

Item No	Quantity	Rate	Amount
<u>BILL NO. 1</u>			
<u>PRELIMINARY AND GENERAL</u>			
<u>NOTES</u>			
i)	The agreement is to be the General Conditions of Contract for Works of Civil Engineering Construction (2015) (Third Edition), published by the S. A. Institution Of Civil Engineering.		
ii)	The Preliminaries are to be the Construction and management requirements for works contracts - Part 1: General engineering and construction works (SANS 1921-1: 2004 Edition 1) prepared by Standards South Africa and shall be deemed to be incorporated herein.		
iii)	Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary.		
iv)	Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading.		
v)	Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable").		
vi)	Adjustment of the preliminaries: each item priced, is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time.		
Carried to Collection			R
Section No. 1 Bill No. 1 Preliminary and General			

vii) Time (T) related Preliminaries will only be adjusted for omissions or additions, issued by the Employer, or delays caused by the Employer, for which variation and extension of time has been granted.

SECTION A: GENERAL CONDITIONS OF CONTRACT

1 **A1** General (clause 1)
F: _____ V: _____
T: _____

Item

2 **A2** Basis of contract (clause 2)
F: _____ V: _____
T: _____

Item

3 **A3** Employer's Agent (clause 3)
F: _____ V: _____
T: _____

Item

4 **A4** Contrators general obligations (clause 4)
F: _____ V: _____
T: _____

Item

5 **A5** Time and related matters (clause 5) - As referred to in the Contract Data under Special Condition of Contract. The Contract Period shall be deemed to include all Non Working Days, Special Non - Working Days and the year-end Builders Annual Industry Holiday Periods.
F: _____ V: _____
T: _____

Item

6 **A6** Payment and related matters (clause 6)
F: _____ V: _____
T: _____

Item

7 **A7** Quality and related matters (clause 7)
F: _____ V: _____
T: _____

Item

8 **A8** Risks and related matters (clause 8)
F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

9 **A9** Terminations of contract (clause 9)
F: _____ V: _____
T: _____

Item

10 **A10** Claims and disputes (clause 10)
F: _____ V: _____
T: _____

Item

**SECTION B: SANS 1921-1:2004 (Edition 1):
CONSTRUCTION AND MANAGEMENT
REQUIREMENTS FOR WORKS CONTRACTS:
PART 1**

Refer to the **SCOPE OF WORK** for detail requirements:

11 **B1** Scope (clause 1)
F: _____ V: _____
T: _____

Item

12 **B2** Normative references (clause 2)
F: _____ V: _____
T: _____

Item

13 **B3** Definitions (clause 3)
F: _____ V: _____
T: _____

Item

14 **B4** Requirements for construction and management (clause 4)
F: _____ V: _____
T: _____

Item

15 **B4.1** General (Clause 4.1)
F: _____ V: _____
T: _____

Item

16 **B4.2** Responsibilities for design and construction (clause 4.2)
F: _____ V: _____
T: _____

Item

17 **B4.3** Planning, programme and method statements (clause 4.3)
F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

18 **B4.4** Quality assurance (clause 4.4)
F: _____ V: _____
T: _____

Item

19 **B4.5** Setting out (clause 4.5)
F: _____ V: _____
T: _____

Item

20 **B4.6** Management and disposal of water (clause 4.6)
F: _____ V: _____
T: _____

Item

21 **B4.7** Blasting (Clause 4.7)
F: _____ V: _____
T: _____

Item

22 **B4.8** Works adjacent to services and structures
(clause 4.8)
F: _____ V: _____
T: _____

Item

23 **B4.9** Management of the Works and site (clause 4.9)
F: _____ V: _____
T: _____

Item

24 **B4.10** Earthworks (clause 4.10)
F: _____ V: _____
T: _____

Item

25 **B4.11** Testing (clause 4.11)
F: _____ V: _____
T: _____

Item

26 **B4.12** Materials, samples and fabrication drawings
(clause 4.12)
F: _____ V: _____
T: _____

Item

27 **B4.13** Equipment (clause 4.13)
F: _____ V: _____
T: _____

Item

28 **B4.14** Site establishment (clause 4.14)
F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

29	<p>B4.15 Survey control (clause 4.15) F: _____ V: _____ T: _____ As built survey information prepared by an engineering surveyor to be submitted upon request to the engineer.</p>	Item
30	<p>B4.16 Temporary works (clause 4.16) F: _____ V: _____ T: _____</p>	Item
31	<p>B4.17 Existing services (clause 4.17) F: _____ V: _____ T: _____ The contractor to note that the water and electricity supplies at the specific school may be restricted or possibly non-existent. Accordingly, the tenderer to ensure that temporary supplies(water tanks/ electrical generators) are available on site to meet the project demands and to achieve continuity of the works on site.The use of potable water for construction activities is prohibited.</p>	Item
32	<p>B4.18 Health and safety (clause 4.18) F: _____ V: _____ T: _____ The Contractor shall provide all PPE requirements for all employees and visitors to the site, during the execution of the works.</p>	Item
33	<p>B4.19 Environmental requirements (clause 4.19) F: _____ V: _____ T: _____</p>	Item
34	<p>B4.20 Alterations, additions, extensions and modifications to existing works (clause 4.20) F: _____ V: _____ T: _____</p>	Item
35	<p>B4.21 Inspection of adjoining structures, services, buildings and property (clause 4.21) F: _____ V: _____ T: _____</p>	Item
36	<p>B4.22 Attendance on nominated and selected subcontractors (clause 22) F: _____ V: _____ T: _____</p>	Item

Carried to Collection

Section No. 1
 Bill No. 1
 Preliminary and General

R

SECTION C: SCOPE OF WORK IN ACCORDANCE WITH SANS 10403

(The reference to Clauses refer to Table B.1 of SANS 1921-1:2004)

37 **C.1** Certification by recognised bodies (clause 4.4)
F: _____ V: _____
T: _____

The contractor shall provide all original certification of compliance in respect of all specialist installations and compliance testing as deemed necessary or as stipulated by the engineer. Payment will be withheld in the absence of the provision of original compliance certificates.

Item

38 **C.2** Agrément certificates (clause 4.5)
F: _____ V: _____
T: _____

Item

39 **C.3** Other services and facilities (clause 4.8)
F: _____ V: _____
T: _____

Item

40 **C.4** Recording of weather (clause 5.2)
F: _____ V: _____
T: _____

A rain gauge shall be provided on site for the duration of the contract. A diary shall be maintained with all rainfall records and signed off by the school principal and thereafter submitted to the engineer at every site meeting.

Item

41 **C.5** Management meetings (clause 5.3)
F: _____ V: _____
T: _____

Item

42 **C.6** Daily records (clause 5.6)
F: _____ V: _____
T: _____

Item

43 **C.7** Bond and guarantees (clause 5.7)
F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

44 **C.8** Permits (clause 5.9)
F: _____ V: _____
T: _____

Item

45 **C.9** Proof of compliance with the law (clause 5.10)
F: _____ V: _____
T: _____

Item

SECTION D: SPECIFICATION DATA
ASSOCIATED WITH SANS 1921-1:2004
(Table A.1)

46 **D.1** Requirements for drawings, information and calculations for which the contractor is responsible (clause 4.1.7)
F: _____ V: _____
T: _____

Item

47 **D.2** The responsibility strategy assigned to the contractor for the works (clause 4.2.1)
F: _____ V: _____
T: _____

Item

48 **D.3** The planning, programme and method statements (clause 4.3)
F: _____ V: _____
T: _____
The Contractor must provide weekly programme updates to the engineer including the identification of all the activities that are delayed and the proposed plan for corrective action.

Item

49 **D.4** Samples of materials, workmanship and finishes (clause 4.12.1)
F: _____ V: _____
T: _____

Item

50 **D.5** Fabrication drawings that the contractor is to provide and deliver to the employer (clause 4.12.2)
F: _____ V: _____
T: _____

Item

51 **D.6** Office for the foreman (clause 4.14.3)
F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

52 **D.7** Telephone (clause 4.14.3)
F: _____ V: _____
T: _____

Item

53 **D.8** Office for inspector of works (clause 4.14.3)
F: _____ V: _____
T: _____

Item

54 **D.9** Telephone in office for inspector of works
(clause 4.14.3)
F: _____ V: _____
T: _____

Item

55 **D.10** Sheds (clause 4.14.3)
F: _____ V: _____
T: _____

Item

56 **D.11** Provision and erection of signboards
(clause 4.14.6)
F: _____ V: _____
T: _____

Item

57 **D.12** Termination, diversion or maintenance of
existing services (clause 4.17.1)
F: _____ V: _____
T: _____

Item

58 **D.13** Services which are known to exist (clause
4.17.3)
F: _____ V: _____
T: _____

Item

59 **D.14** Detection apparatus (clause 4.17.4)
F: _____ V: _____
T: _____

Item

60 **D.15** Additional health and safety requirements
(clause 4.18)
F: _____ V: _____
T: _____

Item

SECTION E: SPECIFIC PRELIMINARIES

Section E contains Specific Preliminary items
which apply to this contract except where "N/A"
(Not Applicable) appears against the item.

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

61 **E1 PROPRIETARY BRANDED PRODUCTS**

The tenderer shall take delivery of, handle, store, use apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instruction after consultation with the manufacturer's authorised representative.

F: _____ V: _____
T: _____

Item

62 **E2 OVERTIME**

Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the Contractor unless the Engineer/Principal Agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the Employer.

F: _____ V: _____
T: _____

Item

63 **E3 AS BUILT DRAWINGS**

The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the Structural Engineer's drawings and are to be submitted to the Engineer/Principal Agent and the Structural Engineer for their records.

F: _____ V: _____
T: _____

Item

64 **E4 SITE INSTRUCTIONS**

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

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

65 E5 LABOUR RECORD

At the end of each week for the full duration of the contract, the contractor shall provide the employers agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all sub-contractors on the works each day. The contractor shall provide the completed eThekwini local labour forms or DPW local labour forms format , records and schedules together with all supporting documentation (certified ID copies , employee details, wage rates, proof of payment , period of employment, employment contracts, etc). The client reserves the right to conduct random inspections on site to verify the local labour employed on the project.

F: _____ V: _____
T: _____

Item

66 E6 PLANT RECORD

At the end of each week the Contractor shall provide the Engineer/Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works.

F: _____ V: _____
T: _____

Item

67 E7 NON CESSION OF MONIES

The Contractor shall not cede nor assign his rights or claims to any monies due or to become due under this contract.

F: _____ V: _____
T: _____

Item

68 E8 SECTIONAL COMPLETION

When it is required that the contract be executed in sections or portions, the tenderer shall allow for all costs in this regard as no claim for additional costs will be entertained.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

69 **E9 LOCAL LABOUR**

It is a general requirement of this contract that persons normally resident in the locality of the works (local labour) be given preference for employment on the contract. Provided, however, that should adequate and appropriate Labour not be available within the locality, other may be employed subject to satisfactory proof being provided that every reasonable endeavour has been made to employ local Labour. The Contractor shall identify the local community leaders with the purpose of negotiating with them regarding the utilization of local Labour in the construction process. In this regard, the Contractor shall furthermore give preference, wherever possible to the employment of single heads of households, women and youth and preference should be given to the resident of the hostel. The Contractor shall, in general, maximize the involvement of the local labour and it is required that 100% of unskilled labour should be from the local community. All standard local labour employment forms (eThekwnini Municipality local labour forms or EPWP local labour forms) together with the supporting documentation (certified ID copies, employee details, wage rates, proof of payment, period of employment, employment contracts, etc) must be submitted with the monthly payment certificates and issued to the engineer.

F: _____ V: _____
T: _____

Item

70 **E10 IMPORT PERMITS AND DUTIES**

The responsibility for obtaining the necessary import permits shall rest with the successful Tenderer. No foreign exchange will be arranged or provided by the Administration.

Tenderers are to allow in their tenders and pay the ordinary levy imposed on imported items in terms of item 196.10 of Part 8 of Schedule No. 1 of the Customs and Excise Act, 1964 with effect from 1 October 1989.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

71 **E11 CONTRACT PRICE ADJUSTMENT PROVISIONS (CPAP)**

Notwithstanding anything to the contrary contained in the GCC for Construction Works 2015 3rd Edition, this Contract shall only when the Construction Period exceeds 6 months and the Contract sum exceeds R1,000,000,00 be subject to the Contract Price Adjustment Provisions Indices Application Manual for use with P0151 indices (CPAP) (Revised 1 January 2013) as published by Statistics South Africa. Tenderers are advised that with reference to Clause 3.4.6 of the Contract Price Adjustment Provisions (CPAP) Indices Applications Manual, the Head: Public Works will not accept the submission by Tenderers of lists of additional items unless otherwise instructed.

Where this contract is a Lump Sum contract, the contract will be subject to Contract Price Adjustment Provisions (CPAP) only where the contract period equals or exceeds 6 calendar months. The applicable work group shall be WG 180 for domestic buildings or WG 181 for commercial and industrial buildings.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

72 **E12 EXPANDED PUBLIC WORKS PROGRAMME (EPWP)**

Tenderers are advised that this contract will be subject to certain provisions of the Expanded Public Works Program (EPWP) aimed at alleviating and reducing unemployment.

Tenderers must allow for any costs for the following employment requirements of the EPWP.

1. 55% of unskilled labour to be women.
2. 40% of unskilled labour to be youth aged between 18 and 35 years.
3. 2% of unskilled labour to be people living with disability.
4. 100% Unskilled labour utilised must reside within the boundaries of the Municipality Ward where this contract is executed, with preference to the local community closest or at the walking distance to the contract site. Wherever possible local skilled tradesmen are to be employed on this contract with the view to maximize utilization of local resources. This is not an EPWP project.

TENDERERS TO NOTE:

Those parts of the contract to be constructed using Labour intensive methods have been marked in the bills of quantities/lump sum document with the letters LI (indicating "Labour Intensive") against every item so designated. The works, or parts of the works so designated are to be constructed using Labour intensive methods only.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

73 **E12.1 LABOUR RATE AND PAYMENT INTERVALS**

The contractor should ensure that labour rate paid to unskilled local labour is commensurate to the daily task. When determining the rate, consideration should be given to beneficiaries are mostly bread winners in their families, as the program intends alleviating poverty. There should also be consideration that the labour rate promotes creation of expanded number of jobs created and person days of work.

The labour rate for local unskilled shall also be determined in consideration of the location of the project, i.e. for projects implemented in urbanized municipalities will not be the same as that for rural municipalities.

F: _____ V: _____
T: _____

Item

74 **E12.2 RECORD KEEPING**

12.3.1 Every employer must keep in the project site office the following minutes of site progress minutes; contractors' monthly site progress reports; accurately recorded attendance register; proof of payment as means to verify authenticity of data in the EPWP Beneficiary form submitted with payment certificates. Copies of submitted EPWP beneficiary data forms should also be kept in the site office.

F: _____ V: _____
T: _____

Item

75 **E12.3 SUB CONTRACTING OPPORTUNITIES FOR LOCAL BUSINESS IN CONSTRUCTION DEVELOPMENT COMPANIES**

The Contractor will sub-contract as per eThekweni enterprise development policy against the contract value. A schedule entitled "Tendered Contract Participation Goal" is appended a returnable.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

76 **E13 HIV/AIDS AWARENESS**

Tenderers are to price against the following items for compliance with the SPECIFICATION FOR HIV/AIDS AWARENESS bound into this document (The clauses referred to are those of the Specification for HIV/AIDS)

E13.1 Provide and maintain a condom dispenser in terms of Clause 5.1a

F: _____ V: _____
T: _____

Item

77 **E13.1** Provide and maintain HIV/AIDS awareness posters terms of Clause 5.1b

F: _____ V: _____
T: _____

Item

78 **E13.2** HIV /Aids Awareness Programme on Site for not less than 90% of workers inclusive of all direct and indirect costs;
Engage a qualified service provider as described in the scope of works to conduct an HIV Awareness Programme in terms of Clause 5.2.1a

F: _____ V: _____
T: _____

Item

79 **E13.3** Arrange for workers to attend the HIV Awareness Programme in terms of Clause 5.2.1b

F: _____ V: _____
T: _____

Item

80 **E13.4 REPORTING**

Prepare and attach to claims for payment a brief report in terms of Clause 5.3 (see also HIV/STI Compliance Report (included with this document).

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

Note: In the event that the contractor fails to satisfy the requirements of this specification, the employer (Head: Public Works) may apply any of the sanctions provided for in the contract. Sanctions may include the application of a financial penalty of .04% of the Contract Sum.

81 **E14 OCCUPATIONAL HEALTH AND SAFETY ACT NO. 85 OF 1993**

Tenderers are to allow for costs in providing a project specific ' Construction Phase Safety, Health and Environmental Plan' in accordance with "Section 2 - Specification Data associated with SANS 1921-1:2004" clause C4.18 in "Part C3 - Scope of Work"

F: _____ V: _____
T: _____

Item

82 **E15 NOTICE BOARD, SITE OFFICE, ETC**

Bidders are to allow for the provision and removal of a project notice board and a site office in accordance with the Principal Agent's requirements.

F: _____ V: _____
T: _____

Item

83 **E16 IMPORTED MATERIALS AND EQUIPMENT**

Where imported items are listed in the tender documents, the tenderer shall provide all information called for, failing which the price of any such item, material or equipment shall be excluded from currency fluctuations.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

84 **E17 CONTRACT DOCUMENTS**

The drawings issued with these Bid documents do not comprise the complete set but serves as a guide only for Biding purposes and for indicating the scope of works to enable the Bidder to acquaint him 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 legible to the Bidder he shall, before submitting his Bid, obtain clarification in writing from the principal agent.

F: _____ V: _____
T: _____

Item

85 **E18 GENERAL PREAMBLES**

The Document Preambles will be the "ASAQS Model Preambles for Trades - 2008" and is obtainable from the various online through the Public Works website or available on rquest and shall be read in conjunction with the Bills of Quantities and be referred to for the full descriptions of work to be done and materials to be used.

F: _____ V: _____
T: _____

Item

86 **E19 TRADE NAMES**

Wherever a Trade Name for any product has been described in the Bills of Quantities the Bidder'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 Bids.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

87 **E20 EXISTING PREMISES**

The contractors attention is drawn to the fact that the existing building and surrounding buildings will remain in occupation during the performance of this contract and it is essential that the interruption to the daily activities of be kept to a minimum during the construction activities, to this end, the Contractor must allow for working in co-operation with the Engineer in organising the work in such a way as to cause the minimum disruption to the normal activities of this institution

F: _____ V: _____
T: _____

Item

88 **E21 INACCURATE AND DEFECTIVE WORK EXECUTED UNDER PREVIOUS CONTRACT**

The contractor shall, after taking possession of the site and before commencing the work, check all levels, liners, profiles and the like and satisfy himself as to the dimensional accuracy of all work executed under the previous contract which may affect his work.

Should any inaccurate or defective work be found, the contractor shall immediately notify the principal agent in writing requesting his instructions with regard thereto and afford every facility to those rectifying such inaccurate or defective work.

F: _____ V: _____
T: _____

Item

89 **E22 VIEWING THE SITE IN SECURITY AREAS**

If the site is situated in a security area and the Bidder must arrange with the Authorities to obtain permission to enter the site for Bidding purposes.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

90 **E23 COMMENCEMENT OF WORKS IN SECURITY AREAS**

If the works falls within a security area, the contractor must arrange with the Authorities and give the necessary notices before commencement of the works. Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractor's account.

F: _____ V: _____
T: _____

Item

91 **E24 ENTRANCE PERMITS TO SECURITY AREAS**

If the works fall within a security area, the contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under control of the Authority.

F: _____ V: _____
T: _____

Item

92 **E25 SECURITY CHECK OF PERSONNEL**

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

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

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

93 **E26 PROHIBITION ON TAKING PHOTOGRAPHS**

In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking photographs, except when authorised thereto by or on behalf of the Minister."

The same prohibition is also applicable to all Correctional Institutions in terms of article 44.1(e) of the Correctional Services Act 8 of 1959.

F: _____ V: _____
T: _____

Item

94 **E27 NATURE AND EXTENT OF WORK**

The broad scope of the work comprises repairs, renovation, alterations, external works, construction of repair and upgrade of the Hostel to CRU including surroundings , in line with housing policy for CRU

F: _____ V: _____
T: _____

Item

95 **E28 PROTECTION OF EXISTING**

Every care shall be taken to protect all parts of the building and ground against disfigurement of any kind. The contractor shall be responsible for any damage caused to vehicles, persons or property by his operations, and he will be required to supply and maintain such temporary measures as are required, to prevent such damage.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

96 **E29 ACCESS**

The contractor is to allow for all costs associated with sites having restricted access due to location, road conditions, etc. The contractor to note the sites have extremely restricted access and in some instances , restricted access may affect the delivery of materials etc. The contractor to accordingly ensure the most suitable and effective access routes are investigated and implemented to achieve continuity of the works.

F: _____ V: _____
T: _____

Item

97 **E30 SAFETY TO THE SITE**

All scaffolding, protection, machinery and tools on the site shall be erected, used and/or maintained in accordance of the requirements of the Occupational Health and Safety Act (85/1993) as amended and any regulations thereto. All relevant local authority bylaws shall also be complied with. The contractor to provide suitable hoarding to demarkate the area of the construction works from the other adjacent operational areas. All open excavations and incomplete construction work to be cordoned off with danger tape.

F: _____ V: _____
T: _____

Item

98 **E31 ASBESTOS CEMENT**

All preparatory work, alterations, demolitions, etc. to existing asbestos cement roof sheeting, gutters, rainwater pipes, etc. are to be carried out strictly in accordance with statutory requirements (Occupational Health and Safety Act, 1993 - Asbestos Regulations, 2001) and all necessary precautions must be taken when working with and disposing of asbestos cement products and the disposing of waste resulting from cleaning operations, etc.

Allowance is to be made for costs associated with compliance with these Regulations.

F: _____ V: _____
T: _____

Item

Carried to Collection

R

Section No. 1
Bill No. 1
Preliminary and General

99

E32 EXISTING PREMISES OCCUPIED

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 adjoining building and occupants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins, temporary fences that may be necessary during the progress of the works, all to the satisfaction of the employers agent. The contractor may have to sequence noisy activities during school hours. In addition, no disruptions will be entertained during examinations.

F: _____ V: _____
T: _____

Item

Carried to Collection

Section No. 1
Bill No. 1
Preliminary and General

R

Section No. 1

Bill No. 1

Preliminary and General

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

Carried Forward

R

Section No. 1

Bill No. 1

Preliminary and General

Section No. 1

Bill No. 1

Preliminary and General

COLLECTION

Brought Forward

**Page
No**

Amount

R

Total Brought Forward from Page No.

86

87

Carried Forward to Summary of Section No. 1

R

Section No. 1

Bill No. 1

Preliminary and General

Item No	<u>BILL NO. 2</u>	Quantity	Rate	Amount
	<u>OCCUPATIONAL HEALTH AND SAFETY</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>SECTION F: OCCUPATIONAL HEALTH AND SAFETY</u>			
	<u>PPE:</u>			
1	Hi-Visibility conti-suit (Small to XL Royal Blue) : Annually	No	1	
2	Hi-Visibility conti-suit (Small to XL Orange with EPWP Logo) : Annually	No		
3	Steel Toe Capped Safety Boots : Annually	No		
4	Hi-Visibility Safety Vest: Annually	No		
5	SABS Approved Hard Hat: Annually	No		
6	Hi-Viaibility Rain Suits: Annually	No		
7	Steel Toe Capped Gumboots: Annually	No		
8	Dust Masks (Stipulate FFP):Annually	No		
9	Safety Glasses: Annually	No		
10	Gloves (Stipulate Type): PVC Gloves: Annually	No		
11	Safety Harnesses: Annually	No		
12	Disposable gloves (Stipulate Type): PVC Gloves: Monthly	No		
	Carried to Collection			R
	Section No. 1 Bill No. 2 Health and Safety			

13	Reusable/disposable surgical masks : Monthly	No
14	Others Contractor to specify	No
<u>TRAINING:</u>		
15	Safety Representative Training : Once off	No
16	First Aider Training : Once off	No
17	Fire Fighting Training : Once off	No
18	Fall Protection plan developer	No
19	HIV awareness	No
20	All compulsory	No
<u>SCAFFOLDING:</u>		
21	Scaffolding Supervisor as per SANS 10085: Once off	No
22	Scaffolding Inspector as per SANS 10085 : Once off	No
23	Scaffolding errector as per SANS 10085 : Once off	No
24	Traffic Officer training : Once off	No
25	Others Contractor to specify: Once off	No
<u>SPECIFIC H& S ITEMS</u>		
26	Medicals : Prea-placement, Annual & Exit	No
27	Screenings for employees with COVID-19 Symptoms	No
28	Spill Kit : Once off	No
29	First Aid Kits: Once off	No
30	Fire Extinguishers : Once off	No
31	Barrier Netting : Once off	No
32	Additional Ablutions : Once off	No

Carried to Collection

Section No. 1
Bill No. 2
Health and Safety

R

33	Non-contact Infrared Thermometers and maintenance thereof : Once off	No
	<u>Safety Signage:</u>	
34	Construction Boards: Once off	No
35	Directional Signs: Once off	No
36	Emergency Assembly point: Once off	No
37	No Smoking : Once off	No
38	No Naked Flames: Once off	No
39	COVID -19 Signage : Once off	No
	<u>H&S SALARIES</u>	
40	CHS Manager : Monthly	No
41	CHS Officer : Monthly	No
42	COVID-19 Compliance Officer : Monthly	No
	<u>Fixed Charge Item</u>	
43	Facilities for Contractor including offices, storage sheds, workshops, laboratories, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power, communications, setting out of works, security, traffic access - Made COVID-19 Safer. : Monthly	No
44	Hand Sanitiser - 500ml Cleaning detergents for everyday cleaning and hand wash : Monthly	No
45	Extra Cleaning - Disinfection/Sanitisation of workplace : Monthly	No
46	Maintenance of a register for workers contacts : Monthly	No
47	COVID-19 Awareness Signs : Once off	No
48	COVID-19 Waste Management : Monthly	No
49	COVID-19 Safety File : Once off	No

Carried to Collection

Section No. 1
Bill No. 2
Health and Safety

R

Section No. 1

Bill No. 2

Health and Safety

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

90

91

92

Carried Forward to Summary of Section No. 1

R

Section No. 1

Bill No. 2

Health and Safety

SECTION SUMMARY - Preliminaries

Bill No		Page No	Amount
1	Preliminary and General	89	
2	Health and Safety	93	
Carried to Final Summary			R
Section No. 1			

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 1</u></p> <p><u>ALTERATIONS AND DEMOLITIONS (PROVISIONAL)</u></p> <p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p> <p><u>Trade names</u></p> <p>Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description</p> <p><u>Samples</u></p> <p>Contractor to allow in the rates for the provision of samples where so required by the Principal Agent</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Note: Prices for "removing" are to include for removal from site</u></p> <p><u>DEMOLITIONS</u></p> <p><u>Temporary fence including shade cloth fixed to timber poles at suitable centres, with allowance for vehicle access and pedestrian gates fixed at the contractors discretion and shall be maintained and finally removed, including making good all as per the Principal Agents approval.</u></p>			
1	Hoarding 2000mm high, complete	m	200	
	<p><u>REMOVAL OF EXISTING WORK</u></p> <p style="text-align: right;">Carried to Collection</p> <p>Section No. 2 Bill No. 1 Alteration (Demolition)</p>		R	

Breaking up and removing reinforced concrete including cutting off & removing reinforcement

2	100-150mm Thick surface beds	m2	769
3	100mm thick concrete stormwater open channels, aprons, etc	m	160
4	Concrete counter	m2	33
5	Concrete sink	No	60
6	Concrete ironing boards	m2	2
7	Reinforced concrete table including steel legs and concrete benches	m2	19

Breaking up and removing brick work or block work etc.

8	Half brick walls	m2	126
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Taking out and removing doors, windows, etc including thresholds, sills, etc

9	Timber single door and steel door frame from 190mm thick wall	No	58
10	Timber single door and steel door frame from 90mm thick wall	No	68

Taking out and removing sundry joinery work, fittings, etc

11	Timber wall cupboards (size) BIC	No	156
12	Timber bench	No	39

Taking down and removal of rainwater disposal, etc

13	Existing gutters	m	162
14	Existing downpipes	m	144
15	Existing fascia and barde boards	m	162

Carried to Collection

Section No. 2
Bill No. 1
Alteration (Demolition)

R

<u>Taking out and removing ceilings , partitions, ect</u>			
16	Gypsum plasterboard ceilings including timber bandering, cornices, cover strips etc	m2	701
<u>Hacking up/off and removing granolithic, screeds, plaster, etc from concrete or brickwork and preparing surfaces for new screed, plaster, tile finishes, etc</u>			
17	20mm screed from floors	m2	2,804
18	20mm thick roof screed including waterproofing	m2	769
19	Internal plaster from walls	m2	9,137
20	Internal plaster from ceilings and beams	m2	2,103
21	External plaster from walls, columns and beams	m2	1,995
<u>Hacking up/off and removing ceramic tiles including removing mortar bed or adhesive from concrete or brickwork and preparing surfaces for new screed, plaster, tile finish, etc</u>			
22	Tiles to walls	m2	340
<u>Scraping off paint in bad conditions and prepare for new paint</u>			
23	On ceilings	m2	2,103
<u>Taking out and removing sanitary fittings, tanks, geysers, etc, including disconnecting from pipes, traps, etc and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u>			
24	Stainless steel Kitchen sink on concrete counter	No	56
25	Wash hand basin	No	64
26	Floor mounted WC with cistern	No	44
27	Existing shower tray to be removed	No	44
28	Litre geyser from wall (ceiling)	No	24

Carried to Collection

R

Section No. 2
Bill No. 1
Alteration (Demolition)

<u>Taking out and removing glass and mirror</u>		
29	Glass from steel windows including cleaning out rebates and preparing for new glass	m2 249
<u>Cutting through floors</u>		
30	Saw cut top of existing concrete surface bed/ slabs to a minimum depth of 20mm prior to breaking up and removing concrete, etc complete.	m 440
<u>Building opening</u>		
31	90mm brick walls	m2 268
32	190mm brick walls	m2 73
<u>Sundries</u>		
33	Cutting toothing and bonding new brickwork to existing	m2 29
<u>Preparatory works to existing surfaces</u>		
34	Hacking surface of existing floors to create key to receive new floor finish	m2 769
35	Hacking surface of existing face brickwork to create key to receive new external plaster	m2 1,993
<u>MAKING GOOD OF FINISHES, ETC</u>		
<u>Making good internal cement plaster</u>		
36	Walls where 90mm brickwalls were removed	m2 29
37	Walls where 190mm brickwalls were removed	m2 5
<u>Making good screed</u>		
38	Floors where 90mm brick walls were removed	m 80
39	Floors where 230mm brick walls were removed	m 80

Carried to Collection

R

Section No. 2
Bill No. 1
Alteration (Demolition)

Breaking out for and forming openings through brickwalls for new doors and frames including necessary precast concrete lintels and making good plaster on both sides and into reveals and with 90mm concrete thresholds with steel trowelled finish (new doors and frames and making good paintwork)

40	Opening for single door size 900 x 2032mm high	No	38
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CLEANING OF EXISTING SURFACES TO RECEIVE NEW FINISH

High pressure cleaning

41	Existing face brick walls	m2	326
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Carried to Collection

Section No. 2
Bill No. 1
Alteration (Demolition)

R

Section No. 2

Bill No. 1

Alteration (Demolition)

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

95

96

97

98

99

Carried to Final Summary

R

Section No. 2

Bill No. 1

Alteration (Demolition)

Item No	Quantity	Rate	Amount
<p><u>BILL NO 1</u></p>			
<p><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p><u>Cost of tests</u></p>			
<p>Cost of tests The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor and to the approval of the architect. (Test cubes are measured separately)</p>			
<p><u>Formwork</u></p>			
<p>Formwork Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use. The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.</p>			
<p>Carried to Collection</p>			
<p>Section No. 3 Bill No. 1 Concrete, Formwork and Reinforcement</p>			
		R	

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

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

REINFORCED CONCRETE

30MPa/20mm concrete

1	Slabs, including beams and inverted beams	m3	100
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TEST CUBES

2	Making and testing 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	25
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CONCRETE SUNDRIES

Finishing top surfaces of concrete smooth with a power float

3	Surface beds, slabs, etc	m2	769
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Fabric reinforcement

4	Type 245 fabric reinforcement in concrete surface beds, slabs, etc	m2	769
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SMOOTH FORMWORK (DEGREE OF ACCURACY 1)

Smooth formwork to sides

5	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	132
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MOVEMENT JOINTS ETC

Carried to Collection

Section No. 3
Bill No. 1
Concrete, Formwork and Reinforcement

R

	<u>Two layers of 0,6mm galvanised sheet steel in slip joints between horizontal concrete and brick surfaces, including cement mortar bed</u>		
6	Not exceeding 300mm wide	m	440
	<u>Expansion joints with softboard between vertical concrete and brick surfaces</u>		
7	10mm Joints not exceeding 300mm high along edges of surface beds	m	440
	<u>Expansion joints with bitumen-impregnated softboard between vertical concrete surfaces</u>		
8	10mm Joints not exceeding 300mm high or wide	m	440
	<u>Saw cut joints</u>		
9	30 x 3mm Saw cut joints in top of concrete	m	440

Carried to Collection

Section No. 3
Bill No. 1
Concrete, Formwork and Reinforcement

R

Section No. 3
Bill No. 1
Concrete, Formwork and Reinforcement

COLLECTION

Total Brought Forward from Page No.

**Page
No**

101

102

103

Amount

Carried Forward to Summary of Section No. 3

Section No. 3
Bill No. 1
Concrete, Formwork and Reinforcement

R

Item No	Quantity	Rate	Amount
<p><u>BILL NO. 2</u></p>			
<p><u>MASONRY</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>Trade names</u></p>			
<p>Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description</p>			
<p><u>Samples</u></p>			
<p>Contractor to allow in the rates for the provision of samples where so required by the Principal Agent</p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p><u>BLOCKWORK</u></p>			
<p><u>Concrete masonry units</u></p>			
<p>Blocks are to be either solid or hollow modular dense concrete masonry units having a compressive strength of 14MPa</p>			
<p>Carried to Collection</p>			
<p>Section No. 3 Bill No. 2 Masonry</p>			
			R

Blockwork

Blockwork shall comply with SANS 10145 "Concrete Masonry Construction" Surfaces to be plastered shall have joints raked out to 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

SUPERSTRUCTURE

Blockwork in class ii mortar with cores filled solid with mortar

1	90mm Walls	m2	528
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2	190mm Walls	m2	254
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Bagging of 1:3 cement and sand mixture

3	On brick walls	m2	295
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Joint forming material in movement joints

4	12mm Fibre board built in vertically between brick skins	m2	82
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Brickwork reinforcement

5	75mm Wide reinforcement built in horizontally	m	155
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6	150mm Wide reinforcement built in horizontally	m	155
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Turning pieces

7	230mm Wide turning piece to lintels etc	m	184
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Carried to Collection

R

Section No. 3
Bill No. 2
Masonry

<u>Galvanised hoop iron cramps, ties, etc</u>		
8	3 x 30mm Wall tie 375mm long with one end cast into concrete and other end built into brickwork	No 280
<u>Air bricks etc</u>		
9	229 x 76mm Clay vermin proof air brick	No 26
<u>SUNDRIES</u>		
10	180mm Wide turning piece to lintels etc	m 184
<u>SUPERSTRUCTURE</u>		
<u>Blockwork in class ii mortar with cores filled solid with mortar</u>		
11	90mm Walls	m2 405
12	190mm Walls	m2 793
<u>SUNDRIES</u>		
13	180mm Wide turning piece to lintels etc	m 40

Carried to Collection

Section No. 3
Bill No. 2
Masonry

R

Section No. 3

Bill No. 2

Masonry

COLLECTION

Total Brought Forward from Page No.

**Page
No**

105

106

107

Amount

Carried Forward to Summary of Section No. 3

Section No. 3

Bill No. 2

Masonry

R

Item No	<u>BILL NO 3</u>	Quantity	Rate	Amount
	<u>WATERPROOFING</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>Trade names</u>			
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	<u>Samples</u>			
	Contractor to allow in the rates for the provision of samples where so required by the Principal Agent			
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>			
	<u>One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u>			
1	In walls	m2	255	
	<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>			
2	Under surface beds	m2	769	
	<u>Two coats "Brixéal" bitumen emulsion waterproof coating</u>			
3	On bagged brick walls	m2	340	
	<u>WATERPROOFING TO ROOFS, BASEMENTS, ETC</u>			
	Carried to Collection			R
	Section No. 3 Bill No. 3 Waterproofing			

<u>4mm "Derbigum SP" fully bonded waterproofing</u>		
4	On flat roofs not exceeding 25 degrees from the horizontal	m2 215
5	On turn-ups and turn-downs exceeding 500mm high	m2 150
6	30 x 30mm Triangular fillet	m 174
<u>"Duraflex" or equally approved cementitious flexible waterproofing slurry including saturation membrane with 75mm side and 100mm end laps applied in accordance with manufacturer's specifications.</u>		
7	On shower walls	m2 340
8	On shower floors	m2 49
<u>JOINT SEALANTS ETC</u>		
<u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc</u>		
9	10 x 10mm In saw cut joints in floors	m 1,320
<u>Clear silicone sealant</u>		
10	In waterproofing joints between fittings and walls (Provisional)	m 5,511
11	In joint sealing and pointing between external aluminium window frames and facebrick surround(Provisional)	m 5,511
<u>ENGINEERING</u>		
<u>One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"</u>		
12	Under surface beds	m2 769
<u>Two coats "Brixal" bitumen emulsion waterproof coating</u>		
13	On bagged brick walls	m2 168

Carried to Collection

R

Section No. 3
Bill No. 3
Waterproofing

**WATERPROOFING TO ROOFS, BASEMENTS,
ETC**

4mm "Derbigum SP" fully bonded waterproofing

14	On turn-ups and turn-downs exceeding 500mm high	m2	168
15	30 x 30mm Triangular fillet	m	120

JOINT SEALANTS ETC

**"Thioflex 600" two-part grey polysulphide sealing
compound including backing cord, bond breaker,
primer, etc**

16	10 x 10mm In saw cut joints in floors	m	180
17	10 x 10mm In expansion joints in floors	m	180

Carried to Collection

Section No. 3
Bill No. 3
Waterproofing

R

Section No. 3

Bill No. 3

Waterproofing

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

109

110

111

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 3

Waterproofing

Item No		Quantity	Rate	Amount
	<u>BILL NO. 4</u>			
	<u>ROOF COVERINGS, ETC</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>Trade names</u>			
	Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description			
	<u>Samples</u>			
	Contractor to allow in the rates for the provision of samples where so required by the Principal Agent			
	<u>PROFILED METAL SHEETING AND ACCESSORIES</u>			
	Where roof coverings are fixed on top of rigid board insulation to purlins etc, descriptions of roof coverings shall include thereforNote that sheeting is also available in corten steel, stainless steel, copper and aluminium			
	<u>0,53mm Zincalume roof sheeting steel resin coated, AZ150 minimum (150g/m2) coating mass, grade 550 (minimum yield strength of 550 Mpa) and accessories fixed to timber purlins :</u>			
1	Roof coverings with pitches not exceeding 25 degrees	m2	997	
2	Head wall flashings 600mm girth	m	189	
3	Apex Flash 462mm girth 1 times bent including Serrated Closers and PolyClosers.	m	30	
	Carried to Collection			R
	Section No. 3			
	Bill No. 4			
	Roof Coverings			

Zincalume Ridge capping:

4	Ridge capping to suit roof profile	m	89
5	Sondor corrugated pattern polyclosers at ridge and eaves.	m	89

ROOF AND WALL INSULATION

'SISALATION FR 405' underlay over trusses and under purlins on training tape - to be Class B/B1/2/H&V. in accordance with SANS 10400 Part T

6	50mm approved High Density Polystyrene Insulation beveled insulation boards laid horizontally over on engineered trusses and secured with screws through purlins.	m2	997
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Carried to Collection

Section No. 3
Bill No. 4
Roof Coverings

R

Section No. 3

Bill No. 4

Roof Coverings

COLLECTION

Total Brought Forward from Page No.

**Page
No**

113

114

Amount

Carried Forward to Summary of Section No. 3

Section No. 3
Bill No. 4
Roof Coverings

R

Item No	Quantity	Rate	Amount
<p><u>BILL NO. 5</u></p>			
<p><u>CARPENTRY AND JOINERY</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>Trade names</u></p>			
<p>Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description</p>			
<p><u>Samples</u></p>			
<p>Contractor to allow in the rates for the provision of samples where so required by the Principal Agent</p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p><u>Particle board:</u></p>			
<p>Particle board shall comply with the following specifications:</p>			
<p>SABS EN 317 Parts 1 to 7 for exterior, interior and flooring type particleboard</p>			
<p><u>Joinery:</u></p>			
<p>Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc</p>			
<p>Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes</p>			
<p>Carried to Collection</p>			
<p>Section No. 3 Bill No. 5 Carpentry and Joinery</p>			
			R

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

Decorative laminates are to comply with SABS 1S0 4586 and SABS 1405

ROOFS ETC

Plate nailed timber roof truss construction

Note : Timber roof trusses are to comply with SABS Code of Practice 0243. Patent manufactured trusses by GANGNAIL or other equal approved truss design. The design, manufacture and erection of timber trusses to be done in accordance with the Engineer's instructions and TR 1 & TR 2 certificate must be provided on completion

The following is applicable in respect of roof trusses:

Trusses are at maximum 1200mm centres. Roof covering is galvanized roof sheeting on timber purlins. Ceilings are 6.4mm Rhinoboard ceiling on 38 x 50mm brandering.

The dimensions in the descriptions of the trusses are nominal and actual measurements are to be obtained from the architect and/or the site before design or fabrication commences

ROOFS, ETC

Carried to Collection

Section No. 3
Bill No. 5
Carpentry and Joinery

R

<u>Sawn softwood</u>				
Complete roof construction Hip and Valley at L- intersection to double pitched roof, 769m ² measured on flat overall on plan at high of 9600mm high overall, including part trusses, jack rafters, hip and valley rafters, permanent bracing, ec (purlins ,battens elsewhere) and Allow for bracing, cross bracing, connecting clips, fixing brackets, hurricane clips, etc., as required for fixing in position of roof trusses as described in accordance with the manufacturer's instructions				R 565,000.00
1	38 x 114 mm Wall plates	m	158	
<u>Sawn softwood grade 4</u>				
2	50 x 75mm Purlins	m	1,173	
<u>Wrought softwood grade 4</u>				
3	76 x 76mm Splayed purlins	m	173	
<u>EAVES, VERGES, ETC</u>				
<u>Medium density plain fibre-cement fascias and barge boards</u>				
4	12 X 225 mm Fascias boards	m	158	
<u>DOORS, ETC</u>				
<u>Wrought meranti doors hung to steel frames</u>				
5	40mm Framed door 813 x 2032mm high of 115mm top rail and stiles, 115mm middle rail and 212 mm bottom rail, with 23 x 552mm high solid fielded bottom panel and open top panel 1069mm high rebated all round including 12 x 12mm glazing beads on one side	No	59	
<u>Semi solid flush doors with 3,2mm standard hardboard covering on both sides hung to steel frames</u>				
6	40mm Door 813 x 2032mm high	No	160	
Carried to Collection				R
Section No. 3				
Bill No. 5				
Carpentry and Joinery				

Section No. 3

Bill No. 5

Carpentry and Joinery

COLLECTION

Total Brought Forward from Page No.

**Page
No**

116

117

118

Amount

Carried Forward to Summary of Section No. 3

Section No. 3

Bill No. 5

Carpentry and Joinery

R

Item No	Quantity	Rate	Amount
<p><u>BILL NO. 6</u></p>			
<p><u>CEILING, PARTITION AND ACCESS FLOORING</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>Trade names</u></p>			
<p>Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description</p>			
<p><u>Samples</u></p>			
<p>Contractor to allow in the rates for the provision of samples where so required by the Principal Agent</p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>Descriptions</u></p>			
<p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p>			
<p>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</p>			
<p>Carried to Collection</p>			
<p>Section No. 3 Bill No. 6 Ceilings, Partitions and Access Flooring</p>			
			R

Proprietary suspended ceilings

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)

"Rhino-Drywall" partition systems

"Rhino-Drywall" partitions shall comprise 63,5mm top and bottom galvanised steel tracks with 63,5mm galvanised steel vertical studs at maximum 600mm centres, friction fitted or pop-riveted to the top and bottom tracks with similar additional vertical studs as necessary at abutments, ends, etc and covered as described with wallboard screwed to studding with "Drywall" screws at maximum 220mm centres. Boards shall be butt jointed and finished with "Rhino" tape and "Readymix D" jointing compound allin accordance with the manufacturer's instructions, complete with flat section aluminium skirtings. Intersections and abutments are measured separately and descriptions shall be deemed to include any additional studs, corner beads, jointing compound

CEILINGS, ETC

Particle board:

Particle board shall comply with the following specifications:

SABS EN 317 Parts 1 to 7 for exterior, interior and flooring type particleboard

"Aerolite" insulation

1	50mm Insulation closely fitted and laid on top of brandering between roof timbers, etc	m2	509
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NAILED UP CEILINGS

Carried to Collection

Section No. 3
Bill No. 6
Ceilings, Partitions and Access Flooring

R

4 mm "Everite Cladit" high density plain Pressed Nutec-cement boards or equally approved with 32 x 10mm wrought softwood cover strip over joints

2 Ceilings including 38 x 50 mm sawn softwood
brandering at 400mm centres in one direction only. m2 509

3 Extra over ceiling for opening for 650 x 650mm trap door
complete with trimmers, frame, cross branders, ceiling
board, hinges, etc as described (Provisional No 15

Rhino" gypsum plasterboard cornices

4 70 x 75 mm Coved cornices m 1,711

Carried to Collection

R

Section No. 3
Bill No. 6
Ceilings, Partitions and Access Flooring

Section No. 3

Bill No. 6

Ceilings, Partitions and Access Flooring

COLLECTION

Total Brought Forward from Page No.

**Page
No**

120

121

122

Amount

Carried Forward to Summary of Section No. 3

Section No. 3

Bill No. 6

Ceilings, Partitions and Access Flooring

R

Item No		Quantity	Rate	Amount
	<u>BILL NO. 7</u>			
	<u>IRONMONGERY</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>Trade names</u>			
	Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Finishes to ironmongery</u>			
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded			
	<u>HINGES, BOLTS, ETC</u>			
1	100 mm Brass hinge	No	320	
	<u>LOCKS</u>			
2	Two-lever CZ 69424955 lockset	No	160	
3	Three-lever CZ 69424955lockset	No	59	
	Carried to Collection			R
	Section No. 3 Bill No. 7 Ironmongery			

SUNDRIES

4	38mm Diameter rubber door stop.	No	219
5	Door Holder	No	219

HANDLES

6	<u>Lever handles</u>	Pairs	219.0
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BATHROOM FITTINGS

7	Single Toilet Roll Holder - Vitreous china - 204x160x90mm with plastic Spindle	No	58
8	Single Soap Dish Holder - Vitreous china - 170x170x100mm with plastic Spindle	No	58
9	Builders shower tray square - white (754354)	No	58

Carried to Collection

Section No. 3
Bill No. 7
Ironmongery

R

Section No. 3

Bill No. 7

Ironmongery

COLLECTION

Total Brought Forward from Page No.

**Page
No**

124

125

Amount

Carried Forward to Summary of Section No. 3

Section No. 3
Bill No. 7
Ironmongery

R

Item No	Quantity	Rate	Amount
<p><u>BILL NO. 8</u></p>			
<p><u>METALWORK</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>Trade names</u></p>			
<p>Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description</p>			
<p><u>Samples</u></p>			
<p>Contractor to allow in the rates for the provision of samples where so required by the Principal Agent</p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p>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</p>			
<p><u>Descriptions</u></p>			
<p>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</p>			
<p>Carried to Collection</p>			
<p>Section No. 3 Bill No. 8 Metalwork</p>			
			R

NOTE : Pressed steel door frames shall be supplied with three 100mm steel washered brass butt hinges and frames for two leaved doors with three pairs of 100mm steel washered brass butt hinges

Transomes for fanlights shall be fitted with a pair of 75mm steel washered butt hinges

STEEL WELDED SCREENS, GATES, ETC

Screens and gates

1	Single gate 900 x 2000mm high of 50 x 6mm flat section outer frame and 25 x 25 x 3mm angle section inner frame welded to outer frame, filled in with "Mentis Flatex" type 352 expanded metal panel fixed all round to inner frame with 20 x 20 x 3mm angle section fixing beads bolted on with and including 6mm diameter bolts at 500mm centres and fitted with a pair of suitable hinges welded to post and lockable sliding bolt with keep in gate post	No	3
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GALVANISED PRESSED STEEL DOOR FRAMES

1,2mm Double rebated frames suitable for half brick walls

2	Frame for door 813 x 2032mm high	No	160
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1,6mm Double rebated frames suitable for one brick walls

3	Frame for door 813 x 2032mm high	No	149
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PRESSED STEEL TRANSFORMER ROOM DOORS AND FRAMES

Galvanised doors etc

4	X panda meter room door 900 x 2400mm high with rebated frame suitable for one brick wall	No	1
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Carried to Collection

Section No. 3
Bill No. 8
Metalwork

R

Galvanised balustrades to stairs and walkway

5 Allow a budgetary amount of R 255 000 (Two Hundred and Fifty five Thousand Rand) for restoration of galvanised raking, flat balustrades as per the Architects specification

Item

NATURAL ANODISED ALUMINIUM WINDOWS , DOORS ETC

All aluminium windows are to be manufactured by manufacturers who are members of AAAMSA. All aluminium systems to be approved by AAAMSA. All aluminium work is to be protected by covering with plastic sheeting fixed with low tack adhesive prior to leaving the factory. Plastic sheeting is to remain in place during construction. All glazing shall be in accordance with SABS 0400 - 1990, SABS 1263 - 1. All safety glazing materials (individual panes) shall be permanently marked. Such marking shall be visible after glazing process. If it is not marked, it is not safety glass.

Natural anodised aluminium windows glazed with 6mm safety glass and plugged to brickwork:

6	Window overall size 600 x 1200m high (W01)	No	4
7	Window overall size 1200 x 600m high (W02)	No	54
8	Window overall size 3000 x 600m high (W03)	No	2

NATURAL ANODISED ALUMINIUM LOUVRE UNITS

EPOXY POWDER COATED ALUMINIUM CLADDING

9 Provide the amount of One Million and Fifty Thousand For the fabrication, and installation of cladding by an approved sub contractor

Item

1,050,000.00

Carried to Collection

R

Section No. 3
Bill No. 8
Metalwork

Section No. 3

Bill No. 8

Metalwork

COLLECTION

Total Brought Forward from Page No.

**Page
No**

127

128

129

Amount

Carried Forward to Summary of Section No. 3

Section No. 3

Bill No. 8

Metalwork

R

Item No		Quantity	Rate	Amount
	<u>BILL NO. 9</u>			
	<u>PLASTERING</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>Trade names</u>			
	Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description			
	<u>Samples</u>			
	Contractor to allow in the rates for the provision of samples where so required by the Principal Agent			
	<u>GRANOLITHIC</u>			
	<u>Untinted granolithic, on concrete</u>			
1	40mm Thick on floors and landings	m2	2,804	
	<u>INTERNAL PLASTER</u>			
	<u>Cement plaster on brickwork</u>			
2	On walls	m2	9,137	
3	On concrete slabs	m2	2,804	
4	On sloping top of sills 1200mm wide	m	650	
	<u>EXTERNAL PLASTER</u>			
	Carried to Collection			R
	Section No. 3			
	Bill No. 9			
	Plastering			

Cement plaster on brickwork

5	On walls	m2	2,103
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Sundries

6	255 mm wide raised plaster band and 12 mm projection from the plastered surface in cement plaster 1 : 3, over masonry or concrete surface.	m	644
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7	40 mm x 12 mm size deep weather drip nosing in cement mortar proportion 1 : 3.	m	120
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Carried to Collection

Section No. 3
Bill No. 9
Plastering

R

Section No. 3

Bill No. 9

Plastering

COLLECTION

Total Brought Forward from Page No.

**Page
No**

131

132

Amount

Carried Forward to Summary of Section No. 3

Section No. 3

Bill No. 9

Plastering

R

Item No	<u>BILL NO. 10</u>	Quantity	Rate	Amount
	<u>PLUMBING AND DRAINAGE (PROVISIONAL)</u>			
	The tenderer is referred to the relevant Clauses in the Standard Preambles to All Trades and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities			
	<u>Trade names</u>			
	Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description			
	<u>Samples</u>			
	Contractor to allow in the rates for the provision of samples where so required by the Principal Agent			
	<u>RAINWATER DISPOSAL</u>			
	<u>uPVC gutters and rainwater pipes</u>			
1	100mm Half-round roof gutters	m	146	
2	Extra over eaves gutter for stopped end	No	24	
3	Extra over eaves gutter for outlet for 75mm diameter pipe	No	32	
4	75mm Diameter rainwater pipes in continuous lengths	m	312	
5	Extra over rainwater pipe for eaves offset 750mm projection	No	24	
6	Extra over rainwater pipe for shoe	No	36	
	<u>SANITARY FITTINGS</u>			
	Carried to Collection			
	Section No. 3 Bill No. 10 Plumbing and Drainage			R

<u>Stainless steel sanitary fittings</u>				
7	"Franke" Trendline SEB Grade 304 18/10 stainless steel single left hand end bowl drop-on sink, size 1050 x 535mm wide fitted to top of cabinet (cabinet elsewhere)	No	58	
<u>"Vaal"</u>				
8	510 x 405mm "Hibiscus" (code 7050) white vitreous china rounded lavatory basin with one taphole supported on and incl. two bolts (code 84467Z0)	No	58	
9	White vitreous china "Daisy" semi-close coupled 90 degree outlet open rim washdown pan (code 7514000) and matching "Hibiscus" vandal proof 6 litre cistern (code 710511) complete with front flush push button,	No	58	
10	Vitreous China - 170x170x100mm with plastic spindle	No	58	
11	900 x 900mm Square- White Code TRY-TUB-TRAY-WH-011 acrylic shower tray with waste outlet, bedded in position	No	58	
<u>WASTE UNIONS, ETC</u>				
12	32mm 301 CP waste union	No	116	
<u>TRAPS, ETC</u>				
13	40mm Anti-vac trap	No	58	
14	40mm Flexi butyl rubber trap with reseal "P" trap 40x50mm Deep seal combination "P" or S trap	No	58	
15	40mm Rough brass shallow seal shower 'P' trap with FI outlet and chrome plated grating (code 373)	No	58	
<u>TAPS, VALVES, ETC</u>				
<u>"Cobra"</u>				
16	15mm MI-206-15 Metsi bib tap, chrome-plated. Includes: hot and cold indices, 1/2 BSP male inlet, and flow straightener for flow aesthetics.	No	116	
Carried to Collection				
Section No. 3				
Bill No. 10				
Plumbing and Drainage				

R

17	15mm Code: FSK2W2ST-0GT0036 Stella sink mixer, wall-type, chrome. Includes: aerated swivel outlet, 1/2 BSP male inlets, and concealed connections.	No	58
18	15mm Light Pattern 1/2 chromium plated overhead shower arm with 1/2 ball joint	No	58
19	15mm Amazon concealed shower or bath mixer single lever 2 x G1/2 female inlet, G1/2 female outlet chrome.	No	219
20	15mm Non-return valve	No	290
21	22mm Non-return valve	No	116
<u>SANITARY PLUMBING</u>			
<u>uPVC pipes</u>			
22	40mm Pipes	m	116
23	50mm Pipes	m	383
24	110mm Pipes	m	87
<u>Extra over uPVC pipes for uPVC fittings</u>			
25	40mm Adaptor	No	58
26	50mm Adaptor	No	116
27	40mm Bend	No	116
28	50mm Bend	No	174
29	110mm Bend	No	145
30	110mm Pan connector	No	58
31	110mm Access bend	No	116
32	110mm 'GI two-way' vent valve	No	15
<u>Sundries</u>			
33	Testing waste pipe system	No	58

Carried to Collection

R

Section No. 3
Bill No. 10
Plumbing and Drainage

<u>WATER SUPPLIES</u>			
<u>Class O copper pipes</u>			
34	15mm Pipes	m	290
35	22mm Pipes	No	1,044
<u>Extra over class O copper pipes for capillary fittings</u>			
36	15mm Fittings	No	232
37	22mm Fittings	No	696
<u>Extra over class O copper pipes for conex compression fittings</u>			
38	15mm Fittings	No	58
39	22mm Fittings	No	174
<u>Copper overflow and service pipes</u>			
40	15mm Service pipes 350 mm girth	No	116
41	20mm Service pipes 350mm girth	No	116
<u>TESTING</u>			
42	Testing water pipe system		Item
<u>ELECTRIC WATER HEATERS</u>			
<u>Geyser mounted horizontally on roof timbers</u>			
43	100 Litre geyser	No	58
44	0.6mm Galvanised sheet iron tray size 1350 x 750mm with rivetted and soldered seams and joints turned up all round to form kerb 75mm high with beaded edge,including outlet with nozzle for 50mm diameter overflow pipe and fix in position	No	58
45	40 mm HDPE black polythene overflow pipe fixed to timber roof trusses.	m	290
Carried to Collection			
Section No. 3 Bill No. 10 Plumbing and Drainage			R

46 38mm Sawn softwood boarding for geyser platform
formed of 38 x 228mm boards butt-jointed and nailed to
truss tie beams

m2

56

Carried to Collection

Section No. 3
Bill No. 10
Plumbing and Drainage

R

Section No. 3

Bill No. 10

Plumbing and Drainage

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

134

135

136

137

138

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 10

Plumbing and Drainage

Item No	<u>BILL NO. 11</u>	Quantity	Rate	Amount
	<u>GLAZING</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>Trade names</u>			
	Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description			
	<u>Samples</u>			
	Contractor to allow in the rates for the provision of samples where so required by the Principal Agent			
	<u>GLAZING</u>			
	<u>6.38mm Clear laminated safety glass fixed with aluminium beads to window frames</u>			
1	Panels exceeding 0,1m ² and not exceeding 0.5m ²	m ²	155	
	<u>6.38mm Obscure laminated safety glass fixed with aluminium beads to window frames</u>			
2	Panels exceeding 0,1m ² and not exceeding 0.5m ²	m ²	105	
	<u>MIRRORS</u>			
	<u>6mm Silvered float glass copper backed mirrors with polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork</u>			
3	Mirror 450 x 600mm x 6mm high with four screws	No	58	
	Carried Forward to Summary of Section No. 3			
	Section No. 3 Bill No. 11 Glazing			R

Item No		Quantity	Rate	Amount
	<u>BILL NO. 12</u>			
	<u>TILING</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>Trade names</u>			
	Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description			
	<u>Samples</u>			
	Contractor to allow in the rates for the provision of samples where so required by the Principal Agent			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Descriptions Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding			
	<u>WALL TILING</u>			
	<u>152 x 152 x 5mm White glazed ceramic tiles</u>			
1	On walls	m2	329	
2	In splashbacks	m2	58	
	Carried Forward to Summary of Section No. 3			R
	Section No. 3			
	Bill No. 12			
	Tiling			

Item No	<u>BILL NO. 13</u>	Quantity	Rate	Amount
	<u>PAINTWORK</u>			
	Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.			
	<u>Trade names</u>			
	Wherever trade names are specified in clauses, headings or item descriptions in this bill, the words 'or equal and approved' are deemed to be included in the relevant clause, heading or item description			
	<u>Samples</u>			
	Contractor to allow in the rates for the provision of samples where so required by the Principal Agent			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	Descriptions of paintwork shall be deemed to include for all cutting in			
	<u>PAINTWORK, ETC TO NEW WORK ON</u>			
	<u>ON FLOATED PLASTER</u>			
	<u>Prepare, stop and apply two filler coat of paint 100-M370-2800 or equal approved and finish with two coats interior emulsion paint</u>			
1	On internal walls	m2	9,137	
2	On concrete slabs	m2	2,804	
3	On sloping top of sils 1200mm wide	m	295	
	Carried to Collection			R
	Section No. 3 Bill No. 13 Painting			

4	<p><u>Prepare, stop and apply two filler coat of paint 100-M370-2800 or equal approved and finish with two coats interior emulsion paint</u></p> <p>On external walls</p>	m2	2,103
<p><u>ON PLASTER BOARD</u></p>			
5	<p><u>One coat Fillercoat' thinned 15% with 'An Overcoating time of 4 hours' and Finish with two coats Pearl glo Water Clean-up (D190-LINE)' paint or equally approved</u></p> <p>On ceilings</p>	m2	769
<p><u>ON CONCRETE FLOORS</u></p>			
6	<p><u>Internal - A coloured, cement-based, self-levelling floor covering for application onto wood floated screeds. To produce a 2mm smooth, decorative layer that is unaffected by rising damp. For interior use only. All to manufacturers specification. In accordance with SANS 10109, SANS 50197, SANS 1083, SANS 50197</u></p> <p>On floors</p>	m2	828
<p><u>ON METAL SURFACES</u></p>			
7	<p><u>One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel</u></p> <p>Door frames</p>	m2	399

Carried to Collection

Section No. 3
Bill No. 13
Painting

R

Section No. 3

Bill No. 13

Painting

COLLECTION

Total Brought Forward from Page No.

**Page
No**

142

143

Amount

Carried Forward to Summary of Section No. 3

Section No. 3

Bill No. 13

Painting

R

SECTION SUMMARY - Building Works

Bill No		Page No	Amount
1	Concrete, Formwork and Reinforcement	104	
2	Masonry	108	
3	Waterproofing	112	
4	Roof Coverings	115	
5	Carpentry and Joinery	119	
6	Ceilings, Partitions and Access Flooring	123	
7	Ironmongery	126	
8	Metalwork	130	
9	Plastering	133	
10	Plumbing and Drainage	139	
11	Glazing	140	
12	Tiling	141	
13	Painting	144	
Carried to Final Summary			
Section No. 3			R

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 1</u></p> <p><u>PRELIMINARY AND GENERAL</u></p> <p><u>NOTES</u></p> <p>i) Preliminaries for the Project should be priced with Bill no 1, Preliminaries. If in the event of the electrical contractor being a sub-contractor to the main contractor, made with this section for the pricing of the provision is preliminaries applicable to this portion of the contract.</p> <p>ii) It should however be noted that the amount for preliminaries priced in this section will be a fixed amount and will under no circumstances be adjusted.</p> <p><u>SECTION A: GENERAL CONDITIONS OF CONTRACT</u></p>			
1	<p>A1 General (clause 1) F: _____ V: _____ T: _____</p>			
		Item		
2	<p>A2 Basis of contract (clause 2) F: _____ V: _____ T: _____</p>			
		Item		
3	<p>A3 Employer's Agent (clause 3) F: _____ V: _____ T: _____</p>			
		Item		
4	<p>A4 Contrators general obligations (clause 4) F: _____ V: _____ T: _____</p>			
		Item		
	Carried to Collection			
	<p>Section No. 4 Bill No. 1 Preliminaries and General</p>			
			R	

5 **A5** Time and related matters (clause 5) - As referred to in the Contract Data under Special Condition of Contract. The Contract Period shall be deemed to include all Non Working Days, Special Non - Working Days and the year-end Builders Annual Industry Holiday Periods.

F: _____ V: _____
T: _____

Item

6 **A6** Payment and related matters (clause 6)

F: _____ V: _____
T: _____

Item

7 **A7** Quality and related matters (clause 7)

F: _____ V: _____
T: _____

Item

8 **A8** Risks and related matters (clause 8)

F: _____ V: _____
T: _____

Item

9 **A9** Terminations of contract (clause 9)

F: _____ V: _____
T: _____

Item

10 **A10** Claims and disputes (clause 10)

F: _____ V: _____
T: _____

Item

**SECTION B: SANS 1921-1:2004 (Edition 1):
CONSTRUCTION AND MANAGEMENT
REQUIREMENTS FOR WORKS CONTRACTS:
PART 1**

Carried to Collection

R

Section No. 4
Bill No. 1
Preliminaries and General

Section No. 4

Bill No. 1

Preliminaries and General

COLLECTION

Total Brought Forward from Page No.

**Page
No**

146

147

Amount

Carried Forward to Summary of Section No. 4

Section No. 4

Bill No. 1

Preliminaries and General

R

Item No	<u>BILL NO. 2</u>	Quantity	Rate	Amount
	<u>ELECTRICAL INSTALLATION</u>			
	The tenderer is referred to the relevant Clauses in the Standard Preambles to All Trades and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities			
	<u>NEW DISTRIBUTION BOARDS</u>			
	Supply and installation and commissioning of Distribution Boards as specified including making off all wire connections (flush mounted board not larger than 1500mm x 1500mm) Note: External wiring, conduit, armoured cable and terminations given elsewhere			
	All Distribution Boards shall comply fully with the Standard Specification Part A and shall comply fully with SANS 10142-1 with latest Ammendments			
1	Distribution Board Supply	No	72	
2	Distribution Board Install	No	72	
	<u>PREPAID METERS</u>			
	Apply for installation of prepaid meters			
3	60A single phase prepaid meters Supply	No	72	
4	60A single phase prepaid meters Install	No	72	
	<u>LIGHTS</u>			
	Supply and Install isolators, position will be on drawings, inside			
5	RLCF/ES A60-E27-15W-4K LAMP Equal or equivalent Supply	No	369	
	Carried to Collection			R
	Section No. 4 Bill No. 2 Electrical Installation			

6	RLCF/ES A60-E27-15W-4K LAMP Equal or equivalent Install	No	369
<u>TEST AND CERTIFICATE OF COMPLIANCE:</u>			
The Contractor shall issue a certificate of Compliance for each distribution board and associated installation			
7	New db	No	72
<u>CONDUIT TERMINATIONS:</u>			
PVC conduit terminations to distribution boards including adaptor and locknut			
8	20mm	m	3,468
9	32mm	m	10
10	25mm	m	10
<u>CIRCUIT TERMINATIONS:</u>			
Terminations of circuit into distribution boards including lugs, cable straps, etc. (Cable terminations measured elsewhere)			
11	single phase + E up to 6mm ²	No	3,468
<u>PVC CONDUIT INSTALLATION</u>			
<u>Conduit:</u>			
Supply and Installation of rigid PVC conduits including fixings, couplings, bends, draw boxes, waste, etc. Installed on surface on wall, on ceiling void, chased in, or cast into concrete			
12	20 mm PVC	m	8,500
<u>CONDUIT BOXES & TERMINATIONS:</u>			
Terminate and connect conduit boxes without covers installed on surface in ceiling void, chased in or cast into brickwork or in concrete			
Carried to Collection			
Section No. 4 Bill No. 2 Electrical Installation			R

13	20 mm PVC round 1 - 4 way	No	150
14	50 x 100mm flush box	No	85
15	100 x 100mm flush box	No	434
<u>CONDUCTORS:</u>			
PVC insulated copper conductors drawn into conduit, wiring trunking or power skirting conduit, wiring trunking or power skirting			
16	2.5 mm ² PVC	m	28,500
17	1,6mm draw wire	m	3,468
<u>SWITCHED SOCKET OUTLETS:</u>			
Flush mounted socket outlets complete with cover plate but excluding wall boxes			
18	16A 3 pin flush sso	No	558
19	30A isolators	No	60
<u>SWITCHED SOCKET OUTLETS:</u>			
Flush mounted complete with cover plates but excluding wall outlet box.			
20	16A 1 lever 1 way	No	285
21	16A 2 lever sw.	No	48

Carried to Collection

Section No. 4
Bill No. 2
Electrical Installation

R

Section No. 4

Bill No. 2

Electrical Installation

COLLECTION

Total Brought Forward from Page No.

**Page
No**

149

150

151

Amount

Carried Forward to Summary of Section No. 4

Section No. 4

Bill No. 2

Electrical Installation

R

Item No		Quantity	Rate	Amount
	<u>BILL NO. 3</u>			
	<u>RETICULATION</u>			
	The tenderer is referred to the relevant Clauses in the Standard Preambles to All Trades and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities			
	<u>LUMINAIRES:</u>			
	Take delivery, store, protect, erect, fix, connect and lamp the following luminaires, outside lighting			
1	RLCF/ES A60-E27-15W-4K LAMP Equal or equivalent	No	58	
	<u>LOW VOLTAGE CABLE & INSTALLATION</u>			
	Supply, delivery and installation of 600/1100V PVC/SWA/ECC/PVC Copper cables as specified, installed in trench or on surface or on cable tray or pulled through sleeves (excluding cost to supply and install tray)			
2	185 mm ² x 4 core	m	45	
3	25 mm ² x 2 core	m	3,152	
4	16 mm ² x 4 core	m	2,665	
	<u>LOW VOLTAGE CABLE TERMINATIONS:</u>			
	Terminations of Low Voltage PVC/SWA/PVC cable complete with glands, shrouds, lugs and connection			
5	185 mm ² x 4 core	No	2	
6	25 mm ² x 2 core	No	18	
7	16 mm ² x 4 core	No	56	
	Carried to Collection			R
	Section No. 4 Bill No. 3 Reticulation			

<u>TRENCHING FOR CABLES:</u>			
Trenching for PVC/SWA/PVC/ cable as per the specificattion			
8	50 mm PVC	m	165
<u>ELECTRICAL CONNECTION :</u>			
The Contractor shal issue a certificate of Compliance for each distribution board and associated installation			
9	Provide the amount of Seven Hundred and Fifty Thousand For electrical upgrade	Item	750,500.00
10	Profit	Item	75,500.00
11	Attendance	Item	37,500.00
<u>LIGHTNING PROTECTION:</u>			
12	Provide the amount of Seven Hundred Fifty Thousand For Protection System	Item	750,000.00
<u>COMMISSIONING AND TESTING:</u>			
13	Commissioning and Testing of the entire new Installation, including the Provision of a Compliance Certificate and O & M Manuals	Item	55,000.00
<u>GUARANTEE AND MAINTENANCE:</u>			
14	Guarantee and maintenance for the complete installation of the Electrical Installation including fittings, materials and workmanship for a period of TWELVE MONTHS (12) after date of completion and handover	Item	75,000.00
<u>AS BUILT DRAWINGS:</u>			
15	Provision for 2 sets of 'As Built Drawings'	Item	20,000.00
<u>MANHOLES</u>			
16	Build a 600mm x 600mm	No	5
Carried to Collection			
Section No. 4			
Bill No. 3			
Reticulation			
			R

CABLE TRAY

17 The contractor to supply and install

m

250

Carried to Collection

Section No. 4
Bill No. 3
Reticulation

R

Section No. 4

Bill No. 3

Reticulation

COLLECTION

Total Brought Forward from Page No.

**Page
No**

153

154

155

Amount

Carried Forward to Summary of Section No. 4

Section No. 4

Bill No. 3

Reticulation

R

SECTION SUMMARY - Electrical Works

Bill No		Page No	Amount
1	Preliminaries and General	148	
2	Electrical Installation	152	
3	Reticulation	156	
	Carried to Final Summary		R
	Section No. 4		

Item No	Quantity	Rate	Amount
<p><u>BILL NO 1</u></p>			
<p><u>EXTERNAL WORKS</u></p>			
<p><u>PREAMBLES</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>SUPPLEMENTARY PREAMBLES</u></p>			
<p><u>Descriptions</u></p>			
<p>For full descriptions and supplementary preambles applicable to this section, see also previous bills</p>			
<p><u>PREAMBLES</u></p>			
<p>Tenderers are referred to the relevant clauses in the Model Preambles for Trades (Latest Edition) as published by the Association of South African Quantity Surveyors and to the Supplementary Preambles which are incorporated in these Bills of Quantities before pricing this schedule.</p>			
<p><u>Descriptions</u></p>			
<p>For full descriptions and supplementary preambles applicable to this section, see also previous bills</p>			
<p><u>PREAMBLES</u></p>			
<p><u>Excavation in earth not exceeding 2m deep</u></p>			
<p>For full descriptions and supplementary preambles applicable to this section, see also previous bills</p>			
<p>Carried to Collection</p>			
<p>Section No. 5 Bill No. 1 External works</p>			
			R

Nature of ground

A soil investigation will be carried out on site by the engineer, and the report will be annexed to these bills of quantities. Descriptions of all excavations shall be deemed to include all ground conditions classified as "earth" described in the annexed report and where conditions of a more difficult character are indicated these are separately measured

Carting away of excavated material

Description of carting away of excavated material shall deemed to include loading of excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site.

Concrete pipes

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

u PVC pipes and fittings

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings Soil, waste and vent pipes and fittings shall be solvent weld jointed

u PVC 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 socket fittings Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bens shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints with solvent welded uPVC loose socket fittings

Exposed concrete surfaces

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

Carried to Collection

Section No. 5
Bill No. 1
External works

R

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 The selection of the imported "borrow pit" pipe bedding material for class or flexible pipe beddings shall be done by the contractor, and all the tendered rates for the imported material shall be deemed to include for the necessary selection of material. The selection of the imported "borrow pit" pipe bedding material for class or flexible pipe beddings shall be done by the contractor, and all the tendered rates for the imported material shall be deemed to include for the necessary selection of material. 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 LB : Bedding (Pipes) Unless otherwise described, bedding of rigid pipes shall be class B bedding Unless otherwise described, bedding of rigid pipes shall be class B bedding

Densyl petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd or equally approved

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 manufacturers instructions, including all mastic tape "Layflat" sheeting, securing of same, etc. Unless otherwise described, bedding of rigid pipes shall be class B bedding

ALTERATIONS

REMOVAL OF EXISTING WORK

Carried to Collection

Section No. 5
Bill No. 1
External works

R

1	<p><u>Inspect, disconnect including the dis commissioning of the existing in the hostel</u></p> <p>150mm thick mesh reinforced concrete surface beds including all the underground foundation</p>		Item	
	<p><u>Taking out and removing concrete apron or paving kerbs and surfacing</u></p>			
2	<p>Break up and cart away concrete apron or paving and lay works 150mm thick bedding including concrete kerbs</p>	m2	216	
3	<p>Precast concrete vertical kerbs with 150 x 150mm cast in-situ concrete apron along sides of existing road including necessary excavation, backfilling and compaction</p>	m	18	
<p><u>STORM WATER DRAINAGE</u></p>				
<p><u>EXCAVATION, FILLINGS, ETC</u></p>				
<p><u>Excavate in all materials for pipe tranches and use for backfill, compact, and dispose of surplus material.</u></p>				
4	<p>Excavation in earth not exceeding 1m deep for pipe tranches</p>	m3	48	
5	<p>Excavation in earth exceeding 1m not exceeding 2m deep for pipe tranches</p>	m3	12	
<p><u>Extra over trench and hole excavation in earth for excavation in</u></p>				
6	<p>Soft rock</p>	m3	6	
7	<p>Hard rock</p>	m3	3	
<p><u>Extra over all excavations for carting away</u></p>				
8	<p>Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor</p>	m3	32	
<p><u>FILLING ETC</u></p>				
<p>Carried to Collection</p>				
<p>Section No. 5 Bill No. 1 External works</p>				<p>R</p>

Earth filling supplied by the contractor, compacted to 93% Mod AASHTO density

9	Backfilling to trenches, holes, etc	m3	28
10	Selected granular filling in bedding under and filling around the pipes	m3	32

Unreinforced concrete cast against excavated surfaces

11	Unreinforced concrete bedding under pipes	m3	22
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STORM WATER DRAINAGE

uPVC drainage pipes

Supply, lay, bed and test stormwater upvc pipe

12	200mm Pipes laid in trenches (trenches elsewhere)	m	80
13	200mm Pipes exceeding 1m not exceeding 2m laid in trenches (trenches elsewhere)	m	20
14	200mm Bends	No	16
15	200mm Junctions	No	20

V-DRAINS

Restricted excavation in earth not exceeding 2m deep in pick able ground

16	Excavation not exceeding 2m deep for v-drains and stockpile	m3	77
17	Rip & re-compact 150mm in-situ layer v-drains to 95% Mod.AASHTO	m3	255

UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES

25Mpa /19mm concrete

18	V-Drains (fitted with 250micron polyethylene underlay sheeting)	m3	33
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Carried to Collection

Section No. 5
Bill No. 1
External works

R

<u>Unformed surface finishes</u>			
19	V-Drains	m2	255
<u>Smooth formwork to</u>			
20	Vertical sided of drain	m2	51
<u>MANHOLE-STORMWATER INLET</u>			
<u>Bricks stormwater inlet including cast iron dished grating and frame</u>			
21	Manhole 1370mm long x 1370mm wide x 2000mm deep overall to be constructed according the metro standards	No	5
22	450 x 450mm heave duty cast iron dished grating and frame	No	5
<u>SOIL DRAINAGE</u>			
<u>uPVC drainage pipes</u>			
<u>Heavy duty (class 34) PVC soil drainage pipes including all excavations, backfilling, carting away of excess material and bedding</u>			
23	160mm Pipes laid in and including trenches not exceeding 1m deep	m	120
24	160mm Pipes laid in and including trenches exceeding 1m not exceeding 2m deep	m	60
25	160mm Bends	No	30
26	160mm Access bends	No	20
27	160mm Junctions	No	35
28	160mm Access junctions	No	60
29	160mm Straight connectors	No	45

Carried to Collection

Section No. 5
Bill No. 1
External works

R

30	160mm Inspection eye including covers	No	20
	<u>Pipework incased in concrete</u>		
31	160mm soil pipes encased in and including concrete in trenches not exceeding 1m deep	m	30
32	160mm soil pipes encased in and including concrete in trenches exceeding 1m not exceeding 2m deep	m	15
	<u>uPVC gulleys</u>		
33	160mm Gully with grease trap not exceeding 500mm deep	No	15
	<u>MANHOLES</u>		
	<u>Precast concrete inspection chambers including precast concrete cover slabs and channels in benching</u>		
34	1130mm Diameter x 2000mm deep overall pre cast concrete manhole rings to be constructed according to detail refer to the sewer manhole drawing number KZ/129/01	No	6
35	Circular light duty frame and Cover 1130mm in diameter x 100mm thick as per details to the sewer manhole drawing number KZ/129/01	No	6
	<u>ENGINEERING WORKING</u>		
	<u>Breaking up and removing</u>		
36	150mm thick mesh reinforced concrete surface beds including all the underground foundation		Item
	<u>EXCAVATION, FILLING, ETC</u>		
	<u>Excavation in earth not exceeding 2m deep</u>		
37	Reduced levels under floors	m3	1,077
	<u>WORKING SPACE EXCAVATIONS</u>		
	Carried to Collection		
	Section No. 5		
	Bill No. 1		
	External works		

R

<u>Back excavation of vertical sides of excavation in earth not exceeding 500mm deep for working space, including backfilling compacted to 93% Mod AASHTO density</u>		
38	For placing and removing formwork to walls etc, 300mm away from excavated face	m2 224
<u>EXCAVATIONS IN STRATA OF A MORE DIFFICULT CHARACTER</u>		
<u>Extra over trench and hole excavations in earth for excavations in</u>		
39	Soft rock	m3 431
40	Hard rock	m3 215
<u>Extra over all excavations for spreading and levelling</u>		
41	Surplus material from excavations and/or stock piles on site as directed	m3 1,170
<u>Risk of collapse of excavations</u>		
42	Sides of trench and hole excavations not exceeding 1,5m deep	m2 244
<u>Keeping excavations free of water</u>		
43	Keeping excavations free of all water	Item
<u>Earth filling of G7 material supplied by the contractor compacted to 98% Mod. AASHTO density</u>		
44	Under floors, etc	m3 846
<u>Earth filling of G5 material supplied by the contractor compacted to 98% Mod. AASHTO density</u>		
45	Under floors, etc	m3 231
<u>Gabions filled with broken stone</u>		
46	150mm 250mm Broken stone filled including preparing ground surface under surface bed	m3 135

Carried to Collection

R

Section No. 5
Bill No. 1
External works

<u>Coarse river sand filling supplied by the contractor</u>		
47	Under floors etc	m3 77
<u>Compaction of surfaces</u>		
48	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 AASTHO density	m2 769
<u>Soil poisoning</u>		
49	Soil insecticide under floors, paving, etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m2 769
50	Soil insecticide to bottoms of trenches, holes, etc	m2 144
<u>MASONRY</u>		
<u>FOUNDATIONS</u>		
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class 1 mortar</u>		
51	One brick walls	m2 168
<u>Bagging of 1:3 cement and sand mixture</u>		
52	On brick walls	m2 168
<u>Joint forming material in movement joints</u>		
53	12mm Fibre board built in vertically between brick skins	m2 180
<u>Brickwork reinforcement</u>		
54	150mm Wide reinforcement built in horizontally	m 3,400
55	75mm Wide reinforcement built in horizontally	m 920
<u>Galvanised hoop iron cramps, ties, etc</u>		
56	3 x 30mm Wall tie 375mm long with one end cast into concrete and other end built into brickwork	No 220

Carried to Collection

R

Section No. 5
Bill No. 1
External works

<u>Air bricks etc</u>				
57	229 x 76mm Clay vermin proof air brick	No	240	
<u>FACE BRICKWORK</u>				
<u>Face bricks pointed with recessed horizontal and vertical joints</u>				
58	Extra over brickwork in NFX bricks for face brickwork	m2	168	
59	Fair cutting and fitting around pipe not exceeding 100mm diameter	No	125	
<u>Builders Sundries</u>				
60	Provide the amount of Two Hundred Fifty Thousand For Builders Sundries		Item	250,000.00
Carried to Collection				
Section No. 5				
Bill No. 1				
External works				
				R

Section No. 5

Bill No. 1

External works

COLLECTION

Total Brought Forward from Page No.

**Page
No**

Amount

158

159

160

161

162

163

164

165

166

167

Carried to Final Summary

R

Section No. 5
Bill No. 1
External works

Section No	<u>FINAL SUMMARY</u>	Page No	Amount
1	Preliminaries	94	
2	Alteration	100	
3	Building Works	145	
4	Electrical Works	157	
5	External works	168	
	Sub-total		R
	Allow a contingency amount of R550,000.00 (Five Hundred and Fifty Thousand) to be used as directed by the project manager.		R 550,000.00
	Sub Total Excluding VAT		R
	ADD VAT @ 15%		R
	Carried to Tender		R
	Carried to Form of Tender		R