SOUTH WEST GAUTENG COLLEGE (SWGC) - LAND IS WEALTH CAMPUS

SECTION 1 - PRELIMINARIES AND GENERAL
SECTION 2 - STUDENT ACCOMODATION
SECTION 3 - CAFETERIA
SECTION 4 - SEPTIC TANK
SECTION 5 - SPECIALIST WORKS
SECTION 6 - PROVISIONAL SUMS
SECTION 7 - CONTINGENCIES

SECTION 1 - STUDENT ACCOMODATION

DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SECTION 1	**H1**			
BILL NO. 1	**H1**			
PRELIMINARIES	**H1**			
FIXED CHARGE ITEMS				
Contractual requirements.				
Insurances	SUM	1		
Programming	SUM	1		
Performance Security	SUM	1		
Retention Guarantee	SUM	1		
Establishment of Facilities on the Site				
Facilities for Engineer				
Equipment for the Engineer's Staff	SUM	1		
Facilities for Contractor	H4			
Offices and Storage Sheds	SUM	1		
Workshops	SUM	1		
Site Establishment	SUM	1		
Living Accomodation - The Contractor to supply a breakdown of the different categories namley: Supervision, Skilled Labor, Semi Skilled Labour and Unskilled Labour	SUM	1		
Laboratory Facilities	SUM	1		
Ablution and Latrine Facilities	SUM	1		
Tools and Equipment	SUM	1		
Water Supplies	SUM	1		
Electric Power	SUM	1		
Communication	SUM	1		
Air Supplies	SUM	1		
Dealing with Water	SUM	1		
Access	SUM	1		
Facilities Requiring Special Attention				
Security	SUM	1		

Safety	SUM	1		
Samples and certification of materials	SUM	1		
Testing Authority	SUM	1		
Other Contractors	SUM	1		
Quality Assurance	SUM	1		
Orders and Indents	SUM	1		
Site Meetings	SUM	1		
Plant for the Works	SUM	1		
Transport on the site	SUM	1		
Transport of the Workforce to and from the site	SUM	1		
Supervision for the duration of the construction	SUM	1		
Company and head office overheads costs for the duration of	SUM	1		
the contract works				
Other fixed charge obligation - Contractor to submit details	SUM	1		
Remove site establishment on completion	SUM	1		
VALUE RELATED ITEMS				
Contractual requirements.				
Insurances	SUM	1		
Programming	SUM	1		
Performance Security	SUM	1		
Retention Guarantee	SUM	1		
Establishment of Facilities on the Site				
Facilities for Engineer				
Equipment for the Engineer's Staff	SUM	1		
Facilities for Contractor				
Offices and Storage Sheds	SUM	1		
Workshops	SUM	1		
Site Establishment	SUM	1		
Living Accomodation - The Contractor to supply a breakdown of	SUM	1		
the different categories namley: Supervision, Skilled Labor,				
Semi Skilled Labour and Unskilled Labour				
Laboratory Facilities	SUM	1		
Ablution and Latrine Facilities	SUM	1		
Tools and Equipment	SUM	1		
Water Supplies	SUM	1		
Electric Power	SUM	1		
Communication	SUM	1		
Air Supplies	SUM	1		
Dealing with Water	SUM	1		

Access	SUM	1		
Facilities Requiring Special Attention				
Security	SUM	1		
Safety	SUM	1		
Samples and certification of materials	SUM	1		
Testing Authority	SUM	1		
Other Contractors	SUM	1		
Quality Assurance	SUM	1		
Orders and Indents	SUM	1		
Site Meetings	SUM	1		
Plant for the Works	SUM	1		
Transport on the site	SUM	1		
Transport of the Workforce to and from the site	SUM	1		
Supervision for the duration of the construction	SUM	1		
Company and head office overheads costs for the duration of	SUM	1		
the contract works				
Other value related obligations - Contractor to submit details	SUM	1		
Remove site establishment on completion	SUM	1		
TIME RELATED ITEMS				
Contractual requirements.				
Insurances	SUM	1		
Programming	SUM	1		
Performance Security	SUM	1		
Retention Guarantee	SUM	1		
Establishment of Facilities on the Site				
Facilities for Engineer				
Equipment for the Engineer's Staff	SUM	1		
Facilities for Contractor				
Offices and Storage Sheds	SUM	1		
Workshops	SUM	1		
Site Establishment	SUM	1		
Living Accomodation - The Contractor to supply a breakdown of	SUM	1		
the different categories namley: Supervision, Skilled Labor,				
Semi Skilled Labour and Unskilled Labour				
Laboratory Facilities	SUM	1		
Ablution and Latrine Facilities	SUM	1		
Tools and Equipment	SUM	1		
Water Supplies	SUM	1		

Electric Power	SUM	1		
Communication	SUM	1		
Air Supplies	SUM	1		
Dealing with Water	SUM	1		
Access	SUM	1		
Facilities Requiring Special Attention				
Security	SUM	1		
Safety	SUM	1		
Samples and certification of materials	SUM	1		
Testing Authority	SUM	1		
Other Contractors	SUM	1		
Quality Assurance	SUM	1		
Orders and Indents	SUM	1		
Site Meetings	SUM	1		
Plant for the Works	SUM	1		
Transport on the site	SUM	1		
Transport of the Workforce to and from the site	SUM	1		
Supervision for the duration of the construction	SUM	1		
Company and head office overheads costs for the duration of	SUM	1		
the contract works				
Other time related obligation - Contractor to submit details	SUM	1		
Remove site establishment on completion	SUM	1		
TOTAL- SECTION 1- BILL NO.1 - PRELIMINARIES AND GENERAL				
SECTION NO.2	H1			
BUILDING WORKS	H3			
BILL NO.1	H1			
EARTHWORKS	H2			
FOUNDATIONS	H1			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Nature of ground	H4			
The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"				
Excavation for working space in rock	H4			

Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be				
Carting away of excavated material	H4			
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
Filling	H4			
Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
Soil poisoning	H4			
Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said cerfificate to the Principal Agent				
SITE CLEARANCE, ETC.	H2			
Site clearance	H3			
Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	4355		
G5 Material				
G5 material compacted in 1000mm thick layers to 97% MOD AASHTO density	m3	2400		
G4 Material				
G4 material compacted in 1000mm thick layers to 95% MOD AASHTO density	m3	2400		
EXCAVATION, FILLING, ETC	H2			
Excavation in earth not exceeding 2m deep	H4			
Trenches	m3	1695		
Extra over trench and hole excavations in earth for excavation in	H4			
Soft rock	m3	170		
Hard rock	m3	85		
Extra over all excavations for carting away	H4			
Surplus material from excavations on site to a dumping site to be located by the contractor	m3	3200		
Risk of collapse of excavations	H4			
Sides of trench and hole excavations not exceeding 1,5m deep	m2	6585		
Keeping excavations free of water	H4			
Keeping excavations free of all water other than subterranean water	Item	1		
Backfilling to trenches	H3			
Backfilling to trenches, holes, etc	m3	935		
Compaction of surfaces	H4			
Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	565		

Prescribed density tests on filling	H4			
Modified AASHTO Density test	No	15		
SOIL POISONING	H2			
Soil insecticide	H4			
To bottoms and sides of trenches etc	m2	5570		
under surface beds	m2	2400		
CONCRETE, FORMWORK AND REINFORCEMENT	H2			
UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES	H2			
25MPa/19mm concrete	H4			
Concrete blinding	m3	30		
Strip footings	m3	650		
500mm mass concrete	m3	1000		
Column base	m3	85		
Reinforcement	H4			
8mm diameter bars	t	95		
Rebar				
Y16 Rebar	t	205		
Fabric reinforcement	**H4**			
Type 395 fabric reinforcement in concrete surface beds	m2	2400		
TEST CUBES	H2			
Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	15		
BRICKWORK	**H2**			
Brickwork of NFP bricks in class II mortar	**H4**			
220mm brick walls	m2	370		
110mm brick walls	m2	85		
300x300mm brick column	m2	60		
BRICKWORK SUNDRIES	H2			
Brickwork reinforcement	H4			
75mm Wide reinforcement built in horizontally	m	850		
150mm Wide reinforcement built in horizontally	m	5290		
TOTAL SECTION NO.2 - BILL NO.1 - EARTHWORKS				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO.2	**H1**			
CONCRETE, FORMWORK AND REINFORCEMENT	**H1**			

For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Cost of tests	H4			
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)				
Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated				
Formwork	H4			
Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use				
The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				
PRECAST CONCRETE	**H2**			
Concrete lintels	**H3**			
110 x 75mm precast concrete lintels as per the engineers spec.	m	625		
Turning pieces	H4			
230mm Wide turning piece to lintels etc	m	595		
REINFORCED CONCRETE	**H2**			
25MPa/19mm concrete	H4			
Slabs including beams and inverted beams	m3	595		
Surface beds	m3	720		
Stairs	m3	85		
CONCRETE SUNDRIES	**H2**			
Finishing top surfaces of concrete smooth with a wood float	H4			
Surface beds, slabs, etc	m2	4800		
FORMWORK	H2			

ROUGH FORMWORK (DEGREE OF ACCURACY II)	H2			
Rough formwork to sides	H3			
Edges, risers, ends and reveals not exceeding 300mm high or wide	m2	85		
SMOOTH FORMWORK (DEGREE OF ACCURACY II)	H2			
Smooth formwork to soffits	H4			
Slabs	m2	2400		
TEST CUBES	**H2**			
Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith. (Provisional)	Sets	15		
REINFORCEMENT	H2			
Mesh reinforcement	H4			
Type 395 fabric reinforcement in concrete surface beds, slabs,	m2	2400		
Mild steel reinforcement to structural concrete work	H4			
12mm Diameter bars	t	130		
TOTAL SECTION NO.2 - BILL NO.2 - CONCRETE,FORMWORK AND REINFORCEMENT				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 3	**H1**			
MASONRY	**H2**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
BRICKWORK	H2			
Sizes in descriptions	H4			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
Linings to concrete	H4			
Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties				
Hollow walls etc	H4			
Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole				
Reinforced brick lintels	H4			
Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous				
Face bricks	H4			
Bricks shall be ordered timeously to obtain uniformity in size and colour				

Pointing	H4			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
SUPERSTRUCTURE	H2			
Brickwork of NFP bricks in class II mortar	H4			
Half brick walls	m2	1356		
One brick walls	m2	8362		
One brick face brick walls	m2	1110		
Extra over for facebrick walls	m2	6780		
300x300mm brick columns	m2	285		
Brickwork reinforcement	H4			
75mm Wide reinforcement built in horizontally	m	5250		
150mm Wide reinforcement built in horizontally	m	21380		
NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS	H2			
Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.	H4			
15mm x 150mm Wide sills set flat and slightly projecting	m	625		
TOTAL SECTION NO.2 - BILL NO.3 - MASONRY				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO.4	**H1**			
WATERPROOFING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Waterproofing	H4			
DAMP-PROOFING OF WALLS AND FLOORS	H2			
One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course	H4			
In walls	m2	200		
One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"	H4			
Under surface beds	m2	2400		
DAMP-PROOFING ON CONCRETE	H2			
4mm Torched on Derbigum waterproofing on 40mm cement screed to fall on 150mm concrete slab to structural engineers detail	H4			

On concrete slab	m2	2400		
TOTAL SECTION NO.2 - BILL NO.4 - WATERPROOFING				
SECTION NO.2	H1			
BUILDING WORKS	H1			
BILL NO.5	H1			
ROOF COVERINGS ETC	H1			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
General	H4			
All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched				
Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use				
Sizes	H4			
All items are measured net unless otherwise described				
Flashings, trimming plates, etc.	H4			
Prices to include for all cutting and waste and relevant fixing material, unless otherwise described				
All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable				
All items are unless otherwise described measured net				
PROFILED METAL SHEETING AND ACCESSORIES	H2			
0,58mm chromodek finished galvanised metal corrugated 10.5 profilr roof sheeting @ 17.5° 76x50mm S.A. Pine purlins @ 1100mm C/Cs, 900mm end purlins on prefabricated trusses @ 900mm C/Cs, to eng's details and spec	H4			
Roof covering with pitch not exceeding 50 degrees	m2	3000		
Narrow flute closer	m	1500		
TOTAL SECTION NO.2 - BILL NO.5 - ROOF COVERINGS				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO.6	**H1**			
CARPENTRY AND JOINERY	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Particle board:	H3			

Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type				
Joinery:	H3			
Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
Fixing	H3			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
Decorative laminate finish:	H3			
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish				
PREFABRICATED ROOF TRUSSES	H2			
Pre-fabricated metal connected timber roof trusses	H3			
All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction				
Timber	H3			
Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460				
Bolts	H3			
Bolts shall be in accordance with BS 4190 or SABS 135				
Shear plates, tooth connectors and split rings	H3			
Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759				
Washers	H3			
Square or round washers of the following dimensions shall be used with all bolts:				
(1)Bolts up to 8mm diameter:				
Washers shall be minimum 25mm wide of minimum 2,50mm thickness				
(2)Bolts up to 12mm diameter:				
Washers shall be minimum 36mm wide of minimum 4,00mm thickness				
Bolts up to 20mm diameter:				
(3)Washers shall be minimum 60mm wide of minimum 5,00mm thickness				
Metal connector plates	H3			
Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel				
The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m2 commercial class hot dipped galvanising as per SABS 934 before stamping				
Truss construction	H3			
Trusses shall be constructed in jigs specially designed to unsure the correct profile, overhangs and cambers				

Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint				
Truss design	H3			
All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")				
Truss spacing	H3			
The truss centres shall be less than or equal to that as described in this bill for each respective truss				
Truss pitch	H3			
The truss pitch shall be as described in this bill for each respective truss type				
Truss loading	H3			
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"				
Shop drawings, design and erection guarantee certificates	H3			
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified				
Dimensions	H3			
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences				
Erection	H3			
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer				
Design system	H3			
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system				
However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent				
Specific specifications for roof trusses	H3			
Unless otherwise described, the following specifications will apply:				
(1)All trusses to be with a 10° pitch				
(2)The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres				
ROOFS	H2			
The following in plate nailed timber roof truss construction	H2			
The following is applicable in respect of roof trusses	H4			
The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes				
Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)				

Allow for the preparation and submission of the following documents in respect of all buildings	H4			
ROOF TRUSSES	H3			
Roof construction to double pitched roof supplied and erected complete in position with bracing, gangboarding, purlins, eaves, purlins, hipped end, rafters etc. for approximately 530m2 on plan (Refer to architect's drawings attached to these bills of quantities	No	5		
TIMBER RAFTERS	H2			
76x228mm deep grade 5 timber beam under roof installation to manufacturer's specification	H4			
76x228mm deep beam	m	649,75		
FASCIAS & BARGE BOARDS				
10 x 225mm white everite nutec fascia board	m	852,5		
DOORS, ETC	H2			
Solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame	H4			
40mm single door 813 x 2032mm high	No	250		
TOTAL SECTION NO.2 - BILL NO.6 - CAPENTRY AND JOINERY				
SECTION NO.2	H1			
BUILDING WORKS	H1			
BILL NO.7	H1			
CEILING , ETC.	H1			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Descriptions:	H4			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete				
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere				
CEILING CONSTRUCTION, CORNICES, ETC.	H2			
Cornice	H4			
75mm Coved cornices	m	1900		
SUSPENDED CEILINGS	H2			
1200 X 600MM Suspended Grid Ceiling with vinyl tiles to spec.	H4			
Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	2200		
Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	25		

TOTAL SECTION NO.2 - BILL NO.7 - CEILINGS, PARTIONS AND ACCESS FLOORING				
SECTION NO.2	**H1**			
BUILDING WORK	**H1**			
BILL NO.8	**H1**			
IRONMONGERY	**H1**			
For preambles see "Model Preambles for Trades (2008				
Edition)" and Supplementary preambles as specified in the				
Trades.				

SUPPLEMENTARY PREAMBLES	**H2**			
Descriptions	**H4**			
Items described as "plugged" shall be deemed to include				
screwing to fibre, plastic or metal plugs				
Finishes to ironmongery	**H4**			
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				
LETTERS, NAMEPLATES, ETC	H2			
"Union"	H3			
150 x 150mm Stainless steel plate engraved with "female" sign	No	30		
(St/Steel)				
150 x 150mm Stainless steel plate engraved with "male" sign	No	30		
(St/Steel)				
150 x 150mm Stainless steel plate engraved with "paraplegic"	No	15		
sign (St/Steel)				
150 x 150mm Stainless steel plate engraved with electrical	No	15		
symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with "no smoking"	No	30		
symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with "no open	No	30		

fires" symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with "no	No	15		
unauthorised person" symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with "no littering"	No	30		
symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with a "Fire Hose	No	30		
Reel" sign (St/Steel)				
150 x 150mm Stainless steel plate engraved with "Fire	No	30		
Extinguisher" sign (St/Steel)				
DOOR IRONMONGERY	H2			
Door stop	No	250		
TOILET ROLL HOLDER				
Chromium plated (stainless steel polished brass) lockable toilet roll holder, plugged	No	60		
HANDLES				
Franke Paraplegic Grab Rail 300x96x300mm	No	15		
TOTAL - SECTION 2 - BILL 8 - IRONMONGERY				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 9	**H1**			
METALWORK	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

Descriptions	H4			
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				
Drawings	H4			
Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc				
PRESSED STEEL DOOR FRAMES	H2			
1,2mm Double rebated frames suitable for one brick walls	H4			
Door frame for door of size 813 x 2032mm high	No	250		
ALUMINIUM WINDOWS, DOORS, ETC	**H2**			
Doors, windows, etc to be manufactured by an approved firm of specialists, to be of the best quality and design truly squared and unless otherwise described, prepared to receive galzing beads from the outside. All opening portions must fit perfectly on all faces and be so hung as to open and close freely without binding at any point. Wherever possible, all angles and intersections to be welded by electric welding, argon or arc welding. A sample window is to be submitted to the Architect for approval before the work is put in hand. The frames generally are to be suitable for brickwork, blockwork, or concrete reveals.				

They are to be fitted with fixing lugs of 2,8mm aluminium 13mm wide x 100mm long welded to framing, one near each corner and intermediately not more than 300mm apart to sides top and bottom. Where concrete reveals, etc the frames are to be countersunk holed for and fitted with the necessary screws at the centres as for the lugs above. Immediately after the windows, doors, etc, have been delivered on to site, they are to be thouroughly overhauled, and all necessary adjustment or repairs made before they are fixed in position. Where they come into contact with brickwork, blockwork, concrete, steel, etc, the framing is to be treated with bituminuos paint in an approved manner. The windows, doors, etc, are to be placed in their positions for building in and adjusted to open and close properly and are to be securely structured to prevent distortation whilst the brickwork and lintols, are being built. On completion of all other work the windows, doors, are to be adjusted as necessary and rendered in a complete and satisfactory state of repair and in working order. General. All rates for doors,windows, shopfronts etc , should include for all galzing as specified. Glazing beads: All door, etc to be fitted with galzing beads, unless otherwise described, mitred at angles and screwed on. Glass and Glazing: All functional glass must be delivered to site cut to size and ready for installation and must be classified to indicate grade and thickness. Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter an insurance letter will follow absolving the contractor of responsibilty.				
AAAMSA guide	H4			
All windows, doors, etc shall comply with and meet the minimum recommended performance requirements as set out in the General Specification for Architectural Aluminium and Glass Products (Third Edition) as published by the Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA) The following specifications are to be complied with: Aluminium alloy extrusion: BS 1474 Aluminium alloy sheets: SANS 903 Anodising: SANS 999 Neoprene performed seals and gaskets: SATM C542 Powder coat finishing: SANS 1274				
Finish	H4			
The windows, doors, etc shall be natural anodised to a thickness of 25 micron and shall comply with SABS 999 and 1407				
Glass	H4			
Glazing to be with patent rubber gaskets with glazing beads and comply with BS 952. Thickness of glass shall be in accordance with table 1 (Part N : Glazing). Safety glass shall comply with SABS 1263. The National Building Regulations shall be observed with regard to the specification of safety glass				
Design indemnity	H4			
The contractor is to submit with his tender the "Form of Indemnity", annexed to this document, fully completed and signed				
Drawings	H4			
Tenderers are referred to architect's drawings annexed to these bills of quantities for full details of windows, doors, etc				
Pricing.	H4			
All window prices should include alluminium louvres as shown				
General	H4			
Workshop drawings to be approved by the architect before manufacture				
Ironmongery	H4			
Prices for windows shall allow for two standard stainless steel side/top hung friction hinges and one bronze anodised aluminium handle per opening sash. Prices for doors shall allow for two pairs of standard flush bolts to double doors and one-and-a-half pairs of standard hinges per door leaf.				
Natural annodised series 340 aluminium windows, doors, etc including sub-frames, fixing, silicone sealant all round, ironmongery and glazed with 6,38mm clear laminated safetyglass unless otherwise stated	H3			

ALUMINUM WINDOWS	H2			
Allow a provisional sum amount of R650 000,00 (Six Hundred and Fifty Thousand Rands) for supply and installation of aluminium windows	SUM	1		
ALUMINUM DOORS	H2			
Allow a provisional sum of R350 000,00 (Three Hundred and Fifty Thousand Rands) amount for supply and installation of aluminium doors	SUM	1		
STEELWORK	H2			
50mm Thick stainless steel balustrade sections	H4			
50mm thick steel sections	m	170		
10mm flat section bolted to brickwork	No	80		
Extra over 10mm flat section for bolts	No	255		
WALL MOUNTED FOLDING WASHING LINE				
Supply and installation of the wall mounted folding washing line complete with the powder coated aluminum frame, folding brackets, wires and screws. Wall mounted folding washing line size 26,4m2.	No	15		
TOTAL SECTION NO.2 - BILL NO.9 - METALWORKS				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 10	**H1**			
PLASTERING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

INTERNAL PLASTER	H2			
Cement plaster on brickwork	H4			
On walls	m2	8475		
EXTERNAL PLASTER	H2			
On walls	m2	2660		
CLADDING				
Cladding to the external walls	m2	290		
TOTAL SECTION NO.2 - BILL NO.10 - PLASTERING				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO.11	**H1**			
TILING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Descriptions	H4			
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				
WALL TILING	H2			
On walls	m2	2715		
FLOOR TILING	H2			
On floors and landings	m2	4700		
Skirting formed of ceramic tile cut to 300 x 75mm high	m	1900		
TOTAL SECTION NO.2 - BILL NO.11 - TILING				
SECTION NO.2	**H1**			
BUILDING WORK	**H1**			
BILL NO.12	**H1**			
PLUMBING AND DRAINAGE	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Polycop polypropylene pipes:	H3			
Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated				
Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions				
All pipe diameters are nominal external				
Polylink polypropylene pipes:	H3			
Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints				
Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured				
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers				
Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers				
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same				
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions				
All pipe diameters are nominal external				
Concrete pipes:	H3			

Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings				
Vitrified clay pipes:	H3			
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid				
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings				
uPVC pipes and fittings:	H3			
Soil, waste and vent pipes and fittings shall be solvent weld jointed				
uPVC pressure pipes and fittings:	H3			
Pipes for water supply shall be of the class stated				
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings				
Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints				
Copper pipes:	H3			
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground				
Fixing of pipes	H3			
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level				
Lead pipes and fittings	H3			
All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel				
Reducing fittings	H3			
Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained				
Wire gratings	H3			
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings				
Septic tanks	H3			
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions				
Exposed concrete surfaces	H3			
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster				

Excavations	H3			
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	H3			
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding				
Flush pans	H3			
Flush pans shall have straight or side outlets and "P" or "S" traps as necessary				
Stainless steelbasins, sinks, wash troughs, urinals, etc.	H3			
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable				
Waste unions	H3			
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings				
Steel sectional water tanks	H3			
Tanks shall comply with SABS CKS 114				
Densyl petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.	H3			
Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described				
Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
EQUIPMENT	**H2**			
SEWER SYSTEM	**H2**			
Main Sewer Line - underground	**H3**			
Pipe to be UPVC Class 34 (Marley or equal)	H4			
Pipe to be bedded in accordance with SANS 1200LB and SANS 1200 LD	H4			
110 mm Ø piping	m	452		
50 mm Ø piping	m	170		
Extra Over for Fittings	H4			
110 mm Ø 45° bends	No	30		
110 mm Ø Y-Junction UYAR42 Ribbed L/S Junction	No	115		
110 mm Ø 22,5° bends	No	30		
110 mm Ø UAP43 Rodding Eye c/w thrust block	No	30		
Thrust Blocks 0,3 X 0,3 X 0,3 m in concrete for pipe direction changes and rodding	No	60		

Excavation trenches 1m wide X 2,2m deep average (Rate to include for fill and compact in line with SABS 1200 LB	No	370		
Brick Manholes constructed in line with SABS 1200LB and SABS 1200 LD c/w step irons, benched to detail, manhole covers and concrete covers	No	30		
Main Sewer Line - above ground	H4			
Pipe to be UPVC Class 9 in accordance with SANS 10252 Part 2	H4			
110 mm Ø piping	m	145		
50 mm Ø piping	m	145		
Extra Over for Fittings	H4			
110 mm Ø 45° bends	No	30		
110 mm Ø Y-Junction R/S with I.E	No	60		
110 mm Ø 22,5° bends	No	30		
110 mm Ø I.E on Line	No	60		
110 mm ØPipe Hangars c/w threaded bar and double lock-nut	No	145		
50 mm ØPipe Hangars c/w threaded bar and double lock-nut	No	115		
Extra Over for Fittings	H4			
50 mm Ø 45° bends	No	30		
50 mm Ø Y-Junction	No	60		
50 mm Ø glued joint socket	No	145		
50 mm Ø 90° bends Incl. I.E	No	115		
110 mm Ø one-way vent valve	No	30		
50 mm Ø - 110 mm Ø transformer	No	60		
110 mm Ø Kimberley Socket tranformation from internal to external piping	No	60		
50 mm Ø Back vent to main stack	No	285		
110 mm Ø I.E on Line	No	30		
PVC Weld for underground Pipes	No	60		
Two Way Vent Valve	No	60		
STORAGE TANK	H2			
27000 litre 2750 dia. X 4800mm High complete on 10m high frame built by structural engineers	No	10		
GEYSER	H2			
200 litre geyser complete with 2kW heat pump located in refuse yard Hot Water system is for the supply of the kitchen area only	No	10		
RAINWATER DISPOSAL	H2			
0,6mm Galvanised sheet iron with "Chromadek" finish on one side	H4			
100 x 125mm Eaves gutters with beaded front edge	m	565		
Extra over eaves gutter for angle	No	115		
Extra over eaves gutter for stopped end	No	115		
Extra over eaves gutter for outlet for 100mm diameter pipe	No	115		

100mm Diameter rainwater pipes	m	315		
Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	115		
Extra over rainwater pipe for shoe	No	115		
SANITARY PLUMBING	H2			
Extra heavy duty structured wall uPVC sewer pipes to SANS 1601	H4			
50MM Pipes	m	115		
110mm Pipes	m	370		
Extra over extra heavy duty structured wall uPVC sewer pipes to SANS 1601 for fittings	H3			
50mm Access bend	No	115		
110mm Access bend	No	115		
50mm Junction	m	115		
SANITARY FITTINGS	H2			
Basins	H4			
Manufactured of acrylic material (white colour) as per developers prefered choice and range	No	80		
Toilets	H4			
Wall-hung (white color) with Gerberit or similar system as per developers prefered choice	No	60		
White vitreous china paraplegic semi close couple boxed suite with purpose made chromium plated side flush lever and purpose made uraa seat	No	15		
Showers				
RS PRO crome shower heads	No	15		
Acrylic Bath				
1700 x 700mm Acrylic type bath with waste outlet, overflow grating with coupling and pair of handles, bedded in position.	No	15		
Kitchen sink	H4			
Stainless steel double bowl sink as per developers prefered choice and range	No	15		
TRAPS ETC	**H3**			
uPVC	**H4**			
32 x 40mm Reseal "P" or "S" trap	No	1575		
40mm Reseal "P" or "S" trap	No	850		
Floor drain to Architect's spec	No	15		
TAPS, VALVES, ETC	**H3**			
15mm Brass bib-tap	No	15		
Chrome plated elbow action basin mixer	No	70		
Chrome plated single lever sink mixer including aerated swivel outlet and mounting kit complete	No	15		
15mm Chromium plated pillar tap	No	85		
Wall type bath mixer with diverter and wall mounted hand shower holder including hand shower and hand shower hose	No	115		

Chrome plated wall type sink mixer including aerated swivel outlet	No	115		
550mm Chrome plated shower rail set including sliding shower	No	30		
holder				
Chrome plated single lever underwall bath mixer complete	No	30		
Hand shower complete with hand shower rose and shower arm	No	30		
with wall flange				
15mm chromium plated angle regulating valve and flexible	No	565		
connection pipe				
PA3:522 "Masterflo 1" pressure control valve with vacuum	No	170		
breaker				
TOTAL SECTION NO.2 - BILL NO.12 - PLUMBING AND DRAINAGE				
SECTION NO.2	**H1**			
BUILDING WORK	**H1**			
BILL NO.13	**H1**			
ELECTRICAL WORKS	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
Note: Contractor to provide temporary generator power on site during installation for testing and temporary power supply for the duration of the construction period	**H1**			
Complete installation: Reticulation; electrical, telephone and data)	H4			
NOTE: Tenderers are advised to study the specifications before pricing the bill.	H4			
DISTRIBUTION BOARDS	H2			
Supply, Install, test and commision distribution board in the bulding - Flush mounted distribution board cupboards, c/w all switchgear and breakers	H4			
DB-A	No	10		
Label all circuits and install signage to the panels and COC	SUM	1		
Supply cable	SUM	1		
EXTERNAL LIGHTING	H2			
Supply, deliver, install, connect, test and commissioning the following external light fittings	H4			
TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 15W LED lamp	No	145		
TYPE F03 - Vapour proof flourescent light fitting, fitted with 2x36W T5 lamps	No	145		
WIRING & TERMINALS	H3			
Supply, delivery and installation of Cu Conductors:	H4			
2,5mm² PVC insulated conductor	H4			
Supply and delivery	m	1921		
Installation	m	1921		
2,5mm² bare copper earth wire	H4			
Supply and delivery	m	2090,5		

Installation	m	2090,5		
Day Light switch	H4			
Supply and installation	No	10		
LIGHTING INSTALLATIONS	H2			
WIREWAYS	H3			
Supply and Install Trunking	H4			
Supply and install P8000 trunking suspended from slab and trusses in ceiling void.	H4			
Supply and delivery	m	310,75		
Installation	m	310,75		
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.	H4			
20mm diameter	H4			
Supply and delivery	m	1130		
Installation	m	1130		
Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted	H4			
100 x 50 x 50 mm, c/w applicable cover	H4			
Supply and delivery	No	400		
Installation	No	400		
65mm round box, c/w cover				
Supply and delivery	No	115		
Installation	No	115		
ACCESSORIES	H3			
Supply, deliver and install accessories to boxes	H4			
5A, 3-pin socket outlets to trunking	No	85		
WIRING & TERMINALS	H3			
Supply, delivery and installation of Cu Conductors:	H4			
1,5mm² PVC insulated conductor	H4			
Supply and delivery	m	2203,5		
Installation	m	2203,5		
2,5mm² bare copper earth wire	H4			
Supply and delivery	m	1921		
Installation	m	1921		
LIGHT FITTINGS	H3			
Supply, deliver, install, connect, test and commissioning the following light fittings	H4			
TYPE F01 - 1200x300mm surface mounted flourescent light fitting	No	170		
TYPE C1 - 230V 103mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	170		

TYPE F02 - Open channel flourecscent light fitting	No	115		
Supply, deliver, install, connect, test and commissioning of Sensors	H4			
Supply, deliver, install, connect, test and commissioning occupancy sensors	H4			
WSD PDT	No	113		
Adaptors 5 Amp 2 Way	No	60		
Adaptors 5 Amp 4 Way	No	60		
SMALL POWER INSTALLATION	H2			
WIREWAYS	H3			
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.	H4			
20mm diameter	H4			
Supply and delivery	m	1130		
Installation	m	1130		
Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w 1.6mm draw wires	No	60		
Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover	H4			
100 x 100 x 50 mm	H4			
Supply and delivery	No	170		
Installation	No	170		
Supply, deliver and installation of the 1 compartment, 1 cover Midland power skirting complete with all accessories including internal/external bends, end caps etc.	H4			
as per ground floor drawing	m	1430		
Supply and Install Trunking	H4			
Supply and install 5A 3 pin power trunking suspended from slab and trusses in ceiling void.	H4			
Supply and delivery	No	170		
Installation	No	170		
Supply, delivery and installation of socket outlets	H4			
16 A, 3-pin standard white SSO	H4			
Flush Mounted	No	85		
Power skirting mounted	No	85		
16 A, 3-pin double white SSO	H4			
Flush Mounted	No	85		
16 A, 3-pin dedicated red SSO	H4			
Power skirting mounted, 45 degree (including plug top)	No	85		
Supply and installation of power skirting accessories	H4			
Blank cover plate suitable for RJ 11 telephone outlet	No	115		

WIRING & TERMINALS	H3			
Supply, Deliver and installation of Cu Conductors:	H4			
2.5mm² PVC insulated conductor	H4			
Supply and delivery	m	1925		
Installation	m	1925		
2.5mm² bare copper earth wire	H4			
Supply and delivery	m	680		
Installation	m	680		
PROVISIONAL SUMS	H2			
Provisional Sums exclude the cost of Overheads, Preliminaries and Profit				
Provisional Sums:	H4			
Allow a provisional sum amount of R65 000,00 (Sixty Five Thousand Rands) for the Eskom connection	SUM	1		
TOTAL SECTION NO.2 - BILL NO.13 - ELECTRICAL WORKS				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 14	**H1**			
GLAZING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

TOPS, SHELVES, DOORS, MIRRORS, ETC	H2			
4mm Silvered float glass copper backed mirrors with 10 mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete	H3			
Mirror 400 x 600mm high with four (4) screws	No	95		
TOTAL SECTION NO.2 - BILL NO.14 - GLAZING				
SECTION NO.2	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 15	**H1**			
PAINTWORK	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

PAINTWORK ETC TO NEW WORK	H2			
ON FLOATED PLASTER	H2			

Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.	H4			
On external plastered walls	m2	2660		
On internal plastered walls	m2	8475		
ON CEILING BOARDS				
On ceiling	m2	2230		
On cornice	m2	1840		
ON SMOOTH CONCRETE	H2			
Prepare surfaces and remove all loose material, and rinse. Apply flexible crackfiller to holes and cracks, one coat plaster primer and two coats Plascon Professional Copolymer Acrylic paint	**H3**			
On soffits of concrete slabs	m2	2344,75		
Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.	H4			
On fascias and barge boards	m2	852,5		
Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.	H4			
On window sills not exceeding 300 mm girth	m	621,5		
ON METAL	H2			
Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.	H4			
On door frames	m2	1182,5		
On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area)	m2	550		
On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	254,25		
On roof sheeting	m	3503		
ON WOOD	H2			

Plascon Velvaglo Satin to interior new wood (NW 571).Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.	H4			
Three coats matt varnish	H4			
On doors	m2	412,5		
TOTAL SECTION NO.2 - BILL NO.15 - PAINTWORK				
SECTION 2 - STUDENT ACCOMODATION - TOTAL EXCLUDING VAT				

SECTION 3 - CAFETERIA

DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SECTION NO.3	H1			
BUILDING WORKS	H3			
BILL NO.1	H1			
EARTHWORKS	H2			
FOUNDATIONS	H1			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Nature of ground	H4			
The nature of the ground is assumed to be sandy weathered granite, therefore "earth", but possibly interspersed with "hard rock"				
Excavation for working space in rock	H4			
Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be				
Carting away of excavated material	H4			
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site				
Filling	H4			
Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material				
Soil poisoning	H4			
Ant and weed poisoning will be applied in accordance to SABS specifications by Registered and Approved Specialists who will issue a five (5) year guarantee. The contractor will only be paid for this items once they have produced the said cerfificate to the Principal Agent				
SITE CLEARANCE, ETC.	H2			
Site clearance	H3			

Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m2	841		
EXCAVATION, FILLING, ETC	H2			
Excavation in earth not exceeding 2m deep	H4			
Trenches	m3	319		
Extra over trench and hole excavations in earth for excavation in	H4			
Soft rock	m3	43,5		
Hard rock	m3	29		
Extra over all excavations for carting away	H4			
Surplus material from excavations on site to a dumping site to be located by the contractor	m3	159,5		
Risk of collapse of excavations	H4			
Sides of trench and hole excavations not exceeding 1,5m deep	m2	797,5		
Keeping excavations free of water	H4			
Keeping excavations free of all water other than subterranean water	Item	1		
Backfilling to trenches	H3			
Backfilling to trenches, holes, etc	m3	188,5		
Compaction of surfaces	H4			
Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m2	116		
Prescribed density tests on filling	H4			
Modified AASHTO Density test	No	3		
SOIL POISONING	H2			
Soil insecticide	H4			
To bottoms and sides of trenches etc	m2	2856,5		
under surface beds	m2	449,5		
CONCRETE, FORMWORK AND REINFORCEMENT	H2			
UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES	H2			
25MPa/19mm concrete	H4			
Concrete blinding	m3	14,5		
Strip footings	m3	130,5		
Column base	m3	29		
Reinforcement	H4			
8mm diameter bars	t	29		
TEST CUBES	H2			
Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith.	Sets	1,5		
BRICKWORK	**H2**			

Brickwork of NFP bricks in class II mortar	**H4**			
220mm brick walls	m2	145		
110mm brick walls	m2	72,5		
650x715mm brick column	m2			
BRICKWORK SUNDRIES	H2			
Brickwork reinforcement	H4			
75mm Wide reinforcement built in horizontally	m	362,5		
150mm Wide reinforcement built in horizontally	m	1000,5		
TOTAL SECTION NO.3 - BILL NO.1 - EARTHWORKS				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO.2	**H1**			
CONCRETE, FORMWORK AND REINFORCEMENT	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Cost of tests	H4			
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)				
Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated				
Formwork	H4			
Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use				
The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself				
Formworks to soffits of solid slabs etc shall be deemed to be slabs not exceeding 250mm thick unless otherwise described				
Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described				
Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"				

PRECAST CONCRETE	**H2**			
Concrete lintels	**H3**			
110 x 75mm precast concrete lintels as per the engineers spec.	m	130,5		
Turning pieces	H4			
230mm Wide turning piece to lintels etc	m	116		
REINFORCED CONCRETE	**H2**			
25MPa/19mm concrete	H4			
Surface beds	m3	72,5		
CONCRETE SUNDRIES	**H2**			
Finishing top surfaces of concrete smooth with a wood float	H4			
Surface beds, slabs, etc	m2	870		
TEST CUBES	**H2**			
Allow for preparing a set of three concrete strength test cubes, each size 150 x 150 x 150mm, sending them to an approved Testing Laboratory for testing and paying all charges in connection therewith. (Provisional)	Sets	5		
REINFORCEMENT	H2			
Mesh reinforcement	H4			
Type 395 fabric reinforcement in concrete surface beds, slabs,	m2	449,5		
TOTAL SECTION NO.3 - BILL NO.2 - CONCRETE,FORMWORK AND REINFORCEMENT				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 3	**H1**			
MASONRY	**H2**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
BRICKWORK	H2			
Sizes in descriptions	H4			
Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
Linings to concrete	H4			
Descriptions of linings to concrete, unless otherwise described, shall be deemed to include wire ties				
Hollow walls etc	H4			
Descriptions of hollow walls shall be deemed to include wire ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole				
Reinforced brick lintels	H4			

Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous				
Face bricks	H4			
Bricks shall be ordered timeously to obtain uniformity in size and colour				
Pointing	H4			
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
SUPERSTRUCTURE	H2			
Brickwork of NFP bricks in class II mortar	H4			
Half brick walls	m2	261		
One brick walls	m2	1580,5		
One brick face brick walls	m2	217,5		
Extra over for facebrick walls	m2	1276		
300x300mm brick columns	m2	58		
Brickwork reinforcement	H4			
75mm Wide reinforcement built in horizontally	m	986		
150mm Wide reinforcement built in horizontally	m	4016,5		
NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS	H2			
Nutec window internal sill, size 150mm x 15mm thick, manufactured in accordance with SANS 803:2005 and installed below window with window sill lug screwed to underside of sill at 400mm centres, minimum of 75mm from end of window sill and bedded in Class II mortar with plastic slip joints at end of sills at plaster reveals and projecting from the finished face of wall, all in accordance with the manufacturer's recommendations.	H4			
15mm x 150mm Wide sills set flat and slightly projecting	m	130,5		
TOTAL SECTION NO.3 - BILL NO.3 - MASONRY				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO.4	**H1**			
WATERPROOFING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Waterproofing	H4			
DAMP-PROOFING OF WALLS AND FLOORS	H2			
One layer of 375 micron Consol Plastic Brikgrip DPC" embossed damp proof course	H4			
In walls	m2	565,5		
One layer of 250 micron "Consol Plastic USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape"	H4			

Under surface beds	m2	870		
TOTAL SECTION NO.3 - BILL NO.4 - WATERPROOFING				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO.5	**H1**			
ROOF COVERINGS ETC	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
General	H4			
All roof coverings, etc., to be with a covering of Z275 galvanising. All holes to be drilled and not punched				
Where described as with "Chromadek" finish, all sheets, flashings, etc., shall be with "Chromadek" silicone polyester paint for exterior use				
Sizes	H4			
All items are measured net unless otherwise described				
Flashings, trimming plates, etc.	H4			
Prices to include for all cutting and waste and relevant fixing material, unless otherwise described				
All rates for flashings, trimmings, etc., to include for forming drips and closed ends to troughs of sheet steel roof covering where applicable				
All items are unless otherwise described measured net				
PROFILED METAL SHEETING AND ACCESSORIES	H2			
0,58mm chromodek finished galvanised metal corrugated 10.5 profilr roof sheeting @ 17.5° 76x50mm S.A. Pine purlins @ 1100mm C/Cs, 900mm end purlins on prefabricated trusses @ 900mm C/Cs, to eng's details and spec	H4			
Roof covering with pitch not exceeding 50 degrees	m2	1160		
Narrow flute closer	m	348		
TOTAL SECTION NO.3 - BILL NO.5 - ROOF COVERINGS				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO.6	**H1**			
CARPENTRY AND JOINERY	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Particle board:	H3			

Particle board shall comply with the following specifications: a) SABS 1300 Particle board: exterior and flooring type b) SABS 1301 Particle board: interior type				
Joinery:	H3			
Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc				
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
Fixing	H3			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
Decorative laminate finish:	H3			
Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish				
PREFABRICATED ROOF TRUSSES	H2			
Pre-fabricated metal connected timber roof trusses	H3			
All trusses shall be fabricated by an approved truss manufacturer who holds a current Certificate of Competence awarded by the Institute for Timber Construction				
Timber	H3			
Timber for trusses to be South African softwood and shall be in accordance with the grades as defined in SABS Specification No 563 or as defined in SABS Specification No 1460				
Bolts	H3			
Bolts shall be in accordance with BS 4190 or SABS 135				
Shear plates, tooth connectors and split rings	H3			
Shear plates, tooth connectors and split rings shall be in accordance with BSS 1759				
Washers	H3			
Square or round washers of the following dimensions shall be used with all bolts:				
(1)Bolts up to 8mm diameter:				
Washers shall be minimum 25mm wide of minimum 2,50mm thickness				
(2)Bolts up to 12mm diameter:				
Washers shall be minimum 36mm wide of minimum 4,00mm thickness				
Bolts up to 20mm diameter:				
(3)Washers shall be minimum 60mm wide of minimum 5,00mm thickness				
Metal connector plates	H3			
Metal connector plates shall be fabricated out of not less than 1mm thick drawn quality galvanised steel				
The steel shall have a minimum yield strength of 228MPa and a minimum ultimate tensile strength of 330MPa. The corrosion resisting coating shall be not less than 275g/m2 commercial class hot dipped galvanising as per SABS 934 before stamping				
Truss construction	H3			
Trusses shall be constructed in jigs specially designed to unsure the correct profile, overhangs and cambers				
Where metal connector plates are used all joints are to be close fitted butt joints made by precision pressing of the metal connector plates into each side of the joint				

Truss design	H3			
All trusses shall be designed by a registered Professional Engineer in accordance with SABS 0163 ("Design of Timber Structures") and Code 0160 ("Loadings")				
Truss spacing	H3			
The truss centres shall be less than or equal to that as described in this bill for each respective truss				
Truss pitch	H3			
The truss pitch shall be as described in this bill for each respective truss type				
Truss loading	H3			
Trusses shall be designed for a live load of 0,50kN/m2 and dead load as specified under the sub-heading "Specific load specifications for roof trusses"				
Shop drawings, design and erection guarantee certificates	H3			
It will be expected from the Contractor to timeously prepare, submit and obtain the necessary approvals from the Representative/Agent in respect of the required shop drawings, design and erection guarantee certificates as specified				
Dimensions	H3			
All dimensions given in the descriptions of the trusses are nominal and actual measurements are to be obtained by actual measurements taken on the site before design or fabrication commences				
Erection	H3			
All trusses are to be hoisted and erected strictly in accordance with the procedures and recommendations of the manual "The Erection and Bracing of Timber roof Trusses" as published by the Institute for Timber Construction "The Design, Manufacture and Erection of Timber Roof Trusses", or as designed and detailed by the designer				
Design system	H3			
The design system as documented in this bill is based on the "MiTek" system and all references given in the descriptions are related to specific type of trusses based on this design system				
However, Contractors are to note that any design system of similar quality may be used subject to the prior written approval of the Representative/Agent				
Specific specifications for roof trusses	H3			
Unless otherwise described, the following specifications will apply:				
(1)All trusses to be with a 10° pitch				
(2)The dead load consists of corrugated roof sheeting and purlins at approximately 1200mm centres				
ROOFS	H2			
The following in plate nailed timber roof truss construction	H2			
The following is applicable in respect of roof trusses	H4			
The references given in the descriptions are to the respective types of trusses detailed on the architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes				
Prices for rafters and trusses to include all "Hurricane" clips, steel M-runners and "Permfix" plates, screws, nails, wires, sundry material, etc (bracing, wallplates, purlins and gangboarding are measured seperately)				
Allow for the preparation and submission of the following documents in respect of all buildings	H4			

ROOF TRUSSES	H3			
Sawn softwood				
Battening at centres for tile roof covering	m2	406		
75 x 100mm Wall plates	m	174		
25 x 100mm Longitudinal bracing	m	116		
38 x 38mm Cross bracing	m	87		
60 x 60 x 6 x 5,42kg/m L section Purlins	m	43,5		
TIMBER RAFTERS	H2			
76x228mm deep grade 5 timber beam under roof installation to manufacturer's specification	H4			
76x228mm deep beam	m	130,5		
FASCIAS & BARGE BOARDS				
10 x 225mm white everite nutec fascia board	m	1766,1		
DOORS, ETC	H2			
Solid core flush doors with concealed hardwood edges and 4mm thick masonite covering on both sides hung to steel frame	H4			
40mm single door 813 x 2032mm high	No	3		
TOTAL SECTION NO.3 - BILL NO.6 - CAPENTRY AND JOINERY				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO.7	**H1**			
CEILING , ETC.	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Descriptions:	H4			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete				
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere				
CEILING CONSTRUCTION, CORNICES, ETC.	H2			
Cornice	H4			
75mm Coved cornices	m	377		
SUSPENDED CEILINGS	H2			
1200 X 600MM Suspended Grid Ceiling with vinyl tiles to spec.	H4			
Ceilings including 38 x 38mm brandering at 90deg to trusses at maximum centres of 400mm by 32mm long galvanised nails.	m2	870		

Extra over ceiling for opening for 610 x 610mm trap door of 50 x 76mm wrought softwood rebated framing with one 38 x 38mm sawn softwood cross brander covered with ceiling board and fitted flush in opening	No	2		
TOTAL SECTION NO.3 - BILL NO.7 - CEILINGS, PARTIONS AND ACCESS FLOORING				
SECTION NO.3	**H1**			
BUILDING WORK	**H1**			
BILL NO.8	**H1**			
IRONMONGERY	**H1**			
For preambles see "Model Preambles for Trades (2008				
Edition)" and Supplementary preambles as specified in the				
Trades.				

SUPPLEMENTARY PREAMBLES	**H2**			
Descriptions	**H4**			
Items described as "plugged" shall be deemed to include				
screwing to fibre, plastic or metal plugs				
Finishes to ironmongery	**H4**			
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				
LETTERS, NAMEPLATES, ETC	H2			
"Union"	H3			
150 x 150mm Stainless steel plate engraved with "female" sign	No	5		
(St/Steel)				
150 x 150mm Stainless steel plate engraved with "male" sign	No	5		
(St/Steel)				
150 x 150mm Stainless steel plate engraved with "paraplegic"	No	4		
sign (St/Steel)				
150 x 150mm Stainless steel plate engraved with electrical	No	5		
symbol (St/Steel)				

150 x 150mm Stainless steel plate engraved with "no smoking"	No	10		
symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with "no open	No	10		
fires" symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with "no	No	10		
unauthorised person" symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with "no littering"	No	10		
symbol (St/Steel)				
150 x 150mm Stainless steel plate engraved with a "Fire Hose	No	10		
Reel" sign (St/Steel)				
150 x 150mm Stainless steel plate engraved with "Fire	No	10		
Extinguisher" sign (St/Steel)				
DOOR IRONMONGERY	H2			
Door stop	No	16,06		
TOILET ROLL HOLDER				
Chromium plated (stainless steel polished brass) lockable toilet roll holder, plugged	No	5		
HANDLES				
Franke Paraplegic Grab Rail 300x96x300mm	No	5		
TOTAL - SECTION 3 - BILL 8 - IRONMONGERY				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 9	**H1**			
METALWORK	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

Descriptions	H4			
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				
Drawings	H4			
Tenderers are referred to architect's drawings annexed to this document for full details of the windows, doors, etc				
PRESSED STEEL DOOR FRAMES	H2			
1,2mm Double rebated frames suitable for one brick walls	H4			
Door frame for door of size 813 x 2032mm high	No	3		
ALUMINIUM WINDOWS, DOORS, ETC	**H2**			

Doors, windows, etc to be manufactured by an approved firm of specialists, to be of the best quality and design truly squared and unless otherwise described, prepared to receive galzing beads from the outside. All opening portions must fit perfectly on all faces and be so hung as to open and close freely without binding at any point. Wherever possible, all angles and intersections to be welded by electric welding, argon or arc welding. A sample window is to be submitted to the Architect for approval before the work is put in hand. The frames generally are to be suitable for brickwork, blockwork, or concrete reveals.				
They are to be fitted with fixing lugs of 2,8mm aluminium 13mm wide x 100mm long welded to framing, one near each corner and intermediately not more than 300mm apart to sides top and bottom. Where concrete reveals, etc the frames are to be countersunk holed for and fitted with the necessary screws at the centres as for the lugs above. Immediately after the windows, doors, etc, have been delivered on to site, they are to be thouroughly overhauled, and all necessary adjustment or repairs made before they are fixed in position. Where they come into contact with brickwork, blockwork, concrete, steel, etc, the framing is to be treated with bituminuos paint in an approved manner. The windows, doors, etc, are to be placed in their positions for building in and adjusted to open and close properly and are to be securely structured to prevent distortation whilst the brickwork and lintols, are being built. On completion of all other work the windows, doors, are to be adjusted as necessary and rendered in a complete and satisfactory state of repair and in working order. General. All rates for doors,windows, shopfronts etc , should include for all galzing as specified. Glazing beads: All door, etc to be fitted with galzing beads, unless otherwise described, mitred at angles and screwed on. Glass and Glazing: All functional glass must be delivered to site cut to size and ready for installation and must be classified to indicate grade and thickness. Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter an insurance letter will follow absolving the contractor of responsibilty.				
AAAMSA guide	H4			
All windows, doors, etc shall comply with and meet the minimum recommended performance requirements as set out in the General Specification for Architectural Aluminium and Glass Products (Third Edition) as published by the Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA) The following specifications are to be complied with: Aluminium alloy extrusion: BS 1474 Aluminium alloy sheets: SANS 903 Anodising: SANS 999 Neoprene performed seals and gaskets: SATM C542 Powder coat finishing: SANS 1274				
Finish	H4			
The windows, doors, etc shall be natural anodised to a thickness of 25 micron and shall comply with SABS 999 and 1407				
Glass	H4			
Glazing to be with patent rubber gaskets with glazing beads and comply with BS 952. Thickness of glass shall be in accordance with table 1 (Part N : Glazing). Safety glass shall comply with SABS 1263. The National Building Regulations shall be observed with regard to the specification of safety glass				
Design indemnity	H4			
The contractor is to submit with his tender the "Form of Indemnity", annexed to this document, fully completed and signed				
Drawings	H4			
Tenderers are referred to architect's drawings annexed to these bills of quantities for full details of windows, doors, etc				
Pricing.	H4			
All window prices should include alluminium louvres as shown				
General	H4			
Workshop drawings to be approved by the architect before manufacture				
Ironmongery	H4			

Prices for windows shall allow for two standard stainless steel side/top hung friction hinges and one bronze anodised aluminium handle per opening sash. Prices for doors shall allow for two pairs of standard flush bolts to double doors and one-and-a-half pairs of standard hinges per door leaf.				
Natural annodised series 340 aluminium windows, doors, etc including sub-frames, fixing, silicone sealant all round, ironmongery and glazed with 6,38mm clear laminated safetyglass unless otherwise stated	H3			
Windows	H2			
Aluminium window size 1908 x 1000mm high - W02	No	2		
Aluminium window size 1908 x 1000mm high - W03	No	8		
Doors	H2			
Aluminium door size 1511 x 2032mm high - D08	No	1		
Aluminium door size 5775 x 2450mm high - D07	No	1		
Aluminium door size 2980 x 2700mm high - SF02	No	2		
TOTAL SECTION NO.3 - BILL NO.9 - METALWORKS				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 10	**H1**			
PLASTERING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

INTERNAL PLASTER	H2			
Cement plaster on brickwork	H4			
On walls	m2	1595		
EXTERNAL PLASTER	H2			
On walls	m2	522		
CLADDING				
Cladding to the external walls	m2	145		
TOTAL SECTION NO.3 - BILL NO.10 - PLASTERING				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO.11	**H1**			
TILING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Descriptions	H4			

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				
WALL TILING	H2			
On walls	m2	522		
FLOOR TILING	H2			
On floors and landings	m2	870		
Skirting formed of ceramic tile cut to 300 x 75mm high	m	377		
TOTAL SECTION NO.3 - BILL NO.11 - TILING				
SECTION NO.3	**H1**			
BUILDING WORK	**H1**			
BILL NO.12	**H1**			
PLUMBING AND DRAINAGE	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

SUPPLEMENTARY PREAMBLES	H2			
Polycop polypropylene pipes:	H3			
Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated				
Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions				
All pipe diameters are nominal external				
Polylink polypropylene pipes:	H3			
Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints				
Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured				
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers				
Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers				
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same				
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions				
All pipe diameters are nominal external				
Concrete pipes:	H3			
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings				

Vitrified clay pipes:	H3			
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid				
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings				
uPVC pipes and fittings:	H3			
Soil, waste and vent pipes and fittings shall be solvent weld jointed				
uPVC pressure pipes and fittings:	H3			
Pipes for water supply shall be of the class stated				
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings				
Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints				
Copper pipes:	H3			
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground				
Fixing of pipes	H3			
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level				
Lead pipes and fittings	H3			
All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel				
Reducing fittings	H3			
Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained				
Wire gratings	H3			
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings				
Septic tanks	H3			
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions				
Exposed concrete surfaces	H3			
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster				
Excavations	H3			
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	H3			
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L : Medium-pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding				
Flush pans	H3			
Flush pans shall have straight or side outlets and "P" or "S" traps as necessary				
Stainless steelbasins, sinks, wash troughs, urinals, etc.	H3			
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable				
Waste unions	H3			
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings				
Steel sectional water tanks	H3			
Tanks shall comply with SABS CKS 114				
Densyl petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.	H3			
Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described				
Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc				
EQUIPMENT	**H2**			
SEWER SYSTEM	**H2**			
Main Sewer Line - underground	**H3**			
Pipe to be UPVC Class 34 (Marley or equal)	H4			
Pipe to be bedded in accordance with SANS 1200LB and SANS 1200 LD	H4			
110 mm Ø piping	m	87		
50 mm Ø piping	m	43,5		
Extra Over for Fittings	H4			
110 mm Ø 45° bends	No	25		
110 mm Ø Y-Junction UYAR42 Ribbed L/S Junction	No	100		
110 mm Ø 22,5° bends	No	25		
110 mm Ø UAP43 Rodding Eye c/w thrust block	No	25		
Thrust Blocks 0,3 X 0,3 X 0,3 m in concrete for pipe direction changes and rodding	No	50		
Excavation trenches 1m wide X 2,2m deep average (Rate to include for fill and compact in line with SABS 1200 LB	No	325		
Brick Manholes constructed in line with SABS 1200LB and SABS 1200 LD c/w step irons, benched to detail, manhole covers and concrete covers	No	25		

Main Sewer Line - above ground	H4			
Pipe to be UPVC Class 9 in accordance with SANS 10252 Part 2	H4			
110 mm Ø piping	m	29		
50 mm Ø piping	m	43,5		
Extra Over for Fittings	H4			
110 mm Ø 45° bends	No	25		
110 mm Ø Y-Junction R/S with I.E	No	50		
110 mm Ø 22,5° bends	No	25		
110 mm Ø I.E on Line	No	50		
110 mm ØPipe Hangars c/w threaded bar and double lock-nut	No	125		
50 mm ØPipe Hangars c/w threaded bar and double lock-nut	No	100		
Extra Over for Fittings	H4			
50 mm Ø 45° bends	No	25		
50 mm Ø Y-Junction	No	50		
50 mm Ø glued joint socket	No	125		
50 mm Ø 90° bends Incl. I.E	No	100		
110 mm Ø one-way vent valve	No	25		
50 mm Ø - 110 mm Ø transformer	No	50		
110 mm Ø Kimberley Socket tranformation from internal to external piping	No	50		
50 mm Ø Back vent to main stack	No	250		
110 mm Ø I.E on Line	No	25		
PVC Weld for underground Pipes	No	50		
Two Way Vent Valve	No	50		
STORAGE TANK	H2			
27000 litre 2750 dia. X 4800mm High complete on 10m high frame built by structural engineers	No	5		
GEYSER	H2			
200 litre geyser complete with 2kW heat pump located in refuse yard Hot Water system is for the supply of the kitchen area only	No	5		
RAINWATER DISPOSAL	H2			
0,6mm Galvanised sheet iron with "Chromadek" finish on one side	H4			
100 x 125mm Eaves gutters with beaded front edge	m	116		
Extra over eaves gutter for angle	No	100		
Extra over eaves gutter for stopped end	No	100		
Extra over eaves gutter for outlet for 100mm diameter pipe	No	100		
100mm Diameter rainwater pipes	m	72,5		
Extra over rainwater pipe for eaves or plinth offset 450mm projection	No	100		
Extra over rainwater pipe for shoe	No	100		

SANITARY PLUMBING	H2			
Extra heavy duty structured wall uPVC sewer pipes to SANS 1601	H4			
50MM Pipes	m	58		
110mm Pipes	m	174		
Extra over extra heavy duty structured wall uPVC sewer pipes to SANS 1601 for fittings	H3			
50mm Access bend	No	100		
110mm Access bend	No	100		
50mm Junction	m	29		
SANITARY FITTINGS	H2			
Basins	H4			
Manufactured of acrylic material (white colour) as per developers prefered choice and range	No	70		
Toilets	H4			
Wall-hung (white color) with Gerberit or similar system as per developers prefered choice	No	50		
White vitreous china paraplegic semi close couple boxed suite with purpose made chromium plated side flush lever and purpose made uraa seat	No	10		
Showers				
RS PRO crome shower heads	No	10		
Acrylic Bath				
1700 x 700mm Acrylic type bath with waste outlet, overflow grating with coupling and pair of handles, bedded in position.	No	10		
Kitchen sink	H4			
Stainless steel double bowl sink as per developers prefered choice and range	No	10		
TRAPS ETC	**H3**			
uPVC	**H4**			
32 x 40mm Reseal "P" or "S" trap	No	1390		
40mm Reseal "P" or "S" trap	No	745		
Floor drain to Architect's spec	No	10		
TAPS, VALVES, ETC	**H3**			
15mm Brass bib-tap	No	10		
Chrome plated elbow action basin mixer	No	60		
Chrome plated single lever sink mixer including aerated swivel	No	10		
outlet and mounting kit complete				
15mm Chromium plated pillar tap	No	75		
Wall type bath mixer with diverter and wall mounted hand shower holder including hand shower and hand shower hose	No	100		
Chrome plated wall type sink mixer including aerated swivel outlet	No	100		
550mm Chrome plated shower rail set including sliding shower	No	25		
holder				

Chrome plated single lever underwall bath mixer complete	No	25		
Hand shower complete with hand shower rose and shower arm	No	25		
with wall flange				
15mm chromium plated angle regulating valve and flexible	No	500		
connection pipe				
PA3:522 "Masterflo 1" pressure control valve with vacuum	No	150		
breaker				
TOTAL SECTION NO.3 - BILL NO.12 - PLUMBING AND DRAINAGE				
SECTION NO.3	**H1**			
BUILDING WORK	**H1**			
BILL NO.13	**H1**			
ELECTRICAL WORKS	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				
Note: Contractor to provide temporary generator power on site during installation for testing and temporary power supply for the duration of the construction period	**H1**			
Complete installation: Reticulation; electrical, telephone and data)	H4			
NOTE: Tenderers are advised to study the specifications before pricing the bill.	H4			
DISTRIBUTION BOARDS	H2			
Supply, Install, test and commision distribution board in the bulding - Flush mounted distribution board cupboards, c/w all switchgear and breakers	H4			
DB-A	No	5		
Label all circuits and install signage to the panels and COC	SUM	5		
Supply cable	SUM	5		
EXTERNAL LIGHTING	H2			
Supply, deliver, install, connect, test and commissioning the following external light fittings	H4			
TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 15W LED lamp	No	125		
TYPE F03 - Vapour proof flourescent light fitting, fitted with 2x36W T5 lamps	No	125		
WIRING & TERMINALS	H3			
Supply, delivery and installation of Cu Conductors:	H4			
2,5mm² PVC insulated conductor	H4			
Supply and delivery	m	362,5		
Installation	m	362,5		
2,5mm² bare copper earth wire	H4			
Supply and delivery	m	406		
Installation	m	406		
Day Light switch	H4			
Supply and installation	No	5		

LIGHTING INSTALLATIONS	H2			
WIREWAYS	H3			
Supply and Install Trunking	H4			
Supply and install P8000 trunking suspended from slab and trusses in ceiling void.	H4			
Supply and delivery	m	72,5		
Installation	m	72,5		
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.	H4			
20mm diameter	H4			
Supply and delivery	m	211,7		
Installation	m	211,7		
Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted	H4			
100 x 50 x 50 mm, c/w applicable cover	H4			
Supply and delivery	No	350		
Installation	No	350		
65mm round box, c/w cover				
Supply and delivery	No	100		
Installation	No	100		
ACCESSORIES	H3			
Supply, deliver and install accessories to boxes	H4			
5A, 3-pin socket outlets to trunking	No	75		
WIRING & TERMINALS	H3			
Supply, delivery and installation of Cu Conductors:	H4			
1,5mm² PVC insulated conductor	H4			
Supply and delivery	m	420,5		
Installation	m	420,5		
2,5mm² bare copper earth wire	H4			
Supply and delivery	m	377		
Installation	m	377		
LIGHT FITTINGS	H3			
Supply, deliver, install, connect, test and commissioning the following light fittings	H4			
TYPE F01 - 1200x300mm surface mounted flourescent light fitting	No	150		
TYPE C1 - 230V 103mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	150		
TYPE F02 - Open channel flourecscent light fitting	No	100		
Supply, deliver, install, connect, test and commissioning of Sensors	H4			
Supply, deliver, install, connect, test and commissioning occupancy sensors	H4			

WSD PDT	No	100		
Adaptors 5 Amp 2 Way	No	50		
Adaptors 5 Amp 4 Way	No	25		
SMALL POWER INSTALLATION	H2			
WIREWAYS	H3			
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.	H4			
20mm diameter	H4			
Supply and delivery	m	211,7		
Installation	m	211,7		
Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w 1.6mm draw wires	No	50		
Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover	H4			
100 x 100 x 50 mm	H4			
Supply and delivery	No	150		
Installation	No	150		
Supply, deliver and installation of the 1 compartment, 1 cover Midland power skirting complete with all accessories including internal/external bends, end caps etc.	H4			
as per ground floor drawing	m	275,5		
Supply and Install Trunking	H4			
Supply and install 5A 3 pin power trunking suspended from slab and trusses in ceiling void.	H4			
Supply and delivery	No	150		
Installation	No	150		
Supply, delivery and installation of socket outlets	H4			
16 A, 3-pin standard white SSO	H4			
Flush Mounted	No	75		
Power skirting mounted	No	75		
16 A, 3-pin double white SSO	H4			
Flush Mounted	No	75		
16 A, 3-pin dedicated red SSO	H4			
Power skirting mounted, 45 degree (including plug top)	No	75		
Supply and installation of power skirting accessories	H4			
Blank cover plate suitable for RJ 11 telephone outlet	No	100		
WIRING & TERMINALS	H3			
Supply, Deliver and installation of Cu Conductors:	H4			
2.5mm² PVC insulated conductor	H4			

Supply and delivery	m	362,5		
Installation	m	362,5		
2.5mm² bare copper earth wire	H4			
Supply and delivery	m	130,5		
Installation	m	130,5		
PROVISIONAL SUMS	H2			
Provisional Sums exclude the cost of Overheads, Preliminaries and Profit				
Provisional Sums:	H4			
Allow Eskom connection fee of R 30 000,00 (Thirty Thousand Rands)	SUM	1		
TOTAL SECTION NO.3 - BILL NO.13 - ELECTRICAL WORKS				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 14	**H1**			
GLAZING	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

TOPS, SHELVES, DOORS, MIRRORS, ETC	H2			
4mm Silvered float glass copper backed mirrors with 10 mm bevelled and polished edges holed for and fixed with chromium plated dome capped mirror screws with rubber buffers to plugs in brickwork or concrete	H3			
Mirror 400 x 600mm high with four (4) screws	No	10		
TOTAL SECTION NO.3 - BILL NO.14 - GLAZING				
SECTION NO.3	**H1**			
BUILDING WORKS	**H1**			
BILL NO. 15	**H1**			
PAINTWORK	**H1**			
For preambles see "Model Preambles for Trades (2008 Edition)" and Supplementary preambles as specified in the Trades.				

PAINTWORK ETC TO NEW WORK	H2			
ON FLOATED PLASTER	H2			
Plascon Polvin Super Acrylic to interior new cement plaster (NW 205).Surface to be dry, sound and clean and cured for a minimum of 14 days, with a moisture content measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Polvin Super Acrylic (EPL) with 1 hour drying time between coats, for a maintenance cycle of 5 years in a C1 - inland environment.	H4			
On external plastered walls	m2	522		
On internal plastered walls	m2	1595		

ON CEILING BOARDS				
On ceiling	m2	435		
On cornice	m2	348		
ON SMOOTH CONCRETE	H2			
Prepare surfaces and remove all loose material, and rinse. Apply flexible crackfiller to holes and cracks, one coat plaster primer and two coats Plascon Professional Copolymer Acrylic paint	**H3**			
On soffits of concrete slabs	m2	464		
Plascon Sure Coat Gloss Enamel to exterior new fibre cement (NW 174).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 2 years in a C1 - inland environment.	H4			
On fascias and barge boards	m2	174		
Plascon Sure Coat Gloss Enamel to interior new fibre cement (NW 274).Surface to be dry, sound and clean, with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale - 8% or less. Prime with one coat of Plascon Plaster Primer (UC 56) with an overcoating time of 16 hours and finish with two coats of Sure Coat Gloss Enamel (SGE) with 16 hours drying time between coats, for a maintenance cycle of 4 years in a C1 - inland environment.	H4			
On window sills not exceeding 300 mm girth	m	130,5		
ON METAL	H2			
Plascon Velvaglo Satin to exterior new mild steel (NW 683).Surface to be clean and dry. Remove surface contaminants using Plascon Aquasolv Degreaser (GR 1) with bristle brush or Brillo pads. Rinse thoroughly with tap water until surface is water break-free. Remove rust and millscale by abrasive blasting to ISO 8501 - 01:1988 - Sa2½ or by hand/mechanical wire brushing to St3of the same standard. Allow to dry completely and prime within 4 hours of cleaning. Prime with one coat of Metal Primer (UC 501) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 3 years in a C1 - inland environment.	H4			
On door frames	m2	232		
On gates, grilles, burglar screens, balustrading, etc (both sides measured over the full flat area)	m2	116		
On outside of eaves gutters and rainwater pipes before fixing not exceeding 300mm high	m	58		
On roof sheeting	m	667		
ON WOOD	H2			
Plascon Velvaglo Satin to interior new wood (NW 571).Surface to be dry, sound and clean. Wash knots and resinous areas with Lacquer Thinners (ILS 1) and coat with Woodcare Knot Seal (PK 2) and apply one coat of Plascon Woodcare Pretreatment (WWP 1), overcoated within 48 hours with a moisture content, measured with a Doser Hygrometer (or equivalent), of BD 2 scale (A1-A5) < 14% or less. Prime with one coat of Wood Primer (UC 2) with an overcoating time of 16 hours and finish with two coats of Velvaglo Satin (VLO) with 16 hours drying time between coats, for a maintenance cycle of 7 years in a C1 - inland environment.	H4			
Three coats matt varnish	H4			
On doors	m2	87		
TOTAL SECTION NO.3 - BILL NO.15 - PAINTWORK				
SECTION 3 - CAFETERIA - TOTAL EXCLUDING VAT				

SECTION 4 - SEPTIC TANK

DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SECTION NO.4	**H1**			
BILL NO.1	**H1**			
SEPTIC TANK				
Supply and installation of a reinforced concrete septic tank with brickwork lining with volume size 5000 x 5000 x 6000mm, with 110mm diameter rockler pipe at a length of 250mm bedded 1000mm deep underground, including excavation, backfiling, pipe work, fittings and joints complete as per the engineer's specification.	No	2		
TOTAL SECTION NO.4 - BILL NO.1 - SEPTIC TANK				
SECTION 4 - SEPTIC TANK - TOTAL EXCLUDING VAT				

SECTION 5 - SPECIALIST WORKS

SECTION NO. 5	**H1**			
BILL NO.1	**H1**			
PARKING CARPOTS				
Parkings, etc.				
Supply and installation of structural steel double bay carports, plan view area size 10m x 2.7m including 100mm diameter hollow steel posts, hollow beams, braces, purlins, bolts and nuts, IBR sheeting complete as per the manufacturer or engineer specification.	no	10		
Excavation in eart not exceeding 2m deep				
In holes	m3	22		
Extra over bulk excavation in earth for excavation in				
Soft rock	m3	2		
Hard rock	m3	1		
Extra over all excavations for carting away				
Surplus material from excavations and/or stock piles on site to a dumping site to be located	m3	22		
Keeping excavations free of water				
Keeping excavations free of water other than subterranean water	Item	1		
Reinforced Concrete cast against excavated surfaces				
35MPa				
Bases	m3	22		
LAYER WORK				
150mm crushed G1 material compacted to 88% Mod AASHTO Desnsity	m3	6		
RAINWATER DISPOSAL				
0.6mm Galvanised sheet iron with "Chromadek" finish on one side				
100 x 125mm Eaves gutters with beaded front edge	m	200		
Extra over eaves gutter for angle	No	100		
Extra over eaves gutter for stopped end	No	100		

Extra over eaves gutter for outlet for 100mm diameter pipe	No	100		
100mm Diameter rainwater pipes	m	60		
Extra over rainwater pipe for eaves or plinth offset 450mm	No	100		
projection				
Extra over rainwater pipe for shoe	No	100		
STEELWORK				
10mm support and anchor plate	m2	15		
Extra over bolt anchorage	No	60		
Road signs				
Standard "STOP" sign with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc	No	1		
Paintwork				
Two coats reflective road marking paint on tarmacadam				
Etching primer and two coats reflective road marking paint on concrete				
IBR roof sheeting	m	75		
Lines	m	80		
Numeral or letter 250mm high	No	3		
Traffic arrow 400 x 400mm wide extreme	No	3		
Road signs				
Standard "STOP" sign with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc	No	2		
Paintwork				
Two coats reflective road marking paint on tarmacadam				
Etching primer and two coats reflective road marking paint on concrete				
IBR roof sheeting	m2	125		
Line 10mm wide	m	250		
Numeral or letter 250mm high	No	3		
Traffic arrow 400 x 400mm wide extreme	No	3		
TOTAL SECTION NO 5 BILL NO 1 - CARPORTS				
SECTION NO. 5	**H1**			
BILL NO.2	**H1**			
AIR CONDITIONERS				
12000BTU Mid Wall Air Conditioner (Supply, Install, Isolator and Remote control with batteries)	No	50		
TOTAL SECTION NO 5 BILL NO 2 - AIR CONDITIONERS				
SECTION NO. 5	**H1**			

BILL NO.3	**H1**			
FIRE AND SMOKE DETECTOR SYSTEM				
Supply and installation of SANS 10139 approved fire and smoke detector system with stanby power supply batteries, fire sensors, monitoring controllers, input and output devices, gas control unit, including panels complete.	No	70		
TOTAL SECTION NO 5 BILL NO 3 - FIRE AND SMOKE DETECTOR				
SECTION 5 - SPECIALIST WORK - TOTAL EXCLUDING VAT				
SECTION 6 - PROVISIONAL SUMS				
SECTION NO.6	H1			
PROVISIONAL SUMS	H1			
BILL NO.1	H1			
SUPPLEMENTARY PREAMBLES	H2			
IT FIXED REQUIREMENTS WORKS				
NOTE: Tenderers are referred to the definition of general attendance on nominated sub-contractors given in Clause 9 of the Preliminaries				
NOTE: Under no circumstances may any Prime Cost - Provisional Amount, etc be extended at an amount lower than the amount given in the Bill				
IT FIXED REQUIREMENTS WORKS SUPPLY AND INSTALLATION	H2			
IT Fixed Requiremenst	H4			
Allow a provisional sum of R350 000,00 (Three Hundred and Fifty Thousand Rands) for the supply and installation of IT Fixed Requirements	SUM	1		
Allow profit for the supply and installation of IT Fixed requirement works	Item	1		
Allow attendance for the supply and installation of IT Fixed requirement works	Item	1		
TOTAL SECTION NO.6 - BILL NO.1 - PROVISIONAL SUMS-SPECIALIST WORK - IT REQUIREMENTS				
SECTION NO.6	**H1**			
PROVISIONAL WORKS	**H1**			
BILL NO.2	**H1**			
LANDSCAPING	**H2**			
SUPPLEMENTARY PREAMBLES	**H1**			
contractors given in Clause 9 of the Preliminaries.				
LANDSCAPPING COSTS ALLOWANCES	H2			
Landscaping Cost Allowance	H4			
Allow a provisional sum of R350 000,00 (Three Hundred and Fifty Thousand Rands) for the supply and installation of landscapping	SUM	1		
Allow profit for the supply and installation of landscaping	Item	1		
Allow attendance for the supply and installation of landscaping.	Item	1		
TOTAL SECTION NO.6 - BILL NO.2 - PROVISIONAL SUMS-SPECIALIST WORK - LANDSCAPING				

SECTION NO.6	**H1**			
PROVISIONAL SUMS	**H1**			
BILL NO.3	**H1**			
SUPPLEMENTARY PREAMBLES	**H2**			
RECEPTION COUNTER				
Note. Contractor to obtain procurement SOW and/or liaise with SWGC's Project Team.	H3			
The plugs, data points and the cabling must be entailed on the supply and installation of the tables				
RECEPTION COUNTER	H2			
Reception Counter (Including Joinery Fittings, Shelving and Units)	H4			
Allow provisional sum of R250 000,00 (Two Hundred and Fifty Thousand Rands) for the supply and installation of the receptionist counter, including timber, silstone and back painted glass complete as per the project manager's specification.	SUM	1		
Allow a profit for the supply and installation of the reception counter including chairs	Item	1		
Allow attendance for the supply and installation of the reception counter including chairs	Item	1		
TOTAL SECTION NO.6 - BILL NO.3 - PROVISIONAL SUMS - OFFICE FURNITURE - RECEPTION COUNTER				
SECTION NO.6	H1			
PROVISIONAL SUMS	H1			
BILL NO.4	H1			
KITCHEN CUPBOARDS				
Note. Contractor to obtain procurement SOW and/or liaise with SWGC's Project Team.	H3			
Kitchen Cupboards (Including Joinery Fittings, Shelving and Units)	H4			
Allow provisional sum of R350 000,00 (Three Hundred and Fifty Thousand Rands) for the supply and installation of the kitchen cupboard, including granite tops, formica door and drawer fronts, melawood internal shelves complete as per the Project manager's specification.	SUM	1		
Allow a profit for the supply and installation of the kitchen counter including chairs	Item	1		
Allow attendance for the supply and installation of the kitchen counter including chairs	Item	1		
TOTAL SECTION NO.6 - BILL NO. 4 - PROVISIONAL SUMS - KITCHEN CUPBOARDS				
SECTION 6 - PROVISIONAL SUMS - TOTAL EXCLUDING VAT				
SECTION NO.7	H1			
BILL NO.1	H1			
CONTIGENCIES	H2			
Allow an amount of R2 000 000,00 (Two Million Rands) for Contingencies re any unforeseen work, contingencies to be used at the discretion of the client through the principal agent	SUM	1		
TOTAL SECTION NO.7 - BILL NO.1 - CONTINGENCIES				

SUMMARY				
SECTION 1 - PRELIMINARIES AND GENERAL				
SECTION 2 - STUDENT ACCOMODATION				
SECTION 3 - CAFETERIA				
SECTION 4 - SEPTIC TANK				
SECTION 5 - SPECIALIST WORKS				
SECTION 6 - PROVISIONAL SUMS				
SECTION 7 - CONTINGENCIES				
TOTAL EXCLUDING VAT				
VAT @ 15%				
TOTAL INCLUDING VAT				