

No.	Description	Unit	Quantity	Rate	Amount
	<p><b><u>SECTION NO. 01</u></b>  <b><u>BILL NO.1</u></b>  <b><u>PRELIMINARY &amp; GENERAL</u></b></p> <p><b><u>Fixed Charge Items</u></b>  Contractual Requirements</p> <p><b><u>Establish Facilities on Site:</u></b>  <u>Facilities for Engineer</u>  a) Supply and erect name board on site</p> <p><u>Facilities for Contractor and Engineers</u>  (a) Office and Storage Sheds  (b) Workshops  (c) Ablution &amp; Latrine Facilities  (d) Tools &amp; Equipment  (e) Water supply, electricity and communication  (f) Dealing with Water on Site  (g) Access to Site  (h) Plant  (i) Setting out of works  (j) Laboratories and Testing</p> <p><b><u>Once off Contract costs</u></b>  Site Establishment  Healthy and Safety Requirements &amp; Induction  Environmental Requirements  Guarantee and Retention  The contractor shall make allowance within the tender cost providing traffic control, working in restricted space and barricading of the site for the duration of the contract.  Insurance  Protection of Works  Proving and Relocation of Services  Other Fixed Charge Obligations  Operations Manual  Testing, Pre-commissioning and Commission  Removal of Site Establishment</p> <p><b><u>Time Related Items</u></b>  a) Contractual Requirements</p> <p><b><u>Facilities for CONTRACTOR</u></b>  Operate and maintain facilities on site for the duration of the site  Supervision for duration of Construction  Company &amp; Head Office Overhead Costs</p> <p><b><u>MAINTENANCE AND SERVICE</u></b>  Allow for a 12 months maintenance and service period, carried out in monthly inspections, on all plant and equipment under this contract.</p>				

The electrical Subcontractor are required to give a twelve (12) month guarantee to replace, free of charge, any portion of the electrical installation in which any manufacturing defects may develop during that period, such period to commence from the date of handover of the complete electrical installation.

The electrical Subcontractor shall in the course of the maintenance period repair or replace defective parts if required and shall use only genuine standard parts produced by the manufacturer of the original part.

Allow for a 12 months maintenance and service period, carried out in monthly inspections, on all plant and equipment under this contract.

The Mechanical Subcontractor are required to give a twelve (12) month guarantee to replace, free of charge, any portion of the electrical installation in which any manufacturing defects may develop during that period, such period to commence from the date of handover of the complete electrical installation.

The Mechanical Subcontractor shall in the course of the maintenance period repair or replace defective parts if required and shall use only genuine standard parts produced by the manufacturer of the original part.

#### **OCCUPATIONAL HEALTH AND SAFETY**

Without limiting the generality of the provisions of clause 7.0 of the Principal Building Agreement, the Contractors attention is drawn to the provisions of the Construction Regulations, 2003 issued in terms of Occupational Health and Safety Act, 1993 in which it is specifically stated and the Employer shall ensure that the Contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor is referred to the occupational Health and Safety of Construction attached to this document and the contractor shall price for compliance with the Act and the regulations and the provisions of the aforementioned Health and Safety Specification.

The Legal requirements contemplated in Construction Regulation CR (1) (g) "A client must ensure that potential principal contractors submitting tenders, have made adequate provision for the cost of health and safety measures" And CR 5(1) (h) "A Client must ensure that the principal contractor to be appointed has the necessary competencies and resource to carry out the construction work safety" Shall apply and failure to price the Health and Safety items will result in the tender being deemed non-responsive The contractors attention is further drawn to Section 41 of the OCCUPATIONAL HEALTH AND SAFETY ACT NO.85 1993 : THIS ACT NOT AFFECTED BY AGREEMENTS Subject to the provisions of section 10 (4) and 37 (2), a provision of this Act or a condition specified in any notice or direction issued there under or subjects to which exemption was granted to any person under section 40, shall not be affected to any condition of any agreement whether

Allow for the necessary Workman's Compensation Fund or FEM contributions for the duration of the project with and including renewals F:..... V:..... T:.....

Allow the preparation and approvals of the project - specific H & S and File (CR 7 (1) (a) F:..... V:..... T:.....

Allow for the implementation and maintenance of project - specific H & S Plan and File (CR 7) F:..... V:..... T:.....

Allow for the appointment of a Full -Time Qualified **Construction Health and Safety Officer** to assist in the control of all health and safety aspects on site as per CR8

Allow for provision of Basic Emergency preparedness and Response equipment and minimum Level 2 First Aider/s F:..... V:..... T:.....

Provide, supply and maintain for each employee for the following SANS approved personal Protective equipment and clothing (Including Hard Hat) as per the site requirement - Security Access Control Cards

Overall/work suit (100% Cotton) F: ..... V:..... T: .....

High Visibility reflecting vest and /or bibs F ..... V:..... T: .....

Safety boot/shoes (Steel - toes) F: ..... V:..... T: .....

Safety Gumboot (Steel - toes) F:..... V:..... T:.....

Ear Plugs/Muffs F:..... V:..... T:.....

Dust Masks (at least FF2 type) F:..... V:..... T:.....

Respirators F:..... V:..... T:.....

Safety goggles F:..... V:..... T:.....

Temporary handrails, toe boards, etc. other than for access scaffoldings

F..... V..... T.....

Personal fall arrest and rescue equipment with and including life lines and associated equipment's

F..... V..... T.....

SANS approved safety netting (orange colour minimum 1,2 meter high)

F.....V.....T.....

Temporary warning signs and symbols

F.....V.....T.....

Road traffic signs in terms of the South African Road Traffic signs Manual

F.....V.....T.....

General Compliance with Environmental Management Plan

**SECTION NO.01 TOTAL**

## **SECTION NO.02: SUB-STRUCTURE**

No.	Description	Unit	Quantity	Rate	Amount
	<p><b><u>SECTION NO. 02</u></b>  <b><u>SUBSTRUCTURE</u></b>  <b><u>BILL NO. 1</u></b>  <b><u>EARTHWORKS</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u></b></p> <p>The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).</p> <p><b><u>PREAMBLES</u></b>  <b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary products in descriptions</u></b>  Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent</p> <p><b><u>Nature of material to be excavated</u></b>  The material to be excavated is assumed to be predominantly of a composition that will allow excavation in 'earth' as specified, but including a percentage of excavation in 'soft rock' and 'hard rock'</p> <p><b><u>Carting away of excavated material</u></b>  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</p> <p><b><u>Bulking</u></b>  No allowance has been made for bulking, contractor to allow accordingly. No claims in this regard will be entertained and bidders are therefore to allow accordingly for same in their rates.</p> <p><b><u>Filling</u></b>  Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material that may be required in respect of the founding requirements.</p>				

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Carried to forward

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**Section No. 2**

**Bill No. 1**

**Earthworks**

**Dewatering of excavations**

The Contractor shall allow for removing seepage and other water from subterranean sources from the excavations by pumping, bailing or otherwise Accurate records of all such dewatering shall be kept to determine the total volume of water so removed and a clear distinction shall be made between water from subterranean sources and other water

**Excavation for working space in rock**

Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for

working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be

**Testing**

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

**Proximity to existing structures**

Bidders are to note that some of the following measured work is to be undertaken in close proximity to existing buildings. No claims in this regard will be entertained.

**Density testing on filling**

Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally

**TEMPORARY BARRIERS, SCREENS, ETC.**

1,00	2100mm High IBR sheeting fixed to timber in gum pole posts at 4,5. centres.	m	1100
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**SITE CLEARANCE ETC**

**Site clearance**

2,00	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc (Labour Intensive)	m <sup>2</sup>	4020
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3,00

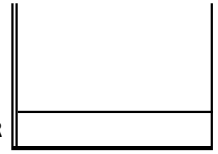
Stripping average 300mm thick layer top soil and  
depositing material in prescribed stock piles on  
site.(Labour Intensive)

**Carried to Forward**

m<sup>2</sup>

5000

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<b><u>Brought Forward</u></b>				
<b><u>Section No. 2</u></b>				
<b><u>Bill No. 1</u></b>				
<b><u>Earthworks</u></b>				
<b><u>EXCAVATION, FILLING, ETC OTHER THAN BULK</u></b>				
<b><u>Excavation in earth not exceeding 2m deep</u></b>				
4,00	Trenches	m <sup>3</sup>	1410	
5,00	Holes	m <sup>3</sup>	610	
6,00	Reduce levels under surface beds (Labour Intensive)	m <sup>3</sup>	2150	
7,00	Thickening under surface beds etc (Labour Intensive)	m <sup>3</sup>	2150	
<b><u>Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 98% Mod AASHTO density</u></b>				
8,00	Not exceeding 500mm deep for placing and removing formwork to walls etc, 1500mm away from excavated face.	m <sup>2</sup>	960	
9,00	Exceeding 500mm not exceeding 1500mm deep for placing and removing formwork to walls etc, 1500mm away from excavated face	m <sup>2</sup>	480	
<b><u>Extra over trench and hole excavations in earth for excavation in</u></b>				
10,00	Soft rock	m <sup>3</sup>	300	
11,00	Intermediate material	m <sup>3</sup>	200	
12,00	Hard rock	m <sup>3</sup>	116	
<b><u>Extra over all excavations for carting away</u></b>				
13,00	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m <sup>3</sup>	3100,0	
<b><u>Risk of collapse of excavations</u></b>				
14,00	Sides of trench and hole excavations not exceeding 1,5m deep (Labour Intensive)	m <sup>2</sup>	2900	
15,00	Sides of trench and hole excavations exceeding 1,5m deep	m <sup>2</sup>	1450	
<b><u>Carried Forward</u></b>				
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**Brought Forward**

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**Section No. 2**

**Bill No. 1**

**Earthworks**

**Keeping excavations free of water**

16,00 Keeping excavations free from mud and all water other than from subterranean sources Item 62

**Imported filling of G7 material, filled and compacted to 98% Mod AASHTO density, in layers not exceeding 150mm thick, all in accordance with SABS 1200DM:**

19,00 Under floors, etc. m<sup>3</sup> 550

**Compaction of surfaces**

20,00 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 95% Mod AASHTO density m<sup>2</sup> 700

**Prescribed density tests on filling**

21,00 Modified AASHTO Density' test on fill material No 48

22,00 'Field Density' test including 'Optimum Moisture Content' (four readings per test) on layer work No 48

23,00 Natural California Bearing test No 62

**SOIL POISONING**

**Approved brand of anti-termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years in accordance with SANS 5859.**

24,00 Under floors, etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming m<sup>2</sup> 7000

**Carried Forward**

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**Brought Forward**

R

**Section No. 2**

**Bill No. 1**

**Earthworks**

25,00

To bottoms and sides of trenches, etc. (Labour Intensive)

m<sup>2</sup>

1000

**Soil Poisoning Certificate**

26,00

Issue of Soil Poisoning Certificate by registered and authorised entity.

Item

2

**Carried forward to Section Summary**

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Section No. 2  
Bill No. 1  
Earthworks



**SECTION NO. 02**  
**SUBSTRUCTURE**  
**BILL NO. 2**

**PILING**  
**(CPAP WORK GROUP NO. 106 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Indemnity**

The contractor shall take full responsibility for piling work and shall guarantee that piling work will support the calculated loads laid down by the engineer without injurious settlement. The actual lengths of piles shall be determined on site by the contractor in consultation with the engineer who will give all assistance possible. This does not in any way relieve the contractor of his responsibility or obligation to provide the specified guarantee

**Scope of work**

The work comprises the installation of 300mm diameter continuous flight auger piles. The contractor is referred to drawing No 004 issued together with these bills of quantities in order to acquaint himself fully with the nature and scope of the work. Piles are to be installed subsequent to the site being excavated or filled to the correct levels. The building platform is already excavated, filled, levelled and compacted to the required levels.

**Drilling: Classification of material**

Hard rock shall mean granite, quartzitic sandstone or other rock of similar hardness, the removal of which would normally require drilling, wedging and splitting or the use of explosives Earth shall mean all ground other than that classified as hard rock and shall include madeup ground and loose stones or pieces of concrete not exceeding  $0,03 \text{ m}^3$  in volume as well as hard material the removal of which would normally warrant the use of pneumatic tools and which includes hard shale, ferricite, compact oukclip and material of similar hardness

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	<b><u>Section No. 2</u></b>		
	<b><u>Bill No. 1</u></b>		
	<b><u>Piling</u></b>		
	<b><u>GUARANTEE AND INSURANCE</u></b>		
1,00	Insurance policy against claims arising from the installation of piling up to a limit of R5 000 000.00 (Five Million Rand) per claim with no limit on the number of claims that may occur and effective for a period of 10 years from the date of completion of the contract	Item	
	<b><u>ESTABLISHMENT</u></b>		
2,00	Transporting to and establishment on site of necessary plant for the execution of the work and removal thereof on completion	Sum	2
	<b><u>SETTING UP</u></b>		
3,00	Setting up plant at pile position	No	870
	<b><u>CONTINUOUS FLIGHT AUGER (CFA) PILES</u></b>		
	<b><u>Continuous flight auger drilling not exceeding 10m deep in earth below ground level</u></b>		
4,00	300mm to 500mm Diameter pile shafts	m	8800
	<b><u>Continuous flight auger drilling exceeding 10m and not exceeding 15m deep in earth below ground level</u></b>		
5,00	300mm to 500mm Diameter pile shafts	m	8800
	<b><u>Continuous flight auger drilling in strata of a more difficult character</u></b>		
6,00	Extra over drilling in earth for drilling in soft rock	m <sup>3</sup>	3200
7,00	Extra over drilling in earth for drilling in hard rock	m <sup>3</sup>	3000
	<b><u>Extra over continuous flight auger drilling for carting away</u></b>		
8,00	Surplus material from pile shafts etc to a dumping site to be located by the contractor	m <sup>3</sup>	5700
	<b><u>25MPa/19mm reinforced concrete to continuous flight auger piles</u></b>		
9,00	300mm to 500mm Diameter piles	m <sup>3</sup>	740
	<b><u>TEST CUBES</u></b>		
10,00	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	136
	<b><u>REINFORCEMENT (PROVISIONAL)</u></b>		
	<b><u>High tensile steel reinforcement in continuous flight auger piles</u></b>		
11,00	Various diameter bars in lengths exceeding 13m not		



exceeding 18m
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Tonnes
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90
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**Carried Forward**

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**Brought Forward**

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**Section No. 2**

**Bill No. 1**

**Piling**

**EXPOSING PILES FOR INSPECTION**

11,00	Exposing pile for inspection including excavation 1m deep in earth and backfilling	No	870
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**TRIMMING ETC**

**Stripping back head of concrete pile for a height not exceeding 75mm to expose reinforcement, including trimming to defined level and bending reinforcement as necessary for casting into pile cap**

12,00	300mm Diameter pile	No	870
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**TESTING**

13,00	Transporting to and establishment on site of necessary testing plant for the execution of the work and removal thereof on completion	Item	2
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14,00	Installing 300mm to 500mm diameter pile to a depth not exceeding 15m below ground level and testing to a maximum load of 550kN	No	4
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15,00	Integrity testing in-situ concrete pile	No	104
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**Carried to Collection Summary**

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Section No. 2  
Bill No. 1  
Piling



**SECTION NO. 2**  
**SUBSTRUCTURE**

**BILL NO. 3**

**CONCRETE, FORMWORK AND REINFORCEMENT**  
**(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE**  
**STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

Descriptions of concrete items shall be deemed to include for all necessary testing of concrete components and trail mixes

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Cost of tests**

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

Descriptions of concrete items shall be deemed to include for all necessary testing of concrete components and trail mixes

**Concrete:**

Rates for concrete shall be deemed to include for all necessary transportation, hoisting, etc. to render a perfect, sound and stable installation all to the satisfaction of the Structural Engineer.

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**Section No. 2**

**Bill No. 3**

**Concrete, Formwork and Reinforcement**

Bidders are to note that delay claims related to the supply of concrete decking, reinforcement etc. will not be entertained and are thus urged to take cognisance of quantities required and secure supply accordingly.

**Formwork**

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

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

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

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

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

All formwork to remain in position and only removed on approval of the Engineer.

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES**

**15MPa/19mm concrete**

1,00

Blidning

m<sup>3</sup>

130

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**Carried Forward**|

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**Brought Forward****Section No. 2****Bill No. 3****Concrete, Formwork and Reinforcement****REINFORCED CONCRETE CAST AGAINST****EXCAVATED SURFACES****25MPa/19mm concrete**

1,00 Ground Beams m<sup>3</sup> 740

2,00 Surface beds cast in panels on waterproofing m<sup>3</sup> 710

3,00 Walls /Retaining Walls m<sup>3</sup> 150

**30 MPa/19mm Concrete:**

4,00 Columns in foundations m<sup>3</sup> 170

**CONCRETE TESTING**

5,00 Making and testing 150 x 150 x 150mm concrete strength test  
cube (Provisional) No 50

**CONCRETE SUNDRIES****Finishing top surfaces of concrete smooth with a  
power float**

6,00 Surface beds, slabs, etc. m<sup>2</sup> 840

**MOVEMENT JOINTS ETC****Two layers of three ply malthoid in slip joints  
between horizontal concrete and brick surfaces  
including cement mortar bed**

7,00 Not exceeding 300mm wide. (Labour Intensive) m 20

**Expansion joints with 10mm bitumen impregnated  
softboard between vertical concrete and brick  
surfaces**

8,00 10mm Joints not exceeding 300mm high (Provisional)  
(Labour Intensive) m 20

**Saw-cut joints**

9,00 3 x 45mm Saw-cut joints on top of concrete, reamed out  
to 8mm. (Labour Intensive) m 500

10,00 3 x 25mm Saw-cut joints on top of concrete. m 300

**Horizontal construction joints through concrete  
including thick cement slurry to one face**

11,00 Surface beds not exceeding 300mm thick. m 180



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**Section No. 2**

**Bill No. 3**

**Concrete, Formwork and Reinforcement**

**REINFORCEMENT (PROVISIONAL) (CPAP WORK  
GROUP NO. 114)**

12,00	Mild and High tensile steel reinforcement to structural concrete work Bars of various diameters to concrete structures.	t	104
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**Fabric reinforcement**

13,00	Type Ref 245 fabric reinforcement in surface beds (Provisional)	m2	4400
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Carried to Collection Summary

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**SECTION NO. 2**  
**SUBSTRUCTURE**  
**BILL NO. 4**  
**MASONRY**

**(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**BRICKWORK**

**Sizes in descriptions**

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

**Cement mortar**

Unless otherwise described, all brickwork shall be built in 1:5 cement mortar

**Bagged and sealed walls**

Walls described as 'bagged and sealed' shall be deemed to include having the outer face of the innermost skin bagged with 1:6 cement and sand mixture and sealed with two coats "ABE" or other approved bitumen emulsion waterproofing coating

**Face bricks**

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

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**Carried Forward** |

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Brought Forward

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**Section No. 2**

**Bill No. 4**

**Masonry**

**Pointing**

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

**BRICKWORK**

**Foundations (Provisional)**

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

1,00	Half brick walls	m <sup>2</sup>	1300
2,00	One brick walls	m <sup>2</sup>	640
3,00	One Brickwalls in beamfilling	m <sup>2</sup>	420

**BRICKWORK SUNDRIES**

**Bagging and sealing the outer face of the inner skin of walls with 1:5 cement and sand mixture and seal with two coats 'Brixéal' bitumen emulsion waterproofing coating.**

4,00	To walls (Provisional). (Labour Intensive)	m <sup>2</sup>	290
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**Joint forming material in movement joints**

5,00	12mm Bitumen impregnated fibre board built in vertically through brick walls in foundations (Provisional) (Labour Intensive)	m	2100
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**Reinforcement to brickwork**

6,00	75mm wide reinforcement built in horizontally	m	2500
	150mm wide reinforcement built in horizontally	m	3300

**Galvanised hoop iron cramps, ties, etc.**

7,00	30 x 1,6mm Galvanised crimp wire wall ties 500mm long built into brickwork (Labour Intensive)	No	70
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Carried Forward

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Brought Forward

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**Section No. 2**

**Bill No. 4**

**Masonry**

**FACE BRICKWORK**

**Corobrik Firelight Satin FBX face bricks pointed with recessed horizontal and flush vertical joints:**

8,00	Extra over brickwork for face brickwork in foundations (External) (Provisional).	m2	640
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**Brick-on-edge header course copings, sills, etc. of Corobrik Firelight Satin FBS face bricks, pointed with flush joints on all exposed faces**

9,00	150mm Wide cut brick-on-edge sills set sloping and slightly projecting	m	630
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Carried Forwad to Collection Summary

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**SECTION NO. 2**

**SUBSTRUCTURE**

**BILL NO. 5**

**WATER PROOFING**

**(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Waterproofing**

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

**Proprietary branded products:**

Proprietary branded products are to be applied in strict accordance with the manufacturers instructions. Should the manufacturers instructions be found not to have been followed in any process relating to the product in relation to, but not limited to transportation, application (rates and methodology), treatment of existing surfaces etc., then all liability for such product shall be transferred to the appointed Main Contractor.

**DAMPPROOFING OF WALLS AND FLOORS**

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

1,00

In walls 1 (Labour Intensive)

m<sup>2</sup>

7400

R

| |

Carried Forward

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R | |

Brought Forward

R

**SECTION NO. 2**  
**SUBSTRUCTURE**  
**BILL NO. 5**

**One layer of 250 micron USB green waterproof sheeting(SANS 952-1985 type C) sealed at laps with pressure sensitive tape**

2,00	Under surface beds (Labour Intensive)	m <sup>2</sup>	8020
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**JOINT SEALANTS, ETC**  
**Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.**

3,00	10 x 10mm In expansion joints in floors or walls including raking out expansion joint filler as necessary (Provisional) (Labour Intensive)	m	150
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Carried to Forward Collection Summary

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**SECTION NO. 2**  
**SUBSTRUCTURE**  
**SECTION SUMMARY**

**Bill No.**

**1,00 EARTHWORKS**  
**2,00 PILING**  
**3,00 CONCRETE, FORMWORK AND REINFORCEMENT**  
**4,00 MASONRY**  
**5,00 WATERPROOFING**

**Page**

**1 to 5 R**  
**6 to 8 R**  
**9 to 12 R**  
**13 to 15 R**  
**15 to 17 R**

**Carried to Collection**

**R**

Section No. 2  
SECTION SUMMARY



**SECTION NO. 03: SUPER STRUCTURE**

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No.	Description	Unit	Quantity	Rate	Amount
	<p><b><u>SECTION NO. 3</u></b>  <b><u>SUPER STRUCTURE</u></b>  <b><u>BILL NO. 1</u></b>  <b><u>CONCRETE, FORMWORK AND REINFORCEMENT</u></b></p> <p><b><u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u></b></p> <p><b><u>PREAMBLES</u></b>  The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b>  Proprietary products in descriptions  Proprietary products shall be used as specified.  Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent  Descriptions of concrete items shall be deemed to include for all necessary testing of concrete components and trail mixes</p> <p><b><u>Working at Heights:</u></b>  Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.</p> <p><b><u>Cost of tests</u></b>  The costs of making, storing and testing of concrete test cubes as required shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect.  The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the Principal Agent. (Test cubes are measured separately)</p> <p>Descriptions of concrete items shall be deemed to include for all necessary testing of concrete components and trail mixes</p> <p style="text-align: right;"><b>Carried Forward</b></p>				
					R



Section No. 2

Bill No. 1

Concrete, Formwork and Reinforcement



-  
Rates for concrete shall be deemed to include for all necessary transportation, hoisting, etc. to render a perfect, sound and stable installation all to the satisfaction of the Structural Engineer.

Bidders are to note that delay claims related to the supply of concrete decking, reinforcement etc. will not be entertained and are thus urged to take cognisance of quantities required and secure supply accordingly.

**Formwork**

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

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

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

Formwork to soffits of slabs, beams, etc. shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described  
Formwork to sides of bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in Earthworks

All formwork to remain in position and only removed on approval of the Engineer.

**REINFORCED CONCRETE CAST ON/IN FORMWORK**  
**25MPa/19mm concrete**

1,00	Stairs including landings, beams and inverted beams	m <sup>3</sup>	155
2,00	Slabs including beams and inverted beams	m <sup>3</sup>	860

**Carried to Forward**

Section No. 2  
Bill No. 1  
Concrete. Formwork and Reinforcement

R


<b>Brought Forward</b>			R
3,00	<b><u>CONCRETE TESTING</u></b> Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	105
<b><u>CONCRETE SUNDRIES</u></b>			
4,00	<b><u>Finishing top surfaces of concrete smooth with a power float</u></b> Surface beds, slabs, etc.	m <sup>2</sup>	320
<b><u>SMOOTH FORMWORK</u></b>			
<b><u>(CPAP WORK GROUP NO. 111)</u></b>			
<b><u>Formwork to sides</u></b>			
5,00	Formwork to sides and soffits of concrete slabs and beams propped up exceeding 1.5m and not exceeding 3.5m high above bearing level (Labour Intensive)	m <sup>2</sup>	5150
6,00	Edges, risers, ends and reveals not exceeding 300mm high or wide. (Labour Intensive)	m	750
7,00	Sloping and outer edges of stairs not exceeding 300mm high (Labour Intensive)	m	650
<b><u>Smooth formwork to soffits</u></b>			
8,00	Slabs not exceeding 250mm thick propped up exceeding 1.5m and not exceeding 3.5m high (Labour Intensive)	m <sup>2</sup>	6510
9,00	Landings	m <sup>2</sup>	250
10,00	Stairs with sloping soffits (Labour Intensive)	m <sup>2</sup>	255
<b><u>MOVEMENT JOINTS ETC</u></b>			
<b><u>Two layers of three ply malthoid in slip joints between horizontal concrete and brick surfaces including cement mortar bed</u></b>			
11,00	Not exceeding 300mm wide. (Labour Intensive)	m	210
<b><u>Honel Ref no. 8N50 or other approved teflon slide bearing in slip joints between horizontal concrete</u></b>			
12,00	Not exceeding 150mm wide. (Labour Intensive)	m	175
<b><u>Expansion joints with 10mm bitumen impregnated softboard between vertical concrete and brick surfaces</u></b>			
13,00	10mm Joints not exceeding 300mm high (Provisional) (Labour Intensive)	m	110
<b>Carried Forward</b>			R

Brought Forward

R

**Expansion joints with 10mm thick polystyrene backing joint filler between vertical concrete surfaces, including necessary formwork**

14,00 10mm Joints not exceeding 300mm high through slabs. (Labour Intensive) m 55

**Saw-cut joints**

15,00 3 x 45mm Saw-cut joints on top of concrete, reamed out to 8mm. (Labour Intensive) m 105

16,00 3 x 25mm Saw-cut joints on top of concrete. (Labour Intensive) m 55

**REINFORCEMENT (PROVISIONAL) (CPAP WORK GROUP NO. 114)**

**Mild and High tensile steel reinforcement to structural concrete work**

17,00 Bars of various diameters to concrete structures t 50

Carried to Collection Summary

R

Section No. 2  
Bill No. 1  
Concrete. Formwork and Reinforcement

**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 2**  
**MASONRY**

**(CPAP WORK GROUP NO. 118 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

Working at Heights:

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/alterd. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Proprietary products in descriptions**

Proprietary products shall be used as specified.

Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**BRICKWORK**

**Sizes in descriptions**

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

**Cement mortar**

Unless otherwise described, all brickwork shall be built in 1:5 cement mortar

Bagged and sealed walls

Walls described as 'bagged and sealed' shall be deemed to include having the outer face of the innermost skin bagged with 1:6 cement and sand mixture and sealed with two coats "ABE" or other approved bitumen emulsion waterproofing coating

**Face bricks**

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

**Carried Forward**

Section No. 2  
Bill No. 2  
Masonry

R


	<b><u>Pointing</u></b>			
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.			
	<b><u>BRICKWORK</u></b>			
	<b><u>SUPERSTRUCTURE</u></b>			
	<b><u>Brickwork of NFP bricks in class II mortar:</u></b>			
1,00	Half brick walls (Labour Intensive)	m <sup>2</sup>	2500	
2,00	Half brick walls in beamfilling (Labour Intensive)	m <sup>2</sup>	1500	
3,00	One brick walls (Labour Intensive)	m <sup>2</sup>	850	
4,00	One brick walls in fire walls (Labour Intensive)	m <sup>2</sup>	164	
	<b><u>BRICKWORK SUNDRIES</u></b>			
5,00	Joint forming material in movement joints 12mm Bitumen impregnated fibre board built in vertically between brick skins (Labour Intensive)	m <sup>2</sup>	500	
	<b><u>Reinforcement to brickwork</u></b>			
6,00	75mm wide reinforcement built in horizontally (Labour Intensive)	m	1200	
7,00	150mm wide reinforcement built in horizontally (Labour Intensive)	m	110	
	<b><u>Prestressed fabricated lintels</u></b>			
8,00	110 x 75mm Lintels in lengths not exceeding 3m (Labour Intensive)	m	350	
	<b><u>Turning pieces</u></b>			
9,00	110mm Wide turning piece to lintels, etc (Labour Intensive)	m	50	
10,00	230mm Wide turning piece to lintels, etc (Labour Intensive)	m	350	
	<b><u>Galvanised hoop iron cramps, ties, etc.</u></b>			
11,00	2mm Hoop iron cramp 40mm wide and 900mm girth, one end turned up, twice holed and screwed to wood frame and other end built into brickwork (Labour Intensive)	No	50	
12,00	30 x 1,6mm Galvanised crimp wire wall ties 500mm long built into brickwork (Labour Intensive)	No	60	



**Carried Forward**

Section No. 2  
Bill No. 2  
Masonry

R


**Brought Forward**

R

13,00	32 x 1,6mm Roof tie 1500mm long with one end fixed to timber and other end built into brickwork (Labour Intensive)	No	250
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**WINDOW SILLS**

**Brick-on-edge header course copings, cills, etc. of**

**FBA facebrick or other approved face bricks**

14,00	115mm wide cills set sloping and slightly projecting (Labour Intensive)	m	250
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**FIBRE-CEMENT WINDOW SILLS**

**Fibre-cement Sills**

15,00	Fibre-cement sill as "Everite Nutec" or other approved, (Product Code: 031-509) built into 230mm wall, with and including fixing lugs and self-tapping screws (Labour Intensive)	m	350
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**Carried to Collection Summary**

R

| |Masonry

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**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 3**  
**WATERPROOFING**

**(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

Proprietary products in descriptions

Proprietary products shall be used as specified.

Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Waterproofing**

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

**Proprietary branded products:**

Proprietary branded products are to be applied in strict accordance with the manufacturers instructions. Should the manufacturers instructions be found not to have been followed in any process relating to the product in relation to, but not limited to transportation, application (rates and methodology), treatment of existing surfaces etc., then all liability for such product shall be transferred to the appointed Main Contractor.

Carried to Collection

Section No. 2  
Bill No. 3  
Waterproofing

R



	<b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b>			
	<b><u>One layer 375 micron embossed polyethylene dampproof course (SANS 952-1985 type B)</u></b>			
1,00	In walls (Labour Intensive)	m <sup>2</sup>	450	
2,00	Under cills (Labour Intensive)	m <sup>2</sup>	650	
	<b><u>JOINT SEALANTS, ETC</u></b>			
	<b><u>Two-part grey polysulphide sealing compound including backing cord, bond breaker, primer, etc.</u></b>			
3,00	10 x 10mm In expansion joints in floors or walls including raking out expansion joint filler as necessary (Provisional) (Labour Intensive)	m	2500	
	<b><u>Pressfit Seal compound including backing cord, bond breaker, primer, etc.</u></b>			
4,00	41 x 41mm Pressfit seal in expansion joints in floors or walls including raking out expansion joint filler as necessary (Provisional) (Labour Intensive)	m	150	
	<b><u>Clear silicone sealant</u></b>			
5,00	In waterproofing joints between fittings and walls (Labour Intensive)	m	250	
6,00	In joint sealing and pointing between external aluminium window frames and brickwork surround (Provisional) (Labour Intensive)	m	450	
	<b><u>WATERPROOFING TO FLOORS, WALLS, ETC</u></b>			
	<b><u>Apply two coats "Saint Gobain Weber Waterproof-It Patio" or other approved 3 part under tile waterproofing system comprising of Waterproof-It Compound, Waterproof-It Emulsion and Polyweave Membrane with minimum 100mm laps where necessary, all installed in</u></b>			
7,00	On walls. (Labour Intensive)	m <sup>2</sup>	1500	
8,00	On floors. (Labour Intensive)	m <sup>2</sup>	200	

Section No. 2  
Bill No. 3  
Waterproofing

**Carried to Collection Summary**

R


**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 4**  
**ROOF COVERING**

**(CPAP WORK GROUP NO. 124 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Fixing**

Fixing shall be done according to SABS 1200HB with minimum 225mm end laps

**Guarantee**

The contractor will be required to provide a written guarantee, stating that : 1. The roof tiles are of the specified thickness and specifications 2. The client is indemnified against any defects, including colour deterioration for a minimum period of 15 years

**0,6mm I.B.R. single spelter Z275 galvanised troughed sheet steel with embossed 25 micron Colomet (C1S) to approved colours in single lengths fixed to timber or steel purlins (elsewhere measured) and accessories:**

1,00	Roof covering with pitches not exceeding 25 degrees	m2	3500
2,00	Circular cutting to roof sheeting.	m	550
3,00	Drip flashing 150mm girth.	m	610
4,00	Cover flashing 150mm girth.	m	450
5,00	Side wall flashing 460mm girth.	m	530
6,00	Ridge capping 600mm girth.	m	460



7,00

Corner trim 460mm girth.

m

100

**Carried Forward**

R



Brought Forward

R

Section No. 2

Bill No. 4

Roof covering

ROOF INSULATION

Type 'E' SABS 952/1985 white underlay over trusses  
and under battens

8,00

50mm White plastic insulation laid horizontal over  
engineered trusses and secured with screws through  
battens (Labour Intensive)

m2

1500

**Carried to Collection Summary**

Section No. 2  
Bill No. 4  
Roof covering

R	

**SECTION NO. 03**  
**SUPER STRUCTURE**  
**BILL NO. 5**

**CARPENTRY AND JOINERY**  
**(CPAP WORK GROUP NO. 126 UNLESS OTHERWISE**  
**STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

Proprietary products in descriptions  
Proprietary products shall be used as specified.  
Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Roof trusses**

The truss system shall be designed by an Engineer and the Contractor shall complete and submit a certificate of confirmation. This certificate will state that the trusses have been designed, manufactured and erected in accordance with the relevant SABS code. The details of the registered engineer certifying this will appear on the certificate

**Joinery**

Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc  
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes

**Fixing**

All nailing of timber roof trusses, purlins, etc shall be done with galvanised nails. In coastal areas, copper, aluminium or stainless steel nails shall be used

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**Carried to Forward** | |

R

**Brought Forward**

R

**Section No. 2**

**Bill No. 5**

**Carpentry and Joinery**

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

Where items are described as 'bolted' the bolts have been measured elsewhere

**Prices**

Rates for joinery shall include painting all exposed faces as per the relevant drawings.

**Doors**

Tenderers are to note that the descriptions include reference drawings which form part of the tender documentation, notwithstanding anything contained in the description, tenderers are to price these items in accordance with the drawings. Further, the onus is on the tenderer to ensure that all relevant drawings referenced in the Bills of Quantities are included in the tender document. No further time or monetary claims resulting from any of the above will be entertained.

**ROOFS ETC**

**Sawn softwood**

1,00	38 x 114 mm Wall plates 1 (Labour Intensive) m 519	m	150
2,00	38 x 114mm timber fixed to ends of timber trusses (Labour Intensive)	m	110
3,00	50 x 76mm timber fixed between timber battens (Labour Intensive)	m	55
4,00	Install 38 x 114mm Timber cross bracings fixed to timber roof trusses at rafter, using galvanised mild steel bolts, washers, etc. including sanding down and sealing entire trusses to leave in a perfect condition, including reinstating in position as approved by the engineer. (Labour Intensive)	m	210
	<b><u>Sawn softwood grade 4</u></b>		
5,00	38 x 38mm Battens at 400mm centers (Labour Intensive)	m	320

Carried to Forward

R

Brought Forward

R

**Section No. 2**

**Bill No. 5**

**Carpentry and Joinery**

**PLATE NAILED TIMBER ROOF TRUSS  
CONSTRUCTION ETC**

The following trusses shall be 'Gangnail' or similar approved engineering designed roof trusses manufactured from sawn softwood and suitable for concrete tile roof covering and gypsum plasterboard ceilings on 38 x 50mm softwood brandering

(NOTE :The contractor will be required to provide a certificate of approval signed by a registered engineer certifying that the trusses have been designed, manufactured and installed in accordance with the relevant SABS specifications)

**The following in gangnailed timber trusses with pitch not exceeding 25 degrees from an approved supplier, delivered to site, hoisted into position, fixed and braced on timber wall plates in accordance with the relevant part of SANS 10400:**

6,00

Design, supply and install double pitched roof truss system complete and in accordance with SANS, etc. all in accordance with the relevant specifications to building size approximately 16 820mm x 7 730mm on plan and with a clear span between walls approximately 6090mm (approximate on flat 130m2)

No

1

**DOORS, ETC**

**Wrought meranti 2 Panel HB hardwood doors hung to steel frames**

7,00

40mm Thick single door size overall 900 x 2100mm high (D- 01 Entrance doors) (Labour Intensive)

No

96

Carried Forward

R



**Brought Forward**

8,00

40mm Thick single door size overall 900 x 2100mm high  
(D- 02 Internal doors) (Labour Intensive)

No

256

R

**Carried to Collection Summary**

Section No. 2  
Bill No. 5  
Carpentry and Joinery

R

**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 6**

**CEILING PARTITION AND ACCESS FLOORING**  
**(CPAP WORK GROUP NO. 129 UNLESS OTHERWISE**  
**STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Working at heights**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Fixing**

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

**Descriptions**

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

**Ceilings**

Unless otherwise described ceilings shall be deemed to be horizontal

**Carried Forward**

Section No. 3  
Bill No. 6  
Ceilings and Partition and Acces Flooring

R


**Section No. 3**

**Bill No. 6**

**Ceilings and Partition and Acces Flooring**

**Bulkheads**

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

**Steel components**

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

**INSULATION, ETC**

**Isover Energylite or other approved insulation layer approximately 100mm thick comprised of 50mm thick insulation board and 50mm thick insulation blanket**

1,00	100mm Insulation lapped not less than 150mm along all edges and laid on top of brandering between roof timbers etc. (Labour Intensive)	m <sup>2</sup>	1500
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**NAILED-UP CEILINGS**

**6mm Fibre-cement plain ceiling boards with and including 25 x 10mm Meranti convex cover strips**

2,00	Ceilings including 38 x 50 mm SA Pine brandering at 400mm centres in both directions.(Labour Intensive)	m <sup>2</sup>	950
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3,00	Extra over ceiling for opening for 650 x 650mm trap door complete with trimmers, frame, cross branders, ceiling board, hinges, etc as described (Provisional) (Labour Intensive)	No	50
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**Expanded polystyrene moulded cornice**

4,00	Overall size 77 x 79 x 112mm fixed to wall and ceiling with and including an approved adhesive, all in accordance with manufacturer's instructions (Labour Intensive)	m	340
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Carried to Collection Summary

R

Section No. 3

Bill No. 6

Ceilings and Partition and Acces Flooring



**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 7**

**IRONMONGERY**  
**(CPAP WORK GROUP NO. 132 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Budgetary Allowances**

Work for which budgetary allowances are provided will be measured and valued in accordance with clause 32 of the Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss or profit on the said allowance

**Finishes to ironmongery**

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list BS Satin bronze lacquered CP 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

**Fixing**

Descriptions of wall mounted and floor standing ironmongery items shall be deemed to include for fixing in position and all fixing accessories Descriptions of proprietary items shall be deemed to include fixing in position and all fixing accessories as specified by the manufacturer

**HINGES, BOLTS, ETC.**

1,00

100mm Brass hinge (Labour Intensive)

No

96

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**Carried to Forward** |

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**Brought Forward**

R

**Section No. 3****Bill No. 7****Ironmogery****CATCHES, CABIN HOOKS, ETC****'LG' or other approved**

2,00	100mm Chrome cabin hook screwed to wall and door (Labour Intensive)	No	96
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**LOCKS****'Assa Abloy' or other approved**

3,00	Natal Euro Profile with chrome handle finish including galvanised euro profile cylinder lock and 2x28 euro profile cylinder with stainless steel backplate (Labour Intensive)	No	96
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4,00	3 lever lockset with chrome handle finish including galvanised stainless steel backplate (Labour Intensive)	No	96
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**HANDLES****'Assa Abloy' or other approved**

5,00	Euro profile chrome plated cylinder handle (code: CZ668-05-315) with stainless steel backplate (Labour Intensive)	No	96
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6,00	Euro profile chrome plated cylinder handle (code: CZ668-24-312) with stainless steel backplate (Labour Intensive)	No	96
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**LETTERS, NAMEPLATES, ETC****'Euro' brass or other approved**

7,00	175mm High brass numeral 7 (Labour Intensive) No 192	No	96
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**SUNDRIES****'Dejay Door Stopper' or other approved**

8,00	38mm Diameter rubber door stop plugged and screwed to floor with 50mm long brass screw (Labour Intensive)	No	96
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**Brought Forward**

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**BATHROOM FITTINGS**

**'Solo' or other approved**

9,00 Solo TR2 surface mounted toilet roll holder plugged, all as per manufacturer's instructions. (Labour Intensive) No 96

10,00 'Franke " or other approved 32mm Chromium plated stainless steel side grab rail, plugged (Labour Intensive) No 96

11,00 32mm Chromium plated stainless steel back grab rail 600mm long, plugged (Labour Intensive) No 96

**BUDGETARY ALLOWANCES**

**Statutory Signs**

12,00 Allow the sum of R 80 000.00 (Eighty Thousand Rand) for the supply and installation of statutory 'ABS" or other approved plastic signs, plugged and screwed to walls Item 1

**Carried to Collection Summary**

R

Section No. 3  
Bill No. 7  
Ironmogery



**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 8**  
**METALWORK**

**(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

Working at Heights:

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Descriptions of bolts, anchors, etc.**

Descriptions of bolts shall be deemed to include nuts and washers

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete  
Items described as 'holed for bolt(s)' shall be deemed to exclude the bolts unless otherwise described

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

**Rates shall include for the following:**

Suitably protecting all exposed aluminium and glass surfaces with an approved protection tape and plastic sheeting. Such protection is to be removed at completion of the contract and the exposed surfaces cleaned down and left perfect. Under no circumstances will any damage whatsoever to the finished product be accepted.  
Building in and fixing into preformed openings. Window opening sizes to be verified on site before windows can be manufactured.

Complete ironmongery to all aluminium doors and windows

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Carried Forward |

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Section No. 3

Bill No. 8

Metalwork

Complete glazing as described with and including matching aluminium glazing beads and gaskets and glazed in accordance with the manufacturer's written instructions.

All opening and fixed lights, coupling mullions and transoms, fittings, ironmongery, etc. As required.

**Powdercoated aluminium windows, doors, etc.:**

Bidders are to note that prices for aluminium doors and windows are to include for all necessary ironmongery for the complete installation as required. No further claims in this regard will be entertained.

Bidders are advised to refer to the architects window and door schedules, as these will take precedence and rates will be deemed to be based in the schedules should there be any discrepancy

Items shall be manufactured by an approved specialist who shall provide a sample upon request, for approval by the Principal Agent, at no additional cost to the contract.

All powdercoating shall be to SANS 1796:2013 (Class 2) – “Interpon D2525 T” or other approved, colour Matt Bronze 543 (Code QX201P), and shall be supplied with a 25 year project warrantee.

Screws and bolts shall be of corresponding metal and colour and heads of screws shall be countersunk. Selftapping screws shall, unless otherwise described, be used for screwing items to adjoining metalwork.

Stainless steel screws shall be used for fixing aluminium. Items fixed to adjoining metalwork with rivets, selftapping screws, set screws, machine screws, etc. shall include for all necessary drilling.

**Anodising:**

All anodising shall be executed in strict accordance with SANS 999. Grade AA25 (Average coating thickness 25 micron) shall be used. Colour to be agreed with Architect.

**Welded joints and intersections:**

Prices of balustrades, burglar guards and the like shall include for framed and welded joints and intersections.

Prices of continuous hollow section and solid section shall include for welded joints in the length and prices of intersections shall include for all cutting, mitering, scribing, shaping, welding, bends, knees, ramps, etc.

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Carried Forward

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**Section No. 3****Bill No. 8****Metalwork****Hot dipped galvanising:**

The mass of hot dip galvanised steelwork has been calculated on the mass before galvanising and no allowance has been made for the additional mass of galvanising for which allowance must be made in pricing. Unless otherwise stated, all steelwork described as galvanised shall be deemed to include for 'hot-dip' galvanising in accordance with the latest SANS standards.

**Screws and bolts:**

Screws and bolts shall be of corresponding metal and colour and heads of screws shall be countersunk. Selftapping screws shall, unless otherwise described, be used for screwing items to adjoining metalwork. Stainless steel screws shall be used for fixing aluminium. Items fixed to adjoining metalwork with rivets, selftapping screws, set screws, machine screws, etc. shall include for all necessary drilling.

Where bolting is specified, projecting shank ends of bolts shall be cut flush and left smooth.

**Drawings:**

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

**ALUMINIUM WINDOWS, DOORS, ETC.****ALUMINIUM WINDOWS****Note**

**Refer to attached window schedules for details of windows Anodise aluminium windows complete with subframes, ironmongery, 4mm clear float glass, sealing, etc and fixing to brickwork.**

1,00	WD - 001- Double Window 21 (1200mm x 1200mm)	No	98
2,00	WD - 001- Vertical Multi-Sash Window 21(620mm x1000mm)	No	96
3,00	WD - 002- Double Window 21 (1200mm x 1000mm)	No	96
4,00	WD - 002- Double Window 21 (1200mm x 1200mm)	No	96
5,00	WD - 002-Triple Window 21 (2000mm x 1200mm)	No	42
6,00	WD-002-Vertical Multi-Sash Window 21(840mm x 1000mm)	No	15
7,00	WD -002-Vertical Multi-Sash Window 21(620mm x1000mm)	No	10



8,00	WD - 003- Double Window 21 (1200mm x 1200mm)	No	12
9,00	WD - 005- Window 21 (1200mm x 600mm)	No	5
<b>Carried Forward</b>			

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Brought Forward

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**Section No. 3**

**Bill No. 8**

**Metalwork**

**HOT DIPPED GALVANISED PRESSED STEEL DOOR  
FRAMES**

**1.2mm Double rebated frames suitable for one brick  
walls with two 100mm galvanised and welded loose  
pin hinges per door leaf**

10,00	Frame for door 813 x 2032mm high 4 (Labour Intensive) No 96	No	75
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**1.2mm Double rebated frames suitable for half brick  
walls with two 100mm galvanised and welded loose  
pin hinges per door leaf**

11,00	Frame for door 813 x 2032mm high (Labour Intensive) No 288	No	285
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Section No. 3  
Bill No. 8  
Metalwork

**Carried to Collection Summary**

R

**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 9**

**PLASTERING**  
**(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Mix**

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

**Panels**

Where possible joints between panels shall be positioned over joints in the floor slab and shall be at least 3mm wide through the full thickness of the finish, separated by strips of wood or fibreboard and finished with V-joints

**Laying**

Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels

**Colour**

Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.

**Carried Forward**

R

**Section No. 3**

**Bill No. 9**

**Plastering**

Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels. After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated.

**Curing, seasoning and protection**

Granolithic shall be covered with clean hessian with waterproof building foil over and kept wet for at least seven days after laying.

**Colour**

Coloured granolithic shall be tinted with an approved colouring pigment mixed into a true and even colour.

**Preparation**

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

**SCREEDS**

**3:1 Cement plaster screeds steel floated for selflevelling floor covering on concrete**

1,00	25mm Thick on floors, landings etc. (Labour Intensive)	m <sup>2</sup>	1500
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2,00	25mm Thick on treads and risers of stairs including ribbing to treads. (Labour Intensive)	m <sup>2</sup>	500
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**SELF-LEVELING EPOXY**

**Self-leveling epoxy on cement plaster screeded floors**

3,00	2mm Thick on floors (Labour Intensive)	m <sup>2</sup>	40
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4,00

2mm Thick on narrow widths. (Labour Intensive)

m<sup>2</sup>

455

**Carried Forward**

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Brought Forward

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**Section No. 3**

**Bill No. 9**

**Plastering**

**INTERNAL PLASTER**

**Cement plaster on brickwork**

5,00 On walls (Labour Intensive) m<sup>2</sup> 2500

6,00 On narrow widths (Labour Intensive) m<sup>2</sup> 1500

**Cement plaster on concrete**

7,00 On Ceilings (Labour Intensive) m<sup>2</sup> 500

**EXTERNAL PLASTER**

**Cement plaster on brickwork**

8,00 On walls (Labour Intensive) m<sup>2</sup> 2500

9,00 On sloping top of sills 150mm wide (Labour Intensive) m<sup>2</sup> 1500

10,00 On narrow widths (Labour Intensive) m<sup>2</sup> 500

Carried to Collection Summary

R

Section No. 3

Bill No. 9

Plastering



**SECTION NO. 3**

**SUPER STRUCTURE**

**BILL NO. 10**

**TILING**

**(CPAP WORK GROUP NO. 144 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

Proprietary products in descriptions

Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

Working at Heights:

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/alterd. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Fixing**

Tiling shall be fixed with an approved tile adhesive to a plaster backing. Plaster backing is measured elsewhere

Unless described as 'fixed with adhesive to plaster (plaster elsewhere)' or 'fixed with adhesive to screed (screed 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 cement screed.

Tiling described as 'fixed with adhesive on power floated concrete' shall be deemed to include for approved tiling key-coat

Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts as recommended by the manufacturer of the tiles

**WALL TILING**

**200 x 200 x 6mm Shiny white glazed ceramic tiles on plastered walls and pointed with white cement grout including waterproofing undercoat**

1,00

On splashback 1 (Labour Intensive)

m<sup>2</sup>

0

**Carried Forward**

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Brought Forward

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**Section No. 3**

**Bill No. 10**

**Tiling**

**Johnson tiles gloss white glazed pressed ceramic tiles 200 x 200 x 6mm with Tal Proflex waterproof adhesive on wall plaster (plaster measured elsewhere) made with waterproof admixture, joint tiles with Tal Super White grout with water content replaced with Tal bond including forming 6mm wide movement joints in tiling through full depth of bedding coat over movement joints in the background, at ceiling level, vertically and horizontally at approximately 4,5m centres where tiling is continuous over different backgrounds. Movement joint sealer to be (polyurathane) Sikaflex.**

2,00	On Walls	m <sup>2</sup>	75
3,00	On narrow widths	m <sup>2</sup>	35

**FLOOR TILING**

**TILE AFRICA (PL-713) 330 x 330 x 7,2mm thick tiles fixed with Tal Proflex waterproof adhesive to screeded floors (screed measured elsewhere), grouted with Tal high traffic grout in colour 'dove grey', including forming movement joints in tiling and through full depth of bedding coat over background movement joints and not exceeding 5m apart of reinforced concrete slabs and surface beds and at junction with wall and floor and where tiling is continuous over different backgrounds. All movement joints to be sealed with Sikaflex 35SL.**

4,00	On screeded floors	m <sup>2</sup>	0
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**48 x 48mm Dove grey mesh backed ceramic mosaics floor tiles (PC amount of R350/m<sup>2</sup>), 300 x 300mm sheet on 12mm bedding on concrete and laid with diagonal joints continuous in both directions with tinted waterproof grout**

5,00	On shower floors (Labour Intensive)	m <sup>2</sup>	0
6,00	Circular cutting (Labour Intensive)	m	15

**SUNDRIES**

**Aluminium edge trim**

7,00	10mm Flat section edge trim at the end of tiles (Labour Intensive)	m	0
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Section No. 3  
Bill No.10  
Tiling

**Carried to Collection Summary**

R

**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 11**

**PLUMBING AND DRAINAGE**  
**(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE**  
**STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

**Proprietary products in descriptions**

Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Budgetary Allowances**

Work for which budgetary allowances are provided will be measured and valued in accordance with clause 32 of the Principal Building Agreement and deducted in whole or in part if not required without any compensation for loss or profit on the said allowance

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/alterd. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**Fixing**

Descriptions of wall mounted, floor standing, drop-in, etc type sanitary fittings shall be deemed to include fixing in position and all fixing accessories Descriptions of proprietary items shall include fixing in position and all fixing accessories as specified by the manufacturer

**Chasing**

Chasing pipes into new walls shall be regarded as 'building in' and is not measured separately. The cost of chasing and making good shall be included in the rates for pipes

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**Carried Forward** |

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**Section No. 3**

**Bill No. 11**

**Plumbing and Drainage**

**Stainless steel sanitary fittings**

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

**Waste unions**

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

**Wire gratings**

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

**Sealing of edges**

Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone- Class F20 HM, to EN ISO 11600.

**uPVC pipes and fittings**

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

**Polycop polypropylene pipes**

Polypropylene pipes 54mm diameter and smaller shall be seamless copper coloured Class 16 pipes jointed with Fast-fuse heat welded thermoplastic or where so described Polylock compression fittings Pipes shall be firmly fixed to walls, etc. with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.

**Copper pipes**

Pipes shall be hard drawn and half-hard Maksal pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and antisiphon pipes, capillary solder fittings and compression fittings shall be Cobra Watertech type, or other approved. Capillary solder fittings shall comply with ISO 2016.

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**Section No. 3**

**Bill No. 11**

**Plumbing and Drainage**

**Reducing fittings**

Where fittings have reducing ends or branches they are described as 'reducing' and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained.

**Fixing of pipes**

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc., casting in, building in or suspending not exceeding 1m below suspension level.

**Disinfection of water pipework**

Water pipework is to be disinfected at completion in accordance with SANS (provision for disinfection elsewhere).

Paper wrapping to pipes

Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings.

**General**

Rates for installation of sanware and all drainage and supply piping of all types will be deemed to include for fair cutting around pipes and making good to floor and wall finishes.

**Prices**

Prices of all pipes shall include for short lengths and cutings, for all joints in length, including necessary couplings and for all jointing to fittings.

Prices of all joints between pipes of dissimilar size and between taps, valves, etc. And shall in all cases be for the couplings or adaptors. Prices of flanged and bolted joints between pipes of dissimilar size and between valves, etc. Shall include for flanges drilled as required, flange adaptors, rubber insertion rings and necessary bolts and nuts.

Prices for all pipes in ground shall include for laying in ground, including digging trenches in earth, provision for risk of collapse to side of excavations, except where specifically measured in detail, keeping excavations free from water, bedding as described and for filling in and ramming in 150mm thick layers of G2 fill to 98% Modified AASHTO. Price of concrete encasement around pipes, bends, etc. And concrete anchor blocks,

shall include for all additional excavation and formwork required.

Carried to Collection

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**Section No. 3**

**Bill No. 11**

**Plumbing and Drainage**

**As-built drawings**

The Contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings elsewhere).

**RAINWATER DISPOSAL**

**(CPAP WORK GROUP NO. 146)**

**Seamless aluminium Ogee prepainted gutters and rainwater pipes, with baked enamel finish**

1,00	150mm x 150mm x 0.6mm Square profile aluminium seamless roof gutters fixed to falls with brackets screwed to eaves, purlins/false timber through fibre cement fascia with galvanised screws/or bolted to fibre cement fascia or steel supporting structure with galvanised bolts/nuts and washers at 500mm centres	m	96
2,00	Extra over eaves gutter for stopped end (Labour Intensive)	No	96
3,00	Extra over eaves gutter for outlet for 75mm diameter pipe (Labour Intensive)	No	100
4,00	100 x 75 x 0.6mm thick rectangular fluted rainwater downpipes in continuous lengths, including prepainted aluminium straps fixed to walls with nail plugs and/or fixed to steel supports with self tapping screws (Labour	m	100
5,00	Extra over rainwater pipe for eaves offset 750mm projection (Labour Intensive)	No	96
6,00	Extra over rainwater pipe for shoe 6 (Labour Intensive)	No	96

**SANITARY FITTINGS**

**Franke or other approved**

7,00	Franke Quinline stainless steel satin finish single bowl (Code: QLX621-120) drop-in sink size approximately 1200mm x 500mm. Silicone seal between sink and counter tops. Including Spazi F/2 or other approved plumbing kit.	No	96
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**Vaal or other approved**

8,00	Springbok WHB (Code: VAA-703102WH), size 400 x 550 x 270mm with intergrated overflow, chainstay hole and two tap hole configuration fixed to wall with and including semi concealed basin bracket (Code:		
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VAA-8118Z000), 2 x 10mm bolts, etc. (Labour Intensive)

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**Carried Forward**

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**Brought Forward**

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**Section No. 3****Bill No. 11****Plumbing and Drainage**

Afsan low level 90° degree outlet flush toilet (Code:VAA-750600WH) with and including 460 x360 x390mm DPE B2 seat and close couple cistern, installed complete. (Labour Intensive)

9,00

No

96

**WASTE UNIONS ETC****Cobra or other approved**

10,00 32mm Chrome basin waste (code: COB-P-303) (Labour Intensive)

No

0

11,00 40mm 301 CP waste union (Labour Intensive)

No

0

**TRAPS ETC**

12,00 40mm Anti-vac trap (Labour Intensive)

No

0

13,00 P trap (Labour Intensive)

No

0

**Cobra or other approved**

14,00 32 x 40mm Chrome bottle trap (code COB-0617CH) (Labour Intensive)

No

0

15,00 Brass shower trap with chromium plated waste and grating. (code: COB373SQ) (Labour Intensive)

No

0

**TAPS, VALVES, ETC****Cobra or other approved**

16,00 Chrome star sink mixer (code: COB-296) (Labour Intensive)

No

0

17,00 Brushed chrome metering pillar tap (code: COBKM2-101) with and including all fixings (Labour Intensive)

No

96

18,00 Chrome plated star underwall stop taps (code: COB-238-15) (Labour Intensive)

No

96

19,00 Chrome angle valve & connectors, (code: COB-832-10) (Labour Intensive)

No

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**Brought Forward****R****Section No. 3****Bill No. 11****Plumbing and Drainage****SANITARY PLUMBING****(CPAP WORK GROUP NO. 146 )****uPVC pipes**

23,00	40mm Pipes (Labour Intensive)	m	150
24,00	50mm Pipes (Labour Intensive)	m	150
25,00	110mm Pipes (Labour Intensive)	m	320
26,00	50mm Pipes chased in concrete (Labour Intensive)	m	210
27,00	110mm Pipes chased in concrete (Labour Intensive)	m	160
28,00	40mm Pipes laid in and including trenches not exceeding 1m deep under surface beds (Labour	m	400
29,00	50mm Pipes laid in and including trenches not exceeding 1m deep under surface beds (Labour	m	350
30,00	110mm Pipes laid in and including trenches not exceeding 1m deep under surface beds (Labour	m	780
	<b><u>Extra over uPVC soil and vent pipes for fittings</u></b>		
31,00	40mm Adaptor (Labour Intensive)	No	96
32,00	50mm Adaptor (Labour Intensive)	No	96
33,00	40mm Bend (Labour Intensive)	No	96
34,00	50mm Bend (Labour Intensive)	No	96
35,00	110mm Bend (Labour Intensive)	No	96
36,00	110mm Pan connector (Labour Intensive)	No	96
37,00	110mm Access bend (Labour Intensive)	No	96
38,00	50mm Junction (Labour Intensive)	No	96
39,00	110mm Junction (Labour Intensive)	No	96
40,00	110 x 50mm Reducer (Labour Intensive)	No	96
41,00	110mm 'GI two-way' vent valve (Labour Intensive)	No	96

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**Brought Forward**

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**Section No. 3****Bill No. 11****Plumbing and Drainage****Sundries**

42,00	Wire balloon grating in top of pipe not exceeding 110mm Dia	No	50
43,00	Testing waste pipe system Item	Item	5

**WATER SUPPLIES****Class O copper pipes**

44,00	15mm pipes (Labour Intensive)	m	280
45,00	15mm pipes chased in brickwork (Labour Intensive)	m	280
46,00	22mm pipes chased in brickwork (Labour Intensive)	m	280
47,00	22mm Pipes laid in and including trenches not exceeding 1m deep under surface beds (Labour	m	280

**Extra over Class 0 copper pipes for capillary fittings**

48,00	15mm Fittings 48 (Labour Intensive)	No	0
49,00	22mm Fittings (Labour Intensive)	No	0

**Extra over class O copper pipes for conex compression fittings**

50,00	15mm Fittings (Labour Intensive)	No	0
51,00	22mm Fittings (Labour Intensive)	No	0

**Copper overflow and service pipes**

52,00	15mm Service pipes 350 mm girth (Labour Intensive)	No	0
53,00	22mm Service pipes 350mm girth (Labour Intensive)	No	0

**Testing**

54,00	Testing water pipe system	Item	5
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**Brought Forward**

**ELECTRIC WATER HEATERS**

**Geyser mounted horizontally on roof timbers**

55,00	150 Litre geyser (Labour Intensive)	No	48
56,00	0.6mm Galvanised sheet iron tray size 1350 x 750mm with rivetted and soldered seams and joints turned up all round to form kerb 75mm high with beaded edge, including outlet with nozzle for 50mm diameter overflow pipe and fix in position (Labour Intensive)	No	48
57,00	40 mm HDPE black polythene overflow pipe fixed to timber roof trusses. (Labour Intensive)	m	185

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**Carried to Collection Summary**

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**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 12**  
**GLAZING**

**(CPAP WORK GROUP NO. 150 UNLESS OTHERWISE STATED)**

**SUPPLEMENTARY PREAMBLES**

Float glass

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

**Silvered float glass copper backed mirrors with polished edges, fixed with double sided adhesive tape and silicone**

**TOPS, SHELVES, DOORS, MIRRORS, ETC**

1,00

600 x 450 x 3mm glass mirror 1 (Labour Intensive)

No

0

Carried to Collection Summary

Section No. 3

R

Bill No. 12  
Glazing



**SECTION NO. 3**  
**SUPER STRUCTURE**  
**BILL NO. 13**  
**PAINTWORK**

**(CPAP WORK GROUP NO. 152 UNLESS OTHERWISE STATED)**

**PREAMBLES**

The Tenderer is referred to the relevant clauses in the separate documents General Preambles for Trades (2017 Edition).

**SUPPLEMENTARY PREAMBLES**

Proprietary products in descriptions

Proprietary products shall be used as specified.

Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent

**Working at Heights:**

Bidders are to note that the work to be undertaken will require all necessary scaffolding, due to the heights of the structures to be constructed/altered. Bidders are to therefore price accordingly as rates will be deemed to include for same and no further claims in regard to all necessary scaffolding in the completion of the scope of works will be entertained.

**General preparation to all surfaces:**

All surfaces (interior and exterior) shall be thoroughly cleaned down before decoration to remove all dirt, grease, dust and rust, etc. as applicable by whatever means necessary without damage to surfaces beneath, and in strict accordance with the paint manufacturers instructions to leave same in perfect condition to receive new paintwork.

All surfaces shall be sanded down smooth prior to application of first coat of paint and between succeeding coats.

Spot sheets are to be provided to prevent spotting of all adjacent surfaces.

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Carried Forward |

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**Section No. 3****Bill No. 13****Paintwork****Finishing coats:**

Bidders are to note that where two or more finishing coats are specified, this is the minimum requirement in order to achieve a finished surface of high quality. Should insufficient cover be achieved after said minimum, additional coats are to be applied at no additional cost to the Contract and to the satisfaction of the Principal Agent. Onus therefore rests on the Contractor to ensure that preparatory work is sufficient.

**Sight lines:**

The Contractor is to note that careful attention is required to ensure that paintwork does not encroach over sight lines. Masking of adjacent surfaces is to be carried out, if deemed necessary or if instructed by the Principal Agent, at no additional cost.

**Surfaces to be dry:**

All plastered wall and ceiling surfaces shall be perfectly dry prior to application of paint.

**Sanding to timber floors:**

Timber floors are to be sanded as necessary to achieve a smooth surface free of defects, indentations, imperfections and the like, and suitable to painting of a high quality finish. No additional claims in this regard will be entertained.

**Moisture content:**

The moisture level of the substrate must be less than 8% on the BD2 scale measure on the Dozer Hygrometer before applying the primer

**PAINTWORK, ETC TO NEW WORK****ON INTERNAL FLOATED PLASTER SURFACES**

**Prepare, stop and apply one coat plaster primer paint and two coats 'Plascon' double velvet interior paint or other approved**

1,00	On internal walls, soffit of slab, beams, etc(Labour Intensive)	m <sup>2</sup>	0
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**ON EXTERNAL FLOATED PLASTER SURFACES**

**Prepare, stop and apply one coat plaster primer paint and two coats 'Plascon' Velvaglo Satin exterior paint or other approved**

2,00	On external walls, soffit of slab, beams, etc(Labour Intensive)	m <sup>2</sup>	0
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3,00	On sloping top of sills 150mm wide (Labour Intensive)	m	120
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4,00

On plasterbands not exceeding 100mm wide (Labour

m

100

**Carried Forward**



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**Section No. 3**

**Bill No. 13**

**Paintwork**

**ON SMOOTH CONCRETE SURFACES**

5,00 On concrete ceilings and beam (Labour Intensive) m<sup>2</sup> 10

**ON PLASTER BOARD**

**Prepare and clean down thoroughly to remove all dirt, grime, debris, contaminants and deleterious matter and apply one 'Dulux' or other approved filler coat, and 2 coats 'Dulux' or other approved acrylic PVA.**

6,00 On ceilings and cornices (Labour Intensive) m<sup>2</sup> 120

**ON NEW FIBRE-CEMENT BOARD SURFACES**

**One coat alkali resistant primer and two coats superior quality acrylic emulsion paint for interior and exterior use**

7,00 Fascias and barge boards , including priming metal jointing strips (Labour Intensive) m<sup>2</sup> 0

**ON NEW METAL SURFACES**

**One coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint, on steel**

8,00 Door frames etc (Labour Intensive) m<sup>2</sup> 0

**ON WOOD SURFACES**

**One coat primer and three coats premium quality polyurethane enamel paint**

9,00 Doors (Labour Intensive) m<sup>2</sup> 0

Carried to Collection Summary

Section No. 3

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Bill No. 13  
Paintwork

**SECTION NO. 03**  
**SUPER STRUCTURE**  
**SECTION SUMMARY**

**Bill No.**

1,00	CONCRETE, FORMWORK AND REINFORCEMENT	R
2,00	MASONRY	R
3,00	WATERPROOFING	R
4,00	ROOF COVERING	R
5,00	CAPERNTY AND JOINERY	R
6,00	CEILING PARTITIONS AND ACCESS FLOORING	R
7,00	IRONMONGERY	R
8,00	METALWORK	R
9,00	PLASTERING	R
10,00	TILING	R
11,00	PLUMBING AND DRAINAGE	R
12,00	GLAZING	R
13,00	PAINTWORK	R
	<b>SECTION NO.03 TOTAL</b>	<b>R</b>

## SECTION NO.05: ELECTRICAL AND FIRE

No.	Description	Unit	Quantity	Rate	Amount
	<u>SECTION NO.05</u> <u>BILL NO.01</u> <u>ELECTRICAL</u>				
1	<u>LIGHTING</u>				
1.1	<u>Outdoor fittings</u>				
1.1.1	(60W) or similar	No	48		