

**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward		R
<u>ROOF COVERINGS, ETC.</u>		
<u>(CPAP WORK GROUP NO. 125 UNLESS OTHERWISE STATED)</u>		
<u>PROFILED METAL SHEETING AND ACCESSORIES</u>		
<u>0.53mm Macsteel conceal-fixed roof sheeting with a colour Volcanic Grey finish to one side with a Cool Grey backing coat including accessories and fixed to timber purlins (elsewhere measured) using 80mm x 1.2mm G230 cleats. Installation as per manufacturer's recommendations.</u>		
53	Roof covering with pitch not exceeding 25 degrees (LI) m2	25
<u>ROOF INSULATION</u>		
<u>Non-combustible Aluminium Foil based insulation</u>		
54	135mm Glass mineral insulation laid taut over purlins and fixed concurrent with roof covering including galvanised steel straining wires and 48mm DS tape, installed as per manufacturers guidelines. (LI) m2	25
<u>Flashings, cappings, Etc.</u>		
55	Side wall flashings, 506mm girth two times bent and notched on site to suit roof profile (LI) m	10
56	Head wall flashings 375mm girth two times bent and notched on site to suit roof profile (LI) m	5
57	Counter-flashings, 180mm girth with approved sealant by specialist to suit roof profile (LI) m	15
58	Sondor IBR pattern polyclosures to match sheeting profile (LI) m	5
Carried Forward		R
Section No. 5 Bill No. 11 Living Quarters Refuse Area		

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward		R
<u>CARPENTRY AND JOINERY</u>		
<u>(CPAP WORK GROUP NO. 126 UNLESS OTHERWISE STATED)</u>		
<u>ROOFS, ETC</u>		
<u>Sawn softwood</u>		
59	38 x 110mm Wall plates (LI) m	12
60	152 x 38mm Rafter (LI) m	28
61	50 x 75mm Purlins (LI) m	24
<u>EAVES, VERGES, ETC</u>		
<u>Medium density plain fibre-cement fascias</u>		
62	8 x 225mm Fascia boards including galvanised steel H-profile jointing strips m	6
<u>METALWORK</u>		
<u>(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)</u>		
<u>STEEL STRONGROOM DOORS, VENTILATORS, ETC</u>		
<u>Louvred doors etc suitable for 220mm walls fixed to brickwork</u>		
63	1510 x 2032mm High steel double louvred door, consisting of two equal leaves of size 755 x 2032mm high with minimum 100mm rebated meeting stiles and 50mm frame complete with mechanism, lock and fixing lugs Refer to Architects Drawing - Door schedule S4-500A Rev 5 (Door type: SD-D) No	1
Carried Forward		R

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Living Quarters Refuse Area

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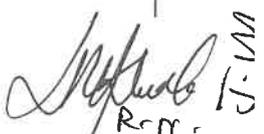
SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward							
<u>PLASTERING</u>							
<u>(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)</u>							
<u>GRANOLITHIC</u>							
<u>"Stoncor Euclid Chemical" or other equal and approved fully bonded, untinted granolithic, rapid hardening mortar topping on concrete, including 6mm washed aggregate and sealed with "Euco Diamond hard" sealer</u>							
64	35mm Thick steel floated finish, laid in accordance to manufacturers recommendations (LI)	m2	25				
65	Skirtings 75mm high (LI)	m	15				
<u>DRAINAGE</u>							
<u>(CPAP WORK GROUP NO. 146 UNLESS OTHERWISE STATED)</u>							
<u>RAINWATER DISPOSAL</u>							
<u>Pre-coated seamless aluminium gutters including matching rivet fixed mitres and end caps sealed using silicon mastic hung by screw fixed internal aluminium hangers at 600mm centres with accessories installed in accordance with manufacturer's instructions, colour to Architects approval (non-standard colours)</u>							
66	185 x 165mm Modern box gutter with support brackets at 600mm centres	m	6				
<u>"Marley Vynadeep" or other equal and approved SABS grade uPVC pipes</u>							
67	70mm Diameter rain water down pipe	m	3				
68	Extra over eaves gutter for outlet for 70mm pipe	No	1				
69	Extra over eaves gutter for drop box suitable for 70mm diameter gutter	No	1				
70	Extra over gutter for angle	No	1				
Carried Forward							
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Living Quarters Refuse Area							

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

		Brought Forward		R
71	Extra over gutter for shoe	No	1	
	<u>WASTE UNIONS ETC</u>			
	<u>"Geberit" or other equal and approved</u>			
72	Geberit stainless steel Varino 50mm diameter floor drain (code: 338.032.00.1) with and including stainless steel perforated drain cover (code: 388.105.00.1) with tamper proof screws and finished flush with porcelain tile floor finish	No	1	
	<u>PLUMBING</u>			
	<u>(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE STATED)</u>			
	<u>TAPS, VALVES, ETC.</u>			
	<u>"Cobra" or other equal and approved</u>			
73	Chrome plated heavy pattern medical pillar tap (Code: 505-21B/HP)	No	1	
	<u>PAINTWORK</u>			
	<u>(CPAP WORK GROUP NO. 152 UNLESS OTHERWISE STATED)</u>			
	<u>ON FIBRE-CEMENT SURFACES</u>			
	<u>Prepare and apply, one coat alkali resistant primer, one undercoat and two coats approved exterior quality acrylic PVA emulsion paint to selected tints on</u>			
74	Fascia boards	m2	4	
	<u>ON METAL SURFACES</u>			
	<u>Prepare and apply one coat phosphate epoxy primer and two coats polyurethane paint</u>			
75	Doors and frames	m2	6	
	Carried Forward to Summary of Section No. 5			R
	Section No. 5			
	Bill No. 11			
	Living Quarters Refuse Area			

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 12</u>			
	<u>SEPTIC TANK (ALL TRADES)</u>			
	<u>(PROVISIONAL)</u>			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition)			
	<u>EARTHWORKS</u>			
	<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>			
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Holes (Tank). (LI)	m3	440	
	<u>Excavation in earth exceeding 2m but not exceeding 4m deep</u>			
2	Holes (Tank). (LI)	m3	132	
	<u>Back excavation of vertical sides of excavation in earth for working space including backfilling compacted to 98% Mod. AASHTO density</u>			
3	Not exceeding 1,5m deep, etc. 300mm away from excavated face (LI)	m2	144	
4	Exceeding 1,5m and not exceeding 3m deep, etc. 300mm away from excavated face (LI)	m2	105	
	<u>Extra over bulk excavations in earth for excavation in</u>			
5	Soft rock	m3	57	
6	Hard rock	m3	29	
	Carried Forward		R	
	Section No. 5			
	Bill No. 12			
	Septic Tank			



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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward							
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		<u>Extra over back excavation in earth for working space for excavation in soft rock</u>					
7	Not exceeding 1,5m deep, etc. 300mm away from excavated face (LI)	m2	144				
8	Exceeding 1,5m and not exceeding 3m deep, etc. 300mm away from excavated face (LI)	m2	105				
		<u>Extra over back excavation in earth for working space for excavation in hard rock</u>					
9	Not exceeding 1,5m deep, etc. 300mm away from excavated face (LI)	m2	144				
10	Exceeding 1,5m and not exceeding 3m deep, etc. 300mm away from excavated face (LI)	m2	105				
		<u>Extra over all excavations for carting away</u>					
11	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	572				
		<u>Risk of collapse of excavations</u>					
12	Sides of trench and hole excavations not exceeding 1,5m deep (LI)	m2	144				
13	Sides of trench and hole excavations exceeding 1,5m and not exceeding 3m deep (LI)	m2	105				
		<u>Keeping excavations free of water</u>					
14	Keeping excavations free of all water other than subterranean water.					Item	
		<u>Compaction of surfaces</u>					
15	Compaction of ground surface under floors, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod. AASHTO density. (LI)	m2	220				
		<u>Prescribed density tests on filling</u>					
16	"Modified AASHTO Density" test	No	6				
		Carried Forward					
							R

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Bill No. 12
Septic Tank



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CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward		R
17	"Field Density" test including "Optimum Moisture Content" (four readings per test)	6
	<u>SOIL POISONING</u>	
	<u>Soil insecticide in accordance with SANS 5859</u>	
18	Under floors etc including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	220
	<u>CONCRETE, FORMWORK & REINFORCEMENT</u>	
	<u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u>	
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>	
	<u>15MPa Concrete</u>	
19	Surface blinding under footings and bases. (LI)	11
	<u>REINFORCED CONCRETE CAST AGAINST/ON FORMWORK</u>	
	<u>25MPa/19mm concrete</u>	
20	Tank bases. (LI)	55
21	Slabs including beams and inverted beams. (LI)	54
	<u>TEST BLOCKS</u>	
	<u>Test blocks</u>	
22	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional)	6
	Carried Forward	R

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward			R
<u>CONCRETE SUNDRIES</u>			
<u>Finishing top surfaces of concrete smooth with a wood float</u>			
23	Surface beds, slabs, etc. (LI)	m2	217
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>(CPAP WORK GROUP NO. 111 UNLESS OTHERWISE STATED)</u>			
<u>Rough formwork to sides</u>			
24	Edges, risers, ends and reveals not exceeding 300mm high or wide. (LI)	m	95
25	Edges exceeding 300mm high (LI)	m2	34
<u>Rough formwork to soffits</u>			
26	Slabs, propped up exceeding 1.5m and not exceeding 3.5m high (LI)	m2	185
<u>Rough formwork to form</u>			
27	Opening not exceeding 2m girth through not exceeding 250mm slab (LI)	No	4
<u>Boxing in rough formwork to form</u>			
28	25 x 25mm High horizontal projections to sides of walls. (LI)	m	4
<u>MOVEMENT JOINTS, ETC.</u>			
<u>10mm Slip joints between horizontal concrete and brick surfaces with two layers of tamped masonite</u>			
29	Not exceeding 300mm wide (LI)	m	103
Carried Forward			R
Section No. 5 Bill No. 12 Septic Tank			

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CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward			R
<u>REINFORCEMENT (CPAP WORK GROUP NO. 114)</u>			
<u>Mild steel reinforcement to structural concrete work</u>			
30	8mm Diameter bars (LI)	t	4.15
31	10mm Diameter bars (LI)	t	5.00
<u>High tensile steel reinforcement to structural concrete work</u>			
32	10mm Diameter bars (LI)	t	2.15
33	12mm Diameter bars (LI)	t	2.00
34	16mm Diameter bars (LI)	t	5.00
<u>MASONRY</u>			
<u>(CPAP WORK GROUP NO. 116 UNLESS OTHERWISE STATED)</u>			
<u>BRICKWORK IN FOUNDATIONS</u>			
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar</u>			
35	345mm brick walls. (LI)	m2	226
<u>BRICKWORK SUNDRIES</u>			
<u>Galvanised brickwork reinforcement</u>			
36	230mm Wide reinforcement built in horizontally (LI)	m	2,731
<u>WATERPROOFING (CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)</u>			
<u>Joint Sealants, etc</u>			
37	2mm Thick x 225mm wide in slip joints between horizontal concrete beam and brick surfaces	m	103
Carried Forward			R
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Brought Forward							
<u>IRONMONGERY</u>							
<u>(CPAP WORK GROUP NO. 132 UNLESS OTHERWISE STATED)</u>							
<u>LETTERS, NAMEPLATES, ETC.</u>							
<u>Road signs with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc.</u>							
38	'Driving Prohibited' sign	No	2				
<u>PLASTERING</u>							
<u>(CPAP WORK GROUP NO. 142 UNLESS OTHERWISE STATED)</u>							
<u>INTERNAL PLASTER</u>							
<u>Cement plaster steel trowelled, on brickwork</u>							
39	On walls. (LI)	m2	266				
<u>EXTERNAL PLASTER</u>							
<u>Cement plaster steel trowelled, on brickwork</u>							
40	On walls. (LI)	m2	247				
<u>SOAK-AWAY (ALL TRADES) (PROVISIONAL)</u>							
<u>EARTHWORKS</u>							
<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>							
<u>EXCAVATION, FILLING, ETC</u>							
<u>Excavation in earth not exceeding 2m deep</u>							
41	Holes (LI)	m3	300				
Section No. 5 Bill No. 12 Septic Tank		Carried Forward					R

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Brought Forward			R
<u>Excavation in earth exceeding 2m but not exceeding 4m deep</u>			
42	Holes (LI)	m3	135
<u>Extra over bulk excavations in earth for excavation in</u>			
43	Soft rock	m3	44
44	Hard rock	m3	22
<u>Extra over all excavations for carting away</u>			
45	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	435
<u>Risk of collapse of excavations</u>			
46	Sides of bulk excavations not exceeding 1,5m deep (LI)	m2	623
47	Sides of bulk excavations exceeding 1,5m deep (LI)	m2	581
<u>EARTH FILLING, ETC</u>			
<u>Earth filling supplied by the Contractor compacted to 98% Mod. AASHTO density</u>			
48	310mm Thick layer of 19mm diameter stone filling on ground for soakaways, etc. (LI)	m3	47
49	840mm Thick layer of G7 type material filling in soakaways, etc. (LI)	m3	126
<u>Keeping excavations free of water</u>			
50	Allow for keeping excavations free of water other than subterranean water	Item	
Carried Forward			R

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Septic Tank

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward		R
<u>PLUMBING AND DRAINAGE</u>		
<u>(CPAP WORK GROUP NO. 148 UNLESS OTHERWISE STATED)</u>		
<u>DRAINAGE</u>		
<u>Class 34 HD Perforated uPVC sewer and drain pipes</u>		
51	110mm Pipes laid in and including trenches not exceeding 1m deep (LI)	m 360
<u>Extra over Class 34 HD uPVC sewer and drain pipes for fittings</u>		
52	110mm Bend	No 10
53	110mm Open joint cover	No 100
<u>Cast iron pipes</u>		
54	100mm Pipes laid in vertically etc (LI)	m 130
<u>Extra over cast iron pipes for fittings</u>		
55	110mm End cap	No 50
<u>Sumps, manholes, etc</u>		
56	Brick manhole size internally 600 x 600mm not exceeding 1000mm deep to invert fitted with and including 600 x 600mm cast iron cover and frame including excavations, backfill, bedding, etc. (Refer to Engineer's drawing No 589/906 Rev P1) (LI)	No 2
<u>Sundries</u>		
57	Extra over excavation in earth for pipe trenches, chambers, etc., for excavation in intermediate material (LI)	m3 10
58	Extra over excavation in earth for pipe trenches, chambers, etc., for excavation in hard material (LI)	m3 10
Carried Forward		R

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward

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Testing

59 Allow for testing the whole of the Soil Drainage to the satisfaction of the Principal Agent and Local Authorities
All defective work is to be taken out and replaced at the contractor's expense and the whole re-tested until found satisfactory

Item

LANDSCAPING

Rockery boulders

60 700mm Thick layer of 150mm diameter boulders filling laid on ground for soakaways, etc. (LI)

m3

105

61 1000mm Thick layer of 300mm diameter boulders filling laid in ground for soakaways, etc. (LI)

m3

150

Carried Forward to Summary of Section No. 5

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Septic Tank

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 13</u>			
	<u>RETAINING STRUCTURES</u>			
	<u>CONCRETE RETAINING STRUCTURES (PROVISIONAL)</u>			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition).			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Trenches (LI).	m3	112	
	<u>Back excavation of vertical sides of excavations in earth for working space including backfilling compacted to 95% Mod AASHTO density</u>			
2	Exceeding 500mm and not exceeding 1500mm deep for placing and removing formwork to walls etc against excavated face (LI)	m2	137	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
3	Soft rock	m3	19	
4	Hard rock	m3	13	
	<u>Extra over all excavations for carting away</u>			
5	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	73	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavations not exceeding 1,5m deep (LI)	m2	137	
	Carried Forward		R	
	Section No. 5 Bill No. 13 Retaining Structures			

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CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward			R
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>15MPa/19mm concrete</u>			
13	Surface blinding under footings and bases (LI).	m3	6
<u>30MPa/19mm concrete</u>			
14	Ground beams (LI)	m3	38
15	Retaining walls (LI)	m3	83
<u>TEST CUBES</u>			
16	Prepare a set of six concrete cubes each cube size 150 x 150 x 150mm for strength cubes and deliver to an approved laboratory for testing and pay all charges in connection therewith	No	4
<u>CONCRETE SUNDRIES</u>			
<u>"Penetron" or other equal and approved admixture with tracing agent 0.8% - 1% per cementitious content of concrete waterproofing additive</u>			
17	Extra over concrete for waterproofing on roof, floor slabs and retaining walls	m3	10
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>Rough formwork to sides</u>			
18	Foundation beams (LI)	m2	11
19	Walls in foundations with total wall height not exceeding 3.5m high (LI)	m2	87
20	Walls with total height exceeding 3,5m and not exceeding 5m above bearing level (LI)	m2	511
Carried Forward			R
Section No. 5 Bill No. 13 Retaining Structures			

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**GABIONS AND INTERLOCKING BLOCK
RETAINING STRUCTURES (PROVISIONAL)**

GABION RETAINING STRUCTURES

**(CPAP WORK GROUP NO. 146 UNLESS
OTHERWISE STATED)**

The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition).

Gabions retaining walls

Gabion boxes and mattresses are available in a wide range of qualities, types and sizes. It is advisable to obtain the specification from the engineer. The following is a typical specification:

Gabions are to be of double twisted hexagonal woven steel wire mesh type 80 made of galfan and polymeric coated wire framing to SANS 675 and SANS 10244-1.

Gabions of galfan and polymer wire boxes laced together and filled with broken stone

28	1000mm Thick retaining wall of 1,5 x 1 x 1m boxes properly bonded (LI)	m3	45
29	1000mm Thick retaining wall of 2 x 1 x 1m boxes properly bonded (LI)	m3	120

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Geocomposite planar drainage comprising of thermobonding of monofilaments with two non-woven geotextiles

30	Under stone filled baskets including preparing ground surface (LI)	m2	210
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Retaining Structures

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward		R
<u>DRAINAGE</u>		
<u>'MacPipe 110' or other equal and approved uPVC pipe to end outside the wall every 20 metre centres</u>		
31	110mm Diameter uPVC pipe (LI) m	158
<u>Class 100D reinforced concrete pipes with ogee joints with approved rubber collars, laid on bedding in accordance with Class 'D' of SABS 1200</u>		
32	450mm Pipe in ground including excavation exceeding 1m not exceeding 2m deep (LI) m	10
<u>Headwall</u>		
33	Storm water head wall outlet formed of one brick wall 600 x 1150mm long with two one brick 35 degree splayed wing walls average 300mm high and 1000mm long, the wall on and including 1100 x 250mm thick (25Mpa/19mm) concrete apron slab and the area between the walls filled in with 150mm thick (25Mpa/19mm) concrete surface bed, including Reno mattress size 6000 x 2000 x 300mm high. Refer to Engineer's drawing No 589/MSI/909 (LI) No	1
34	Storm water head wall outlet formed of one brick wall 600 x 1150mm long with two one brick 35 degree splayed wing skew walls average 300mm high and 1500mm long, the wall on and including 1100 x 250mm thick (25Mpa/19mm) concrete apron slab and the area between the walls filled in with 150mm thick (25Mpa/19mm) concrete surface bed, including Reno mattress size 6000 x 2000 x 300mm high. Refer to Engineer's drawing No 589/MSI/909 (LI) No	1
<u>Sundries</u>		
35	Extra over excavation in earth for pipe trenches, chambers, etc., for excavation in intermediate material m3	2
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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward			R
<u>INTERLOCKING BLOCK RETAINING STRUCTURES</u>			
<u>EARTHWORKS (PROVISIONAL)</u>			
<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>			
<u>EXCAVATIONS, ETC</u>			
<u>Excavation in earth not exceeding 2m deep</u>			
36	Trenches (LI)	m3	134
<u>Risk of collapse of excavations</u>			
37	Sides of trench excavations not exceeding 1,5m deep (LI)	m2	269
<u>Keeping excavations free of water</u>			
38	Allow for keeping excavations free of water other than subterranean water		Item
<u>Extra over all excavations for carting away</u>			
39	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	127
<u>Granular soil filling material supplied by the contractor</u>			
40	Backfilling to Retaining blocks (LI)	m3	24
<u>6% Cement stabilised G7 Imported filling material supplied by the contractor, compacted to 95% Mod AASHTO density</u>			
41	Backfilling behind retaining walls (LI)	m3	498
Carried Forward			R

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SOUTH AFRICAN POLICE SERVICES
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Brought Forward					
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>					
<u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u>					
<u>25MPa/19mm Concrete reinforced concrete</u>					
42	Strip footings (LI)	m3	35		
<u>Test blocks</u>					
43	Prepare a set of six concrete cubes each cube size 150 x 150 x 150mm for strength cubes and deliver to an approved laboratory for testing and pay all charges in connection therewith	Sets	3		
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>					
<u>(CPAP WORK GROUP NO. 111 UNLESS OTHERWISE STATED)</u>					
<u>Rough formwork to sides</u>					
44	Strip footings (LI)	m2	436		
<u>REINFORCEMENT (PROVISIONAL)</u>					
<u>(CPAP WORK GROUP NO. 114)</u>					
<u>Fabric reinforcement</u>					
45	Type 245 fabric reinforcement in concrete footings, etc (LI)	m2	193		
Carried Forward				R	

Section No. 5
Bill No. 13
Retaining Structures

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward

R

METALWORK

(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)

**HOT DIPPED GALVANISED STEEL
BALUSTRADES, ETC**

Welded balustrading to ramps and walkways

46	Galvanised mild steel horizontal balustrade 1000mm high formed of 3 x 50mm diameter hollow section steel handrail welded to a 50 x 50 x 3mm mild steel square tubing vertical posts, fixed to concrete using a 10mm diameter mild steel bar anchored into concrete and epoxy filled with 16mm diameter bright mild steel intermediate bars at 100mm centres rods enclosed in a 50 x 5mm mild steel flat bar frame with the frame joined to the vertical posts by means of welded 10mm mild steel bars, all to Architects approval	m	30
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PRECAST CONCRETE

(CPAP WORK GROUP NO. 112 UNLESS OTHERWISE STATED)

Precast concrete interlocking planter blocks finished smooth on exposed surfaces

47	Retaining walls with stepped face and curves as required to suit slopes formed of type L300 blocks laid with horizontal bed joints to 65 degree slope (LI)	m2	112
48	Retaining walls with stepped face and curves as required to suit slopes formed of type L500 blocks laid with horizontal bed joints to 65 degree slope (LI)	m2	168
49	Retaining walls with stepped face and curves as required to suit slopes formed of type L750 blocks laid with horizontal bed joints to 65 degree slope (LI)	m2	224

Precast concrete channels

50	Precast concrete storm water channel size 385mm wide x 170mm high (LI)	m	112
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Carried Forward

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Section No. 5
Bill No. 13
Retaining Structures

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward

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STONE WEEPHOLES

(CPAP WORK GROUP NO. 116 UNLESS OTHERWISE STATED)

51	170 X 170 X 15mm Stone weepholes	No	231
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Carried Forward to Summary of Section No. 5

Section No. 5
Bill No. 13
Retaining Structures

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 14</u>			
	<u>WATER TANK SUPPORTS</u>			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition).			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>			
	<u>EXCAVATION OTHER THAN BULK</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Trenches (LI)	m3	11	
	<u>CARTING AWAY</u>			
	<u>Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk)</u>			
2	Off site to be located by the contractor	m3	11	
	<u>EARTH FILLING, ETC</u>			
	Note: All filling whether obtained from the excavations, from stockpiles or by the contractor from an outside source must be selected and approved by the Structural / Civil Engineers			
	<u>Imported 'G7' filling supplied and carted onto site by the contractor, compacted to a density of 95% Mod AASHTO density</u>			
3	Under floors, steps, pavings, etc (LI)	m3	16	
	Carried Forward			R
	Section No. 5 Bill No. 14 Water Tanks Supports			

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward			R
<u>KEEPING EXCAVATIONS FREE OF WATER</u>			
<u>Keeping excavations free of water</u>			
4	Allow for keeping excavations free of water or mud by hand or machinery	Item	
<u>COMPACTION</u>			
<u>Compaction of surfaces</u>			
5	Compaction of ground surfaces under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod. AASHTO density (LI)	m2	24
<u>TESTS</u>			
<u>Prescribed density tests on filling</u>			
6	Modified AASHTO Density test	No	2
7	"Field Density" test including "Optimum Moisture Content" (four readings per test)	No	2
<u>SOIL POISONING</u>			
<u>Soil insecticide in accordance to SANS 5859</u>			
8	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming	m2	24
Carried Forward			R

Section No. 5
Bill No. 14
Water Tanks Supports

RJ **375** *Hoffman*
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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

	Brought Forward				R
	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>				
	<u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u>				
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>				
	<u>10MPa Concrete</u>				
9	Surface blinding under footings, bases, etc (LI)	m3	1		
	<u>REINFORCED CONCRETE CAST AGAINST/ON FORMWORK</u>				
	<u>25MPa/19mm Concrete</u>				
10	Foundation beams (LI)	m3	11		
	<u>CONCRETE SUNDRIES</u>				
	<u>Finishing top surfaces of concrete with a wood float</u>				
11	Surface beds, slabs, etc (LI)	m2	24		
	<u>Test blocks</u>				
12	Prepare a set of six concrete cubes each cube size 150 x 150 x 150mm for strength cubes and deliver to an approved laboratory for testing and pay all charges in connection therewith	Sets	2.00		
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY III)</u>				
	<u>(CPAP WORK GROUP NO. 111)</u>				
	<u>Rough formwork to sides</u>				
13	Foundation beams circular to exceeding 1m radius (LI)	m2	24		
	Carried Forward				R

Section No. 5
Bill No. 14
Water Tanks Supports



 RJ 376

SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward

R

REINFORCEMENT (PROVISIONAL)

(CPAP WORK GROUP NO. 114)

Mild steel reinforcement to structural concrete work

14	8mm Diameter bars (LI)	t	0.42
15	10mm Diameter bars (LI)	t	0.52

Carried Forward to Summary of Section No. 5

Section No. 5
Bill No. 14
Water Tanks Supports

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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 15</u>			
	<u>ROADWORK, PARKING AREAS AND PAVING</u>			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition).			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>			
	<u>EXCAVATIONS, ETC</u>			
	<u>Excavation not exceeding 2m deep</u>			
1	Reduced levels under floors (LI)	m3	2,303	
2	Holes (LI)	m3	85	
	<u>Extra over all excavations for carting away</u>			
3	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor	m3	2,388	
	<u>EARTH FILLING, ETC</u>			
	Note: All filling whether obtained from the excavations, from stockpiles or by the contractor from an outside source must be selected and approved by the Structural / Civil Engineers			
	<u>Imported G6 filling supplied by the contractor compacted to 92% Mod AASHTO density</u>			
4	Backfilling to trenches, holes (LI)	m3	48	
	Carried Forward			R
	Section No. 5 Bill No. 15 Roadworks, Parking areas and Paving			



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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward			R
<u>Earth filling supplied by the Contractor under pavings, etc</u>			
5	150mm G2 Material in accordance with SABS 1200 DM compacted to 102% Mod. AASHTO density (LI)	m3	552
6	150mm G5 Material in accordance with SABS 1200 DM compacted to 98% Mod. AASHTO density (LI)	m3	540
7	150mm G7 Material in accordance with SABS 1200 DM compacted to 95% Mod. AASHTO density (LI)	m3	540
8	150mm G8 Material in accordance with SABS 1200 DM compacted to 93% Mod. AASHTO density (LI)	m3	540
<u>Risk of collapse of excavations</u>			
9	Sides of trench and hole excavations not exceeding 1,5m deep (LI)	m2	227
<u>Additional tests required by the engineer</u>			
10	"Modified AASHTO Density" test	No	8
<u>Keeping excavations free of water</u>			
11	Keeping excavations free of all water other than subterranean water		Item
<u>Compaction of surfaces</u>			
12	Compaction of ground surface under pavings, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod. AASHTO density (LI)	m2	3,599
<u>Soil insecticide in accordance with SANS 5859</u>			
13	Under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming	m2	3,599
Carried Forward			R

Section No. 5
Bill No. 15
Roadworks, Parking areas and Paving

RJ 379

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

	Brought Forward			R
	<u>CONCRETE, FORMWORK & REINFORCEMENT</u>			
	<u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u>			
	<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
	<u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u>			
	<u>10MPa/19mm concrete</u>			
14	Surface blinding under footings and bases (LI)	m3	4	
	<u>REINFORCED CONCRETE CAST AGAINST/ON FORMWORK</u>			
	<u>25MPa/19mm concrete</u>			
15	Bases. (LI)	m3	32	
	<u>30MPa/19mm concrete</u>			
16	Columns in foundations (LI)	m3	5	
	<u>TEST BLOCKS</u>			
	<u>Test blocks</u>			
17	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes (Provisional)	No	2	
	<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
	<u>(CPAP WORK GROUP NO. 111 UNLESS OTHERWISE STATED)</u>			
	<u>Rough formwork to sides</u>			
18	Bases (LI)	m2	86	
19	Columns in foundations (LI)	m2	40	
	Carried Forward			R
	Section No. 5 Bill No. 15 Roadworks, Parking areas and Paving			



 RJ 380 J.J.M.
 R.M.

SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward			R
<u>REINFORCEMENT</u>			
<u>(CPAP WORK GROUP NO. 114)</u>			
<u>Mild steel reinforcement to structural concrete work</u>			
20	8mm Diameter bars (LI)	t	1.40
21	10mm Diameter bars (LI)	t	1.50
<u>High tensile steel reinforcement to structural concrete work</u>			
22	10mm Diameter bars (LI)	t	1.40
23	12mm Diameter bars (LI)	t	1.50
<u>ROADWORKS</u>			
<u>(CPAP WORK GROUP NO. 154 UNLESS OTHERWISE STATED)</u>			
<u>BITUMINOUS PREMIX ROAD SURFACING</u>			
24	40mm Thick (finished thickness) Continuously graded asphalt compacted to 96% density (LI)	m2	3,599
<u>PRECAST CONCRETE</u>			
<u>(CPAP WORK GROUP NO. 112)</u>			
<u>Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing</u>			
25	Kerb (SABS 927 fig. 7) 180 x 280mm high with 125mm haunching one side including continuous concrete (25MPa/19mm) footing and backing, including excavation, backfilling, etc and cast in situ concrete channel (LI)	m	873
26	Ditto, but circular on plan (LI)	m	70
Carried Forward			R
Section No. 5			
Bill No. 15			
Roadworks, Parking areas and Paving			



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Brought Forward

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SIGNAGE

Road signs with 50mm diameter galvanised mild steel post bedded in and including unreinforced concrete base, including any necessary excavation, paint finish, etc. All road signs and markings to be in accordance with the "South African Road Traffic Signs Manual" (Refer to drawing no. 589/914)

27	'Stop' sign	No	3	
28	'Yield to Pedestrians' sign	No	1	
29	'Side Road Junction' sign	No	2	
30	'T-Junction Chevron' sign	No	1	
31	'Emergency assembly point' sign	No	3	

STRUCTURAL STEELWORK

(CPAP WORK GROUP NO. 134 UNLESS OTHERWISE STATED)

GALVANIZED STEEL COLUMNS, BEAMS, CHANNELS, ETC

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

32	203 x 203 x 52mm Thick galvanised steel H-section columns	t	10.49	
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Welded beams in single lengths with flat section bearer and connection plates bolted to galvanised steel columns

33	IPE 200 x 22.4kg/m beams for structural support beams, etc.	t	2.98	
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Carried Forward

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Section No. 5
Bill No. 15
Roadworks, Parking areas and Paving

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward			R
<u>GALVANISED PURLINS, BRACING, POSTS, RAILS, ETC</u>			
<u>Purlins and girts bolted to steel</u>			
34	125 x 75 x 20 x 3mm Thick CFLC purlins	t	2.94
<u>Welded bracing etc with flat section connection plates bolted to steel</u>			
35	50 x 50 x 3mm x L-section bracing	t	0.47
36	70 x 70 x 6mm x L-section bracing	t	2.58
<u>GALVANISED BRACKETS, BRACING, ETC.</u>			
<u>Bolts to brackets, posts, etc.</u>			
37	M12 high tensile bolts (Class 8.8)	No	210
38	M20 high tensile bolts (Class 8.8)	No	504
39	M24 high tensile bolts (Class 8.8)	No	144
40	M24mm HD "U" shaped anchor bolts 1600mm long (Class 8.8)	No	72
<u>Sundries</u>			
41	25mm Thick non-shrink grout under base plates	m2	5.76
<u>Flashings, cappings, Etc.</u>			
42	Side flashings 408mm girth two times bent and notched on site to suit roof profile	m	183
Carried Forward			R

Section No. 5
Bill No. 15
Roadworks, Parking areas and Paving



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Brought Forward			R
<u>RAINWATER DISPOSAL</u>			
<u>(CPAP WORK GROUP NO. 148)</u>			
<u>Pre-coated seamless aluminium gutters including matching rivet fixed mitres and end caps sealed using silicon mastic hung by screw fixed internal aluminium hangers at 600mm centres with accessories installed in accordance with manufactures instructions, colour to Architects approval (non-standard colours)</u>			
43	200mm x 200mm Purpose made aluminium gutters	m	69
44	Extra over gutter for outlet for 100mm pipe	No	16
45	Extra over gutter for stopped end	No	6
46	Extra over gutter for angle	No	16
<u>Pre-coated seamless aluminium downpipes fixed to walls with pre-painted downpipe cleats using nail in anchor fixings, installed in accordance with manufacturers instructions, colour to Architects approval (non-standard colours)</u>			
47	100 x 75 x 0.6mm Thick rainwater downpipes	m	48
48	Extra over rainwater pipe for bend	No	32
49	Extra over rainwater pipe for shoe	No	16
<u>PAINTWORK</u>			
<u>(CPAP WORK GROUP NO. 152)</u>			
<u>Road marking paint on premix road surfaces (Refer to drawing no. 589/914)</u>			
50	White lines for road lanes (LI)	m	360
51	White lines for parking bays (LI)	m	482
52	White lines for pedestrian crossing (LI)	m	38
53	'Disabled Parking Bay' Marking (LI)	No	6
Carried Forward			R
Section No. 5			
Bill No. 15			
Roadworks, Parking areas and Paving			



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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

		Brought Forward		R
54	'Stop' Sign Marking (LI)	No	3	
	<u>ON METAL SURFACES</u>			
	<u>One coat Sigma Zinc 160 at 60 - 80 µm or other equally and approved, one coat Sigma Cover 410 at 125 - 150 µm or other equally and approved, and two coats Sigma Sigmadur 550 at 50 - 60 µm or other equally and approved</u>			
55	Structural steel members	m2	88	
Carried Forward to Summary of Section No. 5 Section No. 5 Bill No. 15 Roadworks, Parking areas and Paving				R <hr style="border: 0.5px solid black;"/> <hr style="border: 0.5px solid black;"/>

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Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 16</u>			
	<u>ATTENUATION POND</u>			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition).			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>			
	<u>EXCAVATIONS, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Excavation in earth to create dished attenuation pond (LI)	m3	230	
	<u>Extra over bulk excavation in earth for excavation in</u>			
2	Soft rock	m3	32	
3	Hard rock	m3	35	
	<u>Extra over all excavations for carting away</u>			
4	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	230	
	<u>Keeping excavations free of water</u>			
5	Keeping excavations free of all water other than subterranean water		Item	
	Carried Forward			R
	Section No. 5 Bill No. 16 Attenuation Pond			

RJ **386** R. M. M.
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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

	Brought Forward			R
<p><u>Headwall</u></p> <p>6 Storm water head wall outlet formed of one brick wall 600 x 1100mm long with two one brick 35 degree splayed wing walls average 300mm high and 1000mm long, the wall on and including 1100 x 250mm thick (25Mpa/19mm) concrete apron slab and the area between the walls filled in with 150mm thick (25Mpa/19mm) concrete surface bed, including Reno mattress size 6000 x 2000 x 300mm high. Refer to Engineer's drawing No 589/MSI/909 Rev P1 (LI)</p>	No	4		
<p>Carried Forward to Summary of Section No. 5</p> <p>Section No. 5 Bill No. 16 Attenuation Pond</p>				

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 17</u>			
	<u>BOUNDARY WALLS</u>			
	The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2017 Edition).			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>			
	<u>EXCAVATION, FILLING, ETC</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Trenches (LI)	m3	293	
2	Holes (LI)	m3	131	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
3	Soft rock	m3	55	
4	Hard rock	m3	83	
	<u>Extra over all excavations for carting away</u>			
5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	424	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavations not exceeding 1,5m deep (LI)	m2	836	
	Carried Forward			R
	Section No. 5 Bill No. 17 Boundary Wall			

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T.M.M

**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward			R
<u>Keeping excavations free of water</u>			
7	Keeping excavations free of all water other than subterranean water	Item	
<u>EARTH FILLING, ETC</u>			
Note: All filling whether obtained from the excavations, from stockpiles or by the contractor from an outside source must be selected and approved by the Structural / Civil Engineers			
<u>Imported G6 filling supplied by the contractor compacted to 92% Mod AASHTO density</u>			
8	Backfilling to trenches, holes, etc. (LI)	m3	149
<u>Compaction of surfaces</u>			
9	Compaction of ground surface under pavings, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod. AASHTO density. (LI)	m2	558
<u>Prescribed density tests on filling</u>			
10	"Modified AASHTO Density" test	No	4
11	"Field Density" test including "Optimum Moisture Content" (four readings per test)	No	4
<u>SOIL POISONING</u>			
<u>Soil insecticide in accordance with SANS 10124</u>			
12	To bottoms and sides of trenches, etc.	m2	1,394
Carried Forward			R

Section No. 5
Bill No. 17
Boundary Wall

RJ 389

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward			R
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>(CPAP WORK GROUP NO. 110 UNLESS OTHERWISE STATED)</u>			
<u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u>			
<u>10MPa/19mm concrete</u>			
13	Surface blinding under footings and bases (LI)	m3	19
<u>REINFORCED CONCRETE</u>			
<u>25MPa/19mm concrete</u>			
14	Strip footings (LI)	m3	96
15	Bases (LI)	m3	43
<u>TEST BLOCKS</u>			
16	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	4
<u>CONCRETE SUNDRIES</u>			
<u>"Penetron" or other equal and approved admixture with tracing agent 0.8% - 1% per cementitious content of concrete waterproofing additive</u>			
17	Extra over concrete for waterproofing on strip footings	m3	11
<u>ROUGH FORMWORK (DEGREE OF ACCURACY II)</u>			
<u>(CPAP WORK GROUP NO. 111)</u>			
<u>Rough formwork to sides</u>			
18	Strip footings (LI)	m2	275
19	Bases (LI)	m2	131
Carried Forward			R

Section No. 5
Bill No. 17
Boundary Wall

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 R. M.

SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Brought Forward			R
<u>REINFORCEMENT</u>			
<u>(CPAP WORK GROUP NO. 114 UNLESS OTHERWISE STATED)</u>			
<u>Mild tensile steel reinforcement to structural concrete work</u>			
20	8mm Diameter bars (LI)	t	5.20
21	10mm Diameter bars (LI)	t	5.20
<u>High tensile steel reinforcement to structural concrete work</u>			
22	10mm Diameter bars (LI)	t	5.20
23	12mm Diameter bars (LI)	t	5.20
<u>MASONRY</u>			
<u>(CPAP WORK GROUP NO. 116 UNLESS OTHERWISE STATED)</u>			
<u>FOUNDATIONS (PROVISIONAL)</u>			
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar in loadbearing walls etc.</u>			
24	Piers (LI)	m3	29
25	One brick walls (LI)	m2	281
<u>Brickwork reinforcement</u>			
26	230mm Wide reinforcement built in horizontally (LI)	m	5,972
<u>SUPERSTRUCTURE</u>			
<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar in loadbearing walls etc.</u>			
27	Piers (LI)	m3	169
28	One brick walls (LI)	m2	1,243
Carried Forward			R
Section No. 5 Bill No. 17 Boundary Wall			

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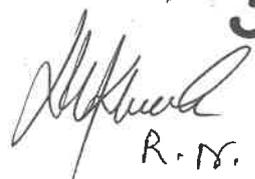
Brought Forward			R
<u>BRICKWORK SUNDRIES</u>			
<u>Bagging of 1:3 cement and sand mixture</u>			
29	On outer face of inner skin of brick walls including any additional labour required in raising wall in two separate skins and working around wire ties and / or brick reinforcing fabric (LI)	m2	1,243
<u>Brickwork reinforcement</u>			
30	230mm Wide reinforcement built in horizontally (LI)	m	4,971
<u>Joint forming material in movement joints</u>			
31	10mm Bitumen impregnated fibre board built in vertically between brick walls (LI)	m2	90
<u>Galvanised steel straps, etc.</u>			
32	30 x 1,2mm Thick galvanised steel straps 620mm long built into brickwork (LI)	No	582
<u>FACE BRICKWORK</u>			
<u>"Corobrik Autumn Wheat Travertine" or other equal and approved face bricks in stretcher bond with raked joints and perpends internally and externally</u>			
33	Extra over one brick walls in stretcher bond faced and pointed on both sides (LI)	m2	1,243
34	Extra over brickwork for brick-on-edge header course. (LI)	m	550
35	Extra over brickwork for face brick piers (LI)	m2	102
<u>WATERPROOFING</u>			
<u>(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)</u>			
<u>JOINT SEALANTS, ETC.</u>			
36	10 x 10mm In vertical expansion joints including raking out expansion joint filler as necessary	m	815
Carried Forward			R
Section No. 5 Bill No. 17 Boundary Wall			

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SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION

Item No		Quantity	Rate	Amount
	<u>SECTION NO. 5</u>			
	<u>EXTERNAL WORKS</u>			
	<u>BILL NO. 18</u>			
	<u>BRAAI AREA (PROVISIONAL) (ALL TRADES)</u>			
	<u>EARTHWORKS (PROVISIONAL)</u>			
	<u>(CPAP WORK GROUP NO. 104 UNLESS OTHERWISE STATED)</u>			
	<u>EXCAVATION, FILLING, ETC. OTHER THAN BULK</u>			
	<u>Excavation in earth not exceeding 2m deep</u>			
1	Reduced levels under floors (LI)	m3	23	
2	Trenches (LI)	m3	7	
	<u>Extra over trench and hole excavations in earth for excavation in</u>			
3	Soft rock	m3	5	
4	Hard rock	m3	3	
	<u>Extra over all excavations for carting away</u>			
5	Surplus material from excavations and/or stock piles on site, to a dumping site to be located by the contractor	m3	26	
	<u>Risk of collapse of excavations</u>			
6	Sides of trench and hole excavations not exceeding 1,5m deep (LI)	m2	21	
	<u>Keeping excavations free of water</u>			
7	Keeping excavations free of all water other than subterranean water	Item		
	Carried Forward		R	
	Section No. 5 Bill No. 18 Braai Area			


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Brought Forward							
<u>EARTH FILLING, ETC</u>							
Note: All filling whether obtained from the excavations, from stockpiles or by the contractor from an outside source must be selected and approved by the Structural / Civil Engineers							
<u>Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted in layers not exceeding 150mm thick to 95% Mod AASHTO density</u>							
8	Backfilling to trenches, holes (LI)	m3	4				
<u>Earth filling supplied by the Contractor under pavings, etc</u>							
9	150mm G2 Material in accordance with SABS 1200 DM compacted to 95% Mod. AASHTO density (LI)	m3	9				
10	150mm G5 Material in accordance with SABS 1200 DM compacted to 93% Mod. AASHTO density (LI)	m3	9				
<u>Coarse river sand filling supplied by the contractor</u>							
11	Under floors etc. (LI)	m3	1				
<u>Compaction of surfaces</u>							
12	Compaction of ground surface under floors, etc. including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 98% Mod. AASHTO density (LI)	m2	70				
<u>Prescribed density tests on filling</u>							
13	"Modified AASHTO Density" test	No	1				
14	"Field Density" test including "Optimum Moisture Content" (four readings per test)	No	1				
<u>SOIL POISONING</u>							
<u>Soil Insecticide in accordance with SANS 5859</u>							
15	Under floors, etc. including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming	m2	70				
Carried Forward							

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**CONCRETE, FORMWORK AND
REINFORCEMENT**

**(CPAP WORK GROUP NO. 110 UNLESS
OTHERWISE STATED)**

SUPPLEMENTARY PREAMBLES

Curing

All concrete is to be effectively cured for a minimum of 5 days

Cost of tests

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

Formwork

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

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

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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"

Concrete Finishes

Off Shutter Finishes must comply with SANS 2001-CC1:2007 Clause 5.2.5 - Smooth- special formwork.

After striking the shutter uneven areas must be rubbed to remove fins etc.

The "off shutter" areas must not be slushed.

The first "off shutter" wall must be prepared as a sample for approval. If approved it will be used as a bench mark for subsequent walls and columns.

Reinforcement

Steel bar reinforcement to comply with SANS 920 and cut and bent in accordance with SANS 82.

Welded steel fabric shall comply to SANS 1024 manufactured from plain hard drawn mild steel wire.

REINFORCED CONCRETE

25MPa/19mm Concrete

16	Strip footings (LI)	m3	2
17	Slabs (Worktop) (LI)	m3	0.2
18	Slabs (Bench) (LI)	m3	0.5
<u>Power floating finish to concrete surfaces</u>			
19	Surface beds, slabs, etc. (LI)	m2	5

Carried Forward

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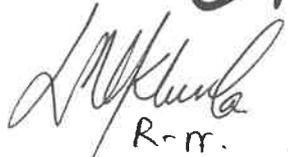
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**SOUTH AFRICAN POLICE SERVICES
CONSTRUCTION OF THE NEW MSINSINI POLICE STATION**

Brought Forward							
Test blocks							
20	Making and testing 150 x 150 x 150mm concrete strength test cubes	No					
				2			
FORMWORK							
(CPAP WORK GROUP NO. 111 UNLESS OTHERWISE STATED)							
ROUGH FORMWORK (DEGREE OF ACCURACY II)							
Rough formwork to sides							
21	Edges, risers, ends and reveals not exceeding 300mm high or wide (LI)	m					
				15			
Rough formwork to soffits							
22	Slabs, propped up exceeding not exceeding 1m high (LI)	m ²					
				5			
Boxing in smooth formwork to form							
23	25 x 25mm Chamfer along edges of slabs (LI)	m					
				15			
REINFORCEMENT							
(CPAP WORK GROUP NO. 114 UNLESS OTHERWISE STATED)							
Fabric reinforcement							
24	Type 395 fabric reinforcement in concrete slabs, ramps, stairs, etc. (LI)	m ²					
				5			
Carried Forward							
Section No. 5 Bill No. 18 Braai Area							

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	Brought Forward				R
	<u>PRECAST CONCRETE</u>				
	<u>(CPAP WORK GROUP NO. 112)</u>				
	<u>PAVING</u>				
	<u>Approved 110 x 221 x 60mm concrete interlocking paving blocks, laid on 20mm thick river sand bed (elsewhere measured) with dry filler sand swept and vibrated into joints including preparation of ground or filling</u>				
25	Paving laid to falls (LI)	m2	70		
26	Fair cutting (LI)	m	8		
	<u>Precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing</u>				
27	Kerb (SABS 927 fig. 7) 180 x 280mm high with 125mm haunching one side including continuous concrete (25MPa/19mm) footing and backing, including excavation, backfilling, etc and cast in situ concrete channel (LI)	m	44		
	<u>MASONRY</u>				
	<u>(CPAP WORK GROUP NO. 116 UNLESS OTHERWISE STATED)</u>				
	<u>BRICKWORK IN FOUNDATIONS</u>				
	<u>(PROVISIONAL)</u>				
	<u>Brickwork of NFX (14Mpa nominal compressive strength) in class II mortar</u>				
28	One brick walls (LI)	m2	5		
	<u>Galvanised brickwork reinforcement</u>				
29	150mm Wide reinforcement built in horizontally (LI)	m	14		
	<u>BRICKWORK IN SUPERSTRUCTURE</u>				
	<u>Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar</u>				
30	One brick walls (LI)	m2	20		
	Carried Forward				R
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	Brought Forward				R
	<u>BRICKWORK SUNDRIES</u>				
	<u>Bagging of 1:3 cement and sand mixture</u>				
31	On outer face of inner skin of brick walls including any additional labour required in raising wall in two separate skins and working around wire ties and / or brick reinforcing fabric (LI)	m2	20		
	<u>Galvanised brickwork reinforcement</u>				
32	150mm Wide reinforcement built in horizontally (LI)	m	56		
	<u>FACE BRICKWORK</u>				
	<u>"Corobrik Autumn Wheat Travertine" or other equal and approved face bricks in stretcher bond with concave mortar joints</u>				
33	Extra over brickwork for face brickwork (LI)	m2	20		
	<u>WATERPROOFING</u>				
	<u>(CPAP WORK GROUP NO. 120 UNLESS OTHERWISE STATED)</u>				
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>				
	<u>Two coats bitumen emulsion waterproof coating</u>				
34	On bagged brick walls (LI)	m2	20		
	Carried Forward				R

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Brought Forward

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METALWORK

(CPAP WORK GROUP NO. 136 UNLESS OTHERWISE STATED)

SUNDRY GALVANISED STEELWORK

Hot dipped galvanised washing lines

35 4No. T-post formed of 80mm diameter hollow section, vertical section 2500mm high with hollow section T-piece 1250mm long and welded centrally to vertical post, the T-piece with 4No. 8mm diameter U-piece eyes 35mm long overall welded on, the post epoxy coated finish and set in and including 300 x 300 x 500mm concrete base including necessary excavation, filling, etc.

No 4

Nylon washing lines

36 5mm Diameter nylon washing lines tied taut between wash lines posts (LI)

m 12

PLUMBING AND DRAINAGE

SANITARY PLUMBING

uPVC pipes

37 50mm Pipes

m 4

Extra over uPVC pipes for fittings

38 50mm Bend

No 1

SANITARY FITTINGS

"Franke" or other equal and approved

39 Stainless steel grade 304 fabricated ET101 economy single washtrough, size 542 x 440 x 343mm deep, equipped with fixing lugs including 32mm chromium plated waste union, plug, chain and stay, etc

No 2

Carried Forward

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