moedwil Combined School Phase Two					

<b><u>SCREEDS</u></b>					
<b><u>Screeds on concrete</u></b>					
234	25mm Thick on floors and landings	m <sup>2</sup>	25		
<b><u>GRANOLITHIC</u></b>					
<b><u>Untinted granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve (Colour, pattern and aggregate size to architects approval).</u></b>					
235	30mm Thick on floors.	m <sup>2</sup>	25		
<b><u>PAINTWORK, ETC TO NEW WORK</u></b>					
<b><u>FIBRE-CEMENT SURFACES</u></b>					
<b><u>Primer, undercoat and two coats wall and all or equal approved applied strictly to manufacturers detail specifications.</u></b>					
236	On fascias and barge boards	m <sup>2</sup>	7		
<b><u>ON METAL SURFACES</u></b>					
<b><u>One coat primer, one coat trade undercoat, two coats high gloss enamel (exterior) and two coats non-drip enamel (interior)</u></b>					
237	On door frames	m <sup>2</sup>	2		
238	On doors	m <sup>2</sup>	4		
<b>Carried to collection</b>				R	
Bill No. 3 PUMP HOUSE AND REFUSE BAY Moedwil Combined School Phase Two					

[illegible]



Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 3</u></b>			
	<b><u>BILL NO. 4</u></b>			
	<b><u>BUS AND TAXI DROP OFF</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>NATURE OF GROUND</u></b>			
	<i>The following are typical examples of descriptions of "nature of ground".</i>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock".			
	Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"..			
	A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock".			
	<b>Carried to collection</b>		R	
	Bill No. 4 BUS AND TAXI DROP OFF Moedwil Combined School Phase Two			

## **SUB-TERRANEAN WATER**

### User note

*The following are typical examples of descriptions of "subterranean water".*

### Subterranean water

No subterranean water is expected.

## **GENERAL**

Foundations shall not be laid until excavations have been approved of, in writing, by the Principal Agent and/or Civil Engineer and such excavations shall not be covered until any variation has been measured.

### 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 to a suitable dumping site outside the boundary of the site.

### Filling

All filling material to be utilised shall be approved beforehand by the Principal Agent and/or Civil Engineer prior to ordering. A sample of 60 Kg of such proposed fill shall be made available by the contractor, with a 14 days period set aside for carrying out such sample testing.

**Carried to collection**

R

Bill No. 4  
BUS AND TAXI DROP OFF  
Moedwil Combined School Phase Two

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.

User note

*When no information regarding density tests is available the following preamble in respect of testing may be inserted.*

Testing

*Prices for filling are to include for all necessary density tests in accordance with SANS 1200D.*

User Note

Soil poisoning shall be conducted with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and then applied at a rate of not less than 5 litres per square metre. The concentration of the solution shall be in accordance with the manufacturer's instructions, to the approval of the Principal Agent and/or Civil Engineer and undertaken under such supervision.

**EARTHWORKS**

**EXCAVATION, FILLING, ETC.**

**Excavation in earth not exceeding 2m deep**

239	Trenches	m <sup>3</sup>	17
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240	Holes	m <sup>3</sup>	9
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**Extra over trench excavation in earth for excavation in**

241	Soft rock	m <sup>3</sup>	3
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242	Hard rock	m <sup>3</sup>	1
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**Carried to collection**

R

Bill No. 4  
BUS AND TAXI DROP OFF  
Moedwil Combined School Phase Two

<b><u>Extra over all excavations for carting away</u></b>			
243	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	12
<b><u>Risk of collapse of excavations</u></b>			
244	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	89
<b><u>Keeping excavations free of water</u></b>			
245	Keeping excavations free of all water other than subterranean water	Item	
<b><u>FILLING, ETC.</u></b>			
<b><u>Earth filling G7 (MinCBR at 93% Mod AASHTO = 25; Max PI = 10) supplied by the contractor compacted to 93% Mod AASHTO density</u></b>			
246	Under floors, steps, pavings, etc	m <sup>3</sup>	14
<b><u>Earth filling supplied by the contractor under pavings etc</u></b>			
247	150mm Base layer granular material stabilised to C4 compacted to 97% MOD AASHTO density	m <sup>3</sup>	11
<b><u>Sand filling</u></b>			
248	50mm thick dry, clean, washed riversand layer evenly spread	m <sup>2</sup>	72
<b><u>Compaction of surfaces</u></b>			
249	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m <sup>2</sup>	72
<b><u>Prescribed density tests on filling</u></b>			
250	"Modified AASHTO Density" test	No	2
<b><u>SOIL POISONING</u></b>			
<b>Carried to collection</b>			
Bill No. 4 BUS AND TAXI DROP OFF Moedwil Combined School Phase Two			

R

	<u><b>Soil insecticide to surfaces and appropriate soil poisoning certificate SANS 0124 to be provided.</b></u>			
251	To bottoms and sides of trenches etc	m <sup>2</sup>	81	
	<u><b>Weed killer</b></u>			
252	Under pavings, etc and sprayed over previously wetted ground	m <sup>2</sup>	72	
	<u><b>CONCRETE, FORMWORKAND REINFORCEMENT</b></u>			
	<u><b>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</b></u>			
	<u><b>10MPa/19mm concrete</b></u>			
253	Surface blinding under footings and bases	m <sup>3</sup>	1	
	<u><b>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</b></u>			
	<u><b>25MPa/20mm concrete</b></u>			
254	Strip footings	m <sup>3</sup>	4	
255	Column bases	m <sup>3</sup>	4	
256	Columns	m <sup>3</sup>	1	
	<u><b>TEST CUBES (PROVISIONAL)</b></u>			
257	Allow for making set of three 150 x 150 x 150mm test cubes.	Sets	1	
	<u><b>FORMWORK</b></u>			
	<u><b>NOTE:</b></u> Work Group No 111 for JBCC CPAP purposes			
	<u><b>ROUGH FORMWORK (DEGREE OF ACCURACY II)</b></u>			
	<b>Carried to collection</b>			R
	Bill No. 4 BUS AND TAXI DROP OFF Moedwil Combined School Phase Two			

	<b><u>Rough formwork to sides</u></b>				
258	Strip footings (Provisional)	m <sup>2</sup>	11		
	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<b><u>Off-shutter Smooth formwork to sides</u></b>				
259	Columns	m <sup>2</sup>	16		
	<b><u>REINFORCEMENT</u></b>				
	<b><u>NOTE:</u></b> Work Group No 111 for JBCC CPAP purposes				
	<b><u>Mild steel reinforcement to structural concrete work</u></b>				
260	8mm Diameter bars	t	0.65		
261	12mm Diameter bars	t	0.47		
	<b><u>PRECAST CONCRETE</u></b>				
	<b><u>PRECAST CONCRETE</u></b>				
	<b><u>Precast concrete</u></b>				
262	370mm x 75mm x 65mm Coping	m	18		
	<b><u>Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing</u></b>				
263	300 x 150mm High kerbs (SABS 927 fig 8) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc	m	72		
	<b><u>MASONRY</u></b>				
	<b><u>FOUNDATIONS</u></b>				
	<b><u>Brickwork of NFPE bricks (17 MPa nominal compressive strength) in class I mortar in loadbearing walls, etc.</u></b>				
264	345mm Brick wall (Foundations)	m <sup>2</sup>	9		
	<b>Carried to collection</b>			R	
	Bill No. 4 BUS AND TAXI DROP OFF Moedwil Combined School Phase Two				

<b><u>SUPERSTRUCTURE</u></b>					
<b><u>Brickwork of NFX bricks in class II mortar</u></b>					
265	345mm Brick wall	m <sup>2</sup>	12		
<b><u>BRICKWORK SUNDRIES</u></b>					
<b><u>Joint forming material in movement joints</u></b>					
266	12mm Bitumen impregnated fibreboard built in vertically between brick skins	m <sup>2</sup>	5		
<b><u>2.8mm diameter galvanised brickwork reinforcement</u></b>					
267	230mm Wide reinforcement built in horizontally	m	53		
<b><u>FACE BRICKWORK</u></b>					
<b><u>Topaz Travertine FBS or equally approved Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.</u></b>					
268	Extra over brickwork for face brickwork	m <sup>2</sup>	24		
<b><u>WATERPROOFING</u></b>					
<b><u>DAMP-PROOFING OF WALLS AND FLOORS</u></b>					
<b><u>One layer of 250 micron thick gunplus usb green damp-proof membrane (SANS 952-1985 Type C) sealed at laps with PVC self-adhesive tape</u></b>					
269	Under surface beds	m <sup>2</sup>	72		
<b><u>ROOF COVERINGS ETC</u></b>					
<b><u>EMBOSSSED PROFILED ROOFING</u></b>					
<b>Carried to collection</b>				R	
Bill No. 4 BUS AND TAXI DROP OFF Moedwil Combined School Phase Two					

	<u>0,6mm Thick IBR roof sheeting with pre-painted finish and accessories fixed to timber purlins or rails in strict accordance with manufacturer's specifications.</u>				
270	Roof coverings	m <sup>2</sup>	72		
	<b><u>STRUCTURAL STEELWORK</u></b> <b><u>(PROVISIONAL)</u></b>				
	<b><u>STEEL PURLINS, GIRTS, BRACING, ETC</u></b>				
	<b><u>Purlins and girts, bolted or welded to steel</u></b>				
271	100 x 75 x 20 x 2.5mm Thick CFLC purlins with metal end closer	t	0.29		
	<b><u>STEEL COLUMNS AND BEAMS</u></b>				
	<b><u>Welded columns in single lengths with flat section base, top, bearer and connection plates, bolted to concrete</u></b>				
272	150 x 100 x 2.5mm RHS columns bolted to concrete stub	t	0.44		
273	150x 100 x 2.5mm RHS rafter	t	0.25		
	<b><u>Bolts, Nuts, Washers and etc</u></b>				
274	250 x 200 x 6mm Thick base plate	No	16		
275	10mm Anchor rods fully welded to shelf angle and cast into concrete slab	No	128		
	<b><u>PAVING</u></b>				
	<b><u>PAVING</u></b>				
	<b><u>60mm Coloured "Double Zig Zag" interlocking roadstone paving</u></b>				
276	Paving to walkways laid to falls and cross falls.	m <sup>2</sup>	72		
277	Extra for edge blocks	m	36		
	<b>Carried to collection</b>			R	
	Bill No. 4 BUS AND TAXI DROP OFF Moedwil Combined School Phase Two				



[illegible]

Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 3</u></b>			
	<b><u>BILL NO. 5</u></b>			
	<b><u>SPORTS FIELD AND COMBI COURTS</u></b>			
	For preambles see "Model Preambles for Trades"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<b><u>NATURE OF GROUND</u></b>			
	<i>The following are typical examples of descriptions of "nature of ground".</i>			
	<u>Nature of ground</u>			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock".			
	Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"..			
	A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock".			
	<b>Carried to collection</b>		R	
	Bill No. 5 SPORTS FIELDS AND COMBI COURTS Moedwil Combined School Phase Two			

**SUB-TERRANEAN WATER**

User note

*The following are typical examples of descriptions of "subterranean water".*

Subterranean water

No subterranean water is expected.

**GENERAL**

Foundations shall not be laid until excavations have been approved of, in writing, by the Principal Agent and/or Civil Engineer and such excavations shall not be covered until any variation has been measured.

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 to a suitable dumping site outside the boundary of the site.

Filling

All filling material to be utilised shall be approved beforehand by the Principal Agent and/or Civil Engineer prior to ordering. A sample of 60 Kg of such proposed fill shall be made available by the contractor, with a 14 days period set aside for carrying out such sample testing.

**Carried to collection**

R

Bill No. 5  
SPORTS FIELDS AND COMBI COURTS  
Moedwil Combined School Phase Two

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.

User note

*When no information regarding density tests is available the following preamble in respect of testing may be inserted.*

Testing

*Prices for filling are to include for all necessary density tests in accordance with SANS 1200D.*

User Note

Soil poisoning shall be conducted with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and then applied at a rate of not less than 5 litres per square metre. The concentration of the solution shall be in accordance with the manufacturer's instructions, to the approval of the Principal Agent and/or Civil Engineer and undertaken under such supervision.

**SOCCER PITCH**

**EARTHWORKS**

**Excavation in earth not exceeding 2m deep**

278	Trenches	m <sup>3</sup>	1,120
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279	Open face excavation (including widening and depth to be approved by the engineer) to form a platform	m <sup>3</sup>	6,753
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**Extra over trench excavation in earth for excavation in**

280	Soft rock	m <sup>3</sup>	787
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281	Hard rock	m <sup>3</sup>	394
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**Carried to collection**

R

Bill No. 5  
SPORTS FIELDS AND COMBI COURTS  
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	<b><u>Extra over all excavations for carting away</u></b>		
282	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	280
	<b><u>Risk of collapse of excavations</u></b>		
283	Sides of trench and hole excavations not exceeding 1,5m deep	m²	4,974
	<b><u>Keeping excavations free of water</u></b>		
284	Keeping excavations free of all water other than subterranean water		Item
	<b><u>FILLING ETC</u></b>		
	<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density</u></b>		
285	150mm G5 material compacted to 93%ModAASHTO	m³	1,084
	<b><u>Earth filling supplied by the contractor and lightly compacted</u></b>		
286	100mm Weed free top soil compacted lightly	m³	36
287	100mm Weed free top soil compacted lightly	m³	1,351
288	75mm Compost with fertilizer layer	m³	1,080
	<b><u>Compaction of surfaces</u></b>		
289	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	13,506
	<b><u>Prescribed density tests on filling</u></b>		
290	"Modified AASHTO Density" test	No	341
	<b><u>SOIL POISONING</u></b>		
	<b>Carried to collection</b>		R
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	<b><u>Soil insecticide to surfaces and appropriate soil poisoning certificate SANS 0124 to be provided.</u></b>				
291	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	13,506		
	<b><u>LANDSCAPING</u></b>				
	<b><u>Soccer pitch to Architect's approval</u></b>				
292	400m Oval kikuyu grass athletics track with 8 lanes of 1220mm wide with 50mm wide demarcation lines and goal posts according to Architect's specification	No	1		
	<b><u>PRECAST CONCRETE KERBS, ETC.</u></b>				
	<b><u>Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing</u></b>				
293	300 x 150mm High kerbs (SABS 927 fig 8) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc	m	845		
	<b><u>IRRIGATION SYSTEM</u></b>				
	<b><u>High density polyethylene Class PN10 type IV piping complying with SANS 533-1</u></b>				
294	50mm Pipes laid in and including trenches approximately 1000mm deep	m	796		
	<b><u>High density polyethylene Class PN8 type IV piping complying with SANS 533-1</u></b>				
295	32mm Pipes laid in and including trenches approximately 1000mm deep	m	964		
296	20mm Pipes laid in and including trenches approximately 1000mm deep	m	396		
	<b><u>Extra over Class 8 HDPE type IV pipes for fittings</u></b>				
297	32x20mm reducing tee	No	54		
	<b>Carried to collection</b>			R	
	Bill No. 5 SPORTS FIELDS AND COMBI COURTS Moedwil Combined School Phase Two				

298	20x20mm tees	No	56		
299	20mm diameter pipe risers (1 meter length)	No	110		
	<b><u>VALVES, ETC</u></b>				
	<b><u>PN10 SG iron valves</u></b>				
300	50mm diameter	m	8		
301	32mm diameter	m	8		
302	20mm diameter	m	9		
	<b><u>Pop-up sprinklers</u></b>				
303	20mm nominal diameter PN8 sprinklers	No	110		
	<b><u>THRUST BLOCKS</u></b>				
	<b><u>20MPa/19mm reinforced concrete</u></b>				
304	Thrust block	m³	15		
	<b><u>Testing</u></b>				
305	Testing irrigation system		Item		
	<b><u>SPORTS FIELDS COMBI COURTS</u></b>				
	<b><u>EARTHWORKS</u></b>				
	<b><u>Excavation in earth not exceeding 2m deep</u></b>				
306	Trenches	m³	0.3		
	<b><u>Extra over trench excavation in earth for excavation in</u></b>				
307	Soft rock	m³	0.03		
308	Hard rock	m³	0.02		
	<b>Carried to collection</b>			R	
	Bill No. 5				
	SPORTS FIELDS AND COMBI COURTS				
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<b><u>Extra over all excavations for carting away</u></b>			
309	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m <sup>3</sup>	0.3
<b><u>Risk of collapse of excavations</u></b>			
310	Sides of trench and hole excavations not exceeding 1,5m deep	m <sup>2</sup>	0.1
<b><u>Keeping excavations free of water</u></b>			
311	Keeping excavations free of all water other than subterranean water	Item	
<b><u>FILLING ETC</u></b>			
<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density</u></b>			
312	150mm G5 material compacted to 95%ModAASHTO	m <sup>3</sup>	126
313	9.5mm Chipped stone, sprayed with bitumen emulsion and roll	m <sup>3</sup>	84
314	6.7mm Chipped stone, sprayed with bitumen emulsion and roll	m <sup>3</sup>	59
315	2 layers of Sifted sand sprayed with bitumen emulsion and roll	m <sup>3</sup>	168
<b><u>Compaction of surfaces</u></b>			
316	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m <sup>2</sup>	842
<b><u>Prescribed density tests on filling</u></b>			
317	"Modified AASHTO Density" test	No	22
<b>Carried to collection</b>			R
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	<b><u>Final layers for the Combi courts to Architect's approval</u></b>				
318	2 Layers of Barrasmatic vinyl compound	m <sup>3</sup>	253		
319	One layer of barracote blue to playing area	m <sup>2</sup>	126		
320	One layer of barracote maroon to surround	m <sup>2</sup>	410		
321	One layer of barracote green to tennis court	m <sup>2</sup>	257		
	<b><u>SOIL POISONING</u></b>				
	<b><u>Soil insecticide to surfaces and appropriate soil poisoning certificate SANS 0124 to be provided.</u></b>				
322	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m <sup>2</sup>	842		
	<b><u>PRECAST CONCRETE KERBS, ETC.</u></b>				
	<b><u>Precast concrete finished smooth on exposed surfaces, including bedding, jointing and pointing</u></b>				
323	300 x 150mm High kerbs (SABS 927 fig 8) with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint, including excavation, backfilling, etc	m	232		
	<b><u>FENCING DETAIL</u></b>				
	<b><u>Invisible Wall Fencing System</u></b>				
324	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 2120mm high with 90 degree top apertures including maintenance-free Everlast coating system and devilfork trim to top of fence	m	122		
325	100 x 100mm Square hollow section steel column	No	41		
326	900mm Wide x 2100mm high overall swing gate including posts, hinges, hasp and staple, etc.	No	2		
	<b>Carried to collection</b>			R	
	Bill No. 5 SPORTS FIELDS AND COMBI COURTS Moedwil Combined School Phase Two				

Section No. 3

Bill No. 5

SPORTS FIELDS AND COMBI COURTS

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SPORTS FIELDS AND COMBI COURTS  
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Bill No	SECTION SUMMARY - EXTERNAL WORKS (PROVISIONAL)	Page No	Amount R
1	GENERAL SITEWORKS	194	
2	BOUNDARY WALL	204	
3	PUMP HOUSE AND REFUSE BAY	216	
4	BUS AND TAXI DROP OFF	225	
5	SPORTS FIELDS AND COMBI COURTS	234	
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Item No		Quantity	Rate	Amount R
	<b><u>SECTION NO. 4</u></b>			
	<b><u>BILL NO. 1</u></b>			
	<b><u>PROVISIONAL AMOUNTS</u></b>			
	<p>The following provisional sums are for work to be executed by specialists who will be regarded as domestic sub-contractors to the contractor. The contractor shall call for quotations from specialists selected by the Department on documents prepared by the Department or the relevant consultant, in accordance with the Conditions of Contract and in conjunction with the Representative/Agent and the contractor shall in consultation with the relevant consultant adjudicate the tenders. The contractor shall upon the final decision of the Representative/Agent appoint the successful tenderer who shall become a selected domestic sub-contractor to the contractor. Privity of contract shall not be created between the Director-General and the domestic sub-contractor by the method of selection, tender enquiry, adjudication and appointment</p>			
	<b><u>DEMOLITION OF BUILDINGS WITH ASBESTOS</u></b>			
1	Allow the sum of R2 000 000,00 (Two Million Rand) for the demolition of buildings with asbestos	Item		2,000,000.00
2	Add for profit	Item		
3	Allow for attendance	Item		
	<b><u>LOOSE FURNITURE AS PER THE DEPARTMENT OF EDUCATION</u></b>			
4	Allow the sum of R2 500 000, 00 (Two Million and Five Hundred Thousand Rand) for the supply of Loose furniture	Item		2,500,000.00
5	Add for profit	Item		
6	Allow for attendance	Item		
	<b>Carried to collection</b>		R	
	Bill No. 1 PROVISIONAL SUMS Moedwil Combined School Phase Two			

## LANDSCAPE AND IRRIGATION

7	Allow the sum of R350 000,000 (Three Hundred and fifty Thousand Rand) for the supply of Landscape and irrigation	Item		350,000.00
8	Add for profit	Item		
9	Allow for attendance	Item		

**Carried to collection**

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Bill No. 1  
PROVISIONAL SUMS  
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Section No. 4

Bill No. 1

PROVISIONAL SUMS

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4	PROVISIONAL SUMS	238	
	PART B: ELECTRICAL INSTALLATIONS (Separate document)	Item	
	PART C: MECHANICAL INSTALLATIONS (Separate document)	Item	
	PART D: WET SERVICES (Separate document)	Item	
	PART E: OCCUPATIONAL HEALTH AND SAFETY (Separate document)	Item	
	Allow the sum of R5 000.00 (Five Thousand Rand) per month for Community Liaison Officer		R 90,000.00
	Allow the sum of R15 000 000(Fifteen Million Rand) for Contract Price Adjustment Provision (CPAP)		R 15,000,000.00
	Allow the sum of R7 500.00 (Seven Thousand Five Hundred Rand) per month for Project Steering Committee		R 135,000.00
	SUB-TOTAL excluding Value Added Tax (VAT)		R
	Value-added Tax		R
	<b>TOTAL CARRIED TO FORM OF TENDER</b>		R
	Moedwil Combined School Phase Two		