

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 SCOPE OF SERVICES

The contractor shall provide for all make-ready services, painting, plumbing, electrical, carpentry, masonry, roofing and civil works for all residences of US Embassy Nairobi Kenya as described in Sections B and C of this contract, and the exhibits in Section J.

B.2 TYPE OF CONTRACT

This is a fixed price indefinite-delivery, indefinite-quantity type contract for make-ready. Orders will be placed by firm, fixed price task orders. The contractor shall furnish services according to task orders issued by the Contracting Officer. Oral task orders may be necessary for emergencies; however, they shall be issued in writing within three days after issuance of the oral instructions. The task orders shall specify the location and type of work requested (see Section B.4.3).

The contract will be for a one-year period from the date of the contract award, with 4 (four) one-year options. For EA effective year of the contract, the U.S. Government guarantees a minimum order of 20 houses worth of services. The maximum amount of services ordered under EA year of the contract will not exceed 150 houses worth of services.

3 PRICES/COSTS

The prices will include all work, including furnishing all labor, materials, equipment and services, unless otherwise specified in Section B.4.4. The prices listed below shall include all labor, materials, direct and indirect costs, insurance (see FAR 52.228-4 and 52.228-5), overhead, and profit.

B.3.1 VALUE ADDED TAX

VALUE ADDED TAX. Value Added Tax (VAT) is Not applicable to this contract and shall Not be included in the CLIN rates or Invoices because the U.S. Embassy has a tax exemption certificate from the host government.

B.3.2 CURRENCY

| Local offerors shall offer in local currency.

The prices are stated in..... currency (offeror insert currency type.)

B.3.3 BASE YEAR PRICES (starting on the date stated in the Notice to Proceed and continuing for a period of 12 months)

CLIN	Description of Service	Unit of Measure	Unit Price	Estimated Quantity	Total Estimated Price
	PAINTING SECTION (See C.2.1)				
1.	Scrape off all old paint, repair plaster, prime and smooth surface, apply one coat of interior primer or under-coat paint on walls	SM		1000	
2.	Apply two finishing coats of silk vinyl paint on interior walls (first quality crown paints or equal) color as instructed	SM		1000	
3.	Apply two finishing coats of gloss paint on interior walls (first quality crown paints or equal) color soft white	SM		600	
4.	Scrap off old paint from ceiling and apply one coat of primer/under-coat.	SM		200	
5.	Apply two finishing coats of white emulsion (first quality paint from crown) to the ceiling	SM		200	
6.	Prepare and apply two coats of polyurethane varnish, to T&G surfaces (matt)	SM		300	
7.	Prepare and apply two finishing coats of first grade polyurethane varnish to T&G surface	SM		300	
8.	Scrape off all old paint prime from exterior and apply one coat of primer and at least two coats of emulsion paint	SM		600	
9.	Prepare and apply two coats of exterior super gloss first quality from crown paints or equal enamel	SM		500	
10.	Prepare surface, paint trim/baseboards, two coats using (lead-free) paint gloss finish (first quality crown paints or equal)	SM		600	
11.	Vanish trim/baseboards, two coats, polyurethane/matt finish paint	LM		600	
12.	Paint damaged surfaces (resin or plastic-based paint/penetrating primer or equal)	SM		600	
13.	Varnish/shellac (epoxy) of woodwork, following	SM		600	

	surface preparation polyurethane/matt finish				
14.	Varnish woodwork, following surface preparation 2-pack finish	SM		600	
15.	Prepare surface and install wallpaper	SM		200	
16.	Undertake minor repair/replace loose wooden floor parquet	SM		300	
17.	Machine sand wooden floors and apply three coats of polyurethane finish	SM		300	
18.	Machine sand wooden floors and apply three coats of matt finish	SM		300	
19.	Undertake surface preparation and apply textured coating	SM		200	
20.	Paint textured surfaces, one coat (emulsion/gloss; spray application including floor coverings, etc.)	SM		250	
21.	Prepare surface and apply ceiling texture (spray application including floor coverings, etc.)	SM		250	
22.	Prepare all internal grill work including safe heaven door, casement windows and doors and apply at least two coats of matt finish paint	SM		50	
23.	Prepare all internal grill work including safe heaven door, casement windows, and doors and apply at least two coats of gloss paint	SM		50	
24.	Prepare and apply two coats of terracotta paint on the chimney surface	SM		100	
25.	Scrap and apply at least two coats of floor paint	SM		300	
26.	Prepare and apply at least two coats of terracotta paint on the exterior walls	SM		500	
	TOTAL PAINTING SECTION				
	PLUMBING SECTION (See C.2.5)				
27.	Check and test all plumbing fixtures and snake-out all interior drain lines including humidifier drain line	EA		1	
28.	Replace PPR pipe, w/pipe fitting, 1/2" dia	LM		50	
29.	Replace PPR pipe, w/pipe fitting, 3/4" dia	LM		50	
30.	Replace PPR pipe, w/pipe fitting, 1" dia	LM		50	
31.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
32.	Replace galv. Steel pipe, w/pipe fitting, 3/4" dia	LM		25	
33.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
34.	Replace stand pipe and faucet with pegler or its equivalent bronze, 1/2" dia	EA		5	
35.	Replace stand pipe and faucet with pegler or its	EA		5	

	equivalent bronze, 3/4" dia				
36.	Replace kitchen double sink faucet w/swing flexible wand style spout, American Standard 1802 or equivalent	SET		2	
37.	Replace kitchen sink, double bowl, stamped construction, burnished stainless steel finish	SET		2	
38.	Replace kitchen sink rinse sprayer w/hose	EA		2	
39.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
40.	Replace bottle trap for kitchen sink, 1- 1/2" (plastic)	EA		2	
41.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
42.	Replace bottle trap for kitchen sink, 1-1/2" (plastic)	EA		2	
43.	Replace kitchen sink strainer 4" opening	EA		2	
44.	Replace kitchen sink strainer 3" opening	EA		2	
45.	Replace kitchen sink drain line Non-metallic, 1-1/2" dia w/adapter	LM		2	
46.	Replace kitchen sink drain line metallic, 1-1/2" dia w/adapter	LM		2	
47.	Replace bathroom sink with swing flexible, with wand lever type faucet, water & drain line connection with American Standard 1802 or equal	SET		4	
48.	Replace dhobi sink faucet with swing flexible with one style spout (American Standard 1802 or equal)	SET		2	
49.	Replace bathroom sink with Daelim KL 237 or equal	EA		4	
50.	Replace toilet, V.C. elongated type with low tank Water & drain line connection with Daelim CC 303 or equal	SET		4	
51.	Replace toilet seat with slow closing cover	EA		4	
52.	Replace shower head and mixing valve assembly including water line connection (cobra or equivalent)	SET		4	
53.	Replace shower mixer (cobra or equivalent)	EA		4	
54.	Replace shower head 1-1/2" (cobra or equivalent)	EA		4	
55.	Replace cold water line, PPR piping, with fittings and 1" hanger	LM		4	
56.	Replace cold water line, PPR piping, with fittings and 3/4" hanger	LM		20	
57.	Replace cold water line, PPR piping, with fittings and 1/2" hanger	LM		20	
58.	Replace hot water line, GI fittings and 1/2" hanger	LM		10	
59.	Replace hot water line, GI fittings and 3/4" hanger	LM		10	
60.	Replace hot water line, GI fittings and 1" hanger	LM		10	
61.	Replace drain and sewer piping with 2" composite fittings	LM		20	

62.	Replace drain and sewer piping with 6" composite fittings	LM		20	
63.	Replace 60"x32" enameled cast iron bath tub with shower set and mixing water faucet including water and drain line connection with Bette Form 3620 or equivalent	SET		4	
64.	Remove and reinstall bath tub and clean out drain and properly connect bathtub drain after leak repair and undertake the necessary associated surface adjustments	EA		4	
65.	Replace floor drain 4" dia	EA		4	
66.	Replace floor drain 6" dia	EA		4	
67.	Replace clean out 4" dia	EA		4	
68.	Replace clean out 6" dia	EA		4	
69.	Supply and install shower cubical enclosure with tempered glass panel (1400 mm x 1400 mm x 2150 mm)	SET		4	
70.	Supply and install chrome plated toilet roll holder (wall mounted)	EA		4	
71.	Supply and install chrome plated soap holder (wall mounted)	EA		4	
72.	Supply and install chrome plated (wall mounted) 600 mm towel holder	EA		4	
73.	Supply and install two fold advent wash basin and pedestal	EA		4	
74.	Supply and install basin mixture (make; Bricon or equivalent)	EA			
75.	Supply and install low level ceramic cistern and associated fittings	EA		4	
76.	Supply and install squatting WC pan (Twyford)	EA		2	
77.	Supply and install dhobi sink (410 mm x 510 mm by 610 mm)	EA		2	
78.	Supply and install 406 mm diameter round sink (stainless steel)	EA		2	
79.	Supply and install rectangular sink of 1000 mm x 500 mm single bowl single drain (stainless steel)	EA		2	
80.	Supply and install rectangular sink of 1450 mm x 520 mm single bowl double drain (stainless steel)	EA		2	
81.	Supply and install rectangular sink of 200 mm x 500 mm single bowl double drain (stainless steel)	EA		2	
82.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (2 feet)	EA		4	
83.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (6 feet)	EA		4	

84.	Supply and install Twyford clifton urinal range consisting of: cistern, pipework, urinal poll waste and divider	EA		4	
85.	Supply and install solar water heater 300L capacity complete with installation kit	EA		4	
86.	Supply and install solar water heater 200L capacity complete with installation kit	EA		4	
87.	Supply and replace solar heater booster element (3KW) complete with the thermostat	EA		2	
88.	Supply and replace solar heater booster element (1.5KW) complete with the thermostat	EA		2	
89.	Supply and install uPVC water tank 24000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
90.	Supply and install uPVC water tank 10000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
91.	Supply and install uPVC water tank 5000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
92.	Supply and install composite man-hole covers (450 by 600) heavy duty	EA		5	
93.	Supply and install pressure release valve 6 bars	EA		4	
94.	Supply and install BMST 7 water heater thermostats	EA		6	
95.	Replace basket strainer 4"	EA		4	
96.	Replace basket strainer 6"	EA		4	
97.	Supply and install 1.5KW emersion heater	No.		6	
98.	Supply and install 2.0KW emersion heater	No.		6	
99.	Supply and install 3.0KW emersion heater	No.		6	
100.	Supply and install hot water tank of 40gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
101.	Supply and install hot water tank of 30gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
102.	Supply and install hot water tank of 20gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
103.	Supply and install hot water tank of 15gal complete with BMST thermostat, Pressure Temperature	EA		2	

	relief valve, pipe work, associated fittings as per provided SOW				
	TOTAL PLUMBING				
	ELECTRICAL SECTION (See C.2.4)				
104.	Supply and replace enclosed consumer unit complete with all applicable protection devices (6 – way) (Crabtree or equivalent)	EA		2	
105.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 9 way (Crabtree or equivalent)	EA		2	
106.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 12 way (Crabtree or equivalent)	EA		2	
107.	Supply and install a 3 phase 415V, 100Amps DFB complete with all applicable protection devices (Crabtree or equivalent)	EA		1	
108.	Replace earth electrode bare copper 5ft and 7ft AWG	LM		2	
109.	Supply and replace grounding wire bare copper 4 mm -6 mm AWG	M		20	
110.	Supply and replace fluorescent light fixture, 2ft, 240V, 20W (diffused)	EA		10	
111.	Supply and replace hallway/bedroom light fixture (full moon or 2D – 28wt or its equivalent)	EA		12	
112.	Supply and replace diffused fluorescent light fixture, 1/100 watt, weather proof	EA		10	
113.	Installation of flood light fixture (fixture will be furnished by government)	EA		12	
114.	Supply and install 240V, 6-arm dining room chandelier with lights	EA		2	
115.	Replace enclosed light fixture (2D 16 W) or its equivalent	EA		12	
116.	Replace bathroom vanity light	EA		4	
117.	Installation of recessed fluorescent light fixture in the kitchen	EA		2	
118.	Replace GFCI 10mA x 240V socket outlet	EA		15	
119.	Replace GFCI 10mA x 240V circuit breaker	EA		15	

120.	Supply and replace doorbell 5Ax240V	EA		1	
121.	Supply and install wireless doorbell (battery operated)	EA		1	
122.	Supply and replace dimmer switch, 600 watt for incandescent light (GFP)	EA		6	
123.	Replace buzzer DC 6V with chime bell, AC 100V (GFP)	EA		1	
124.	Supply and install PVC adapter boxes, 4" SQ	EA		20	
125.	Supply and install PVC adapter boxes, 2"x4"	EA		20	
126.	Replace flexible conduit pipe 20mm diameter	LM		50	
127.	Replace flexible conduit pipe 25mm diameter	LM		50	
128.	Replace flexible conduit pipe 32mm diameter	LM		50	
129.	Supply and replace double pole integral switches 100A	EA		2	
130.	Supply and replace double pole integral switches 60A	EA		2	
131.	Replace programmable thermostat for heating and cooling (GFP)	EA		2	
132.	Supply and install single core PVC unsheathed cables 1.5mm (East Africa cables or equivalent)	LM		30	
133.	Supply and install single core PVC unsheathed cables 2.5mm (East Africa cables or equivalent)	LM		30	
134.	Supply and install single core PVC unsheathed cables 4.0mm (East Africa cables or equivalent)	LM		30	
135.	Supply and install single core PVC unsheathed cables 6.0mm (East Africa cables or equivalent)	LM		30	
136.	Supply and install single core PVC unsheathed cables 10mm (East Africa cables or equivalent)	LM		30	
137.	Supply and install single core PVC unsheathed cables 16mm (East Africa cables or equivalent)	LM		30	
138.	Supply and install three core 1.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
139.	Supply and install three core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
140.	Supply and install four core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
141.	Supply and install four core 6mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
142.	Supply and install four core 10mm still armored cable unbraided cable	LM		25	

143.	Supply and install four core 16mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
144.	Supply and install four core 125mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		10	
145.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (20 mm)	LM		25	
146.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (25 mm)	LM		25	
147.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (32 mm)	LM		25	
148.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (20 mm)	LM		25	
149.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories.(25 mm)	LM		25	
150.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (32 mm)	LM		25	
151.	Supply and replace 1 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
152.	Supply and replace 2 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
153.	Supply and replace 3 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
154.	Supply and replace 4 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
155.	Supply and replace 1 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
156.	Supply and replace 2 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
157.	Supply and replace 3 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
158.	Supply and replace 4 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
159.	Remove/reinstall existing electric outlets (sockets)	EA		5	
160.	Replace enclose circuit breakers 10A, 20A, 30A, 40A, 60A in existing panel board	EA		5	
161.	Supply and install single socket 13A (ordinary)	EA		5	

162.	Supply and install twin socket 13A (ordinary)	EA		5	
163.	Supply and install single socket 15A (ordinary)	EA		5	
164.	Supply and install 13A metal clad sockets	EA		5	
165.	Supply and install 15A metal clad sockets	EA		5	
166.	Supply and install twin socket 13A metallic	EA		5	
167.	Supply and install wall light fixtures (half-moon)	EA		10	
168.	Clean the diffusers for all the light fixtures	EA		10	
169.	Supply and install ceiling fan 4-5 blades (hunters or equivalent 240V-50HZ)	EA		4	
170.	Supply and install flat plate DP switch (45ADP cooker unit with neon) Crabtree or equivalent	EA		2	
171.	Supply and install 6WX240V decoster bulbs (warm white)	EA		24	
172.	Supply and install 24 hr. timer 240V 50HZ	EA		2	
173.	Supply and install photo cell fitting 240V,10A	EA		2	
174.	Supply and install exhaust fan (240V/50HZ, 200 mm dia.)	SM		4	
175.	Supply and install exhaust fan (250V/50HZ, 200 mm dia.)	SM		4	
176.	Replace residential type range hood, including exhaust fan, 160 CFM, 1/8HP, 42"L x18"W x 6"H (GFP)	EA		1	
	TOTAL ELECTRICAL				
	CARPENTRY SECTION (See C.2.7)				
177.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, two coats of paint (9 mm board)	SM		200	
178.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, filler work, surface preparation and three coats of paint on a 12 mm board	SM		200	
179.	Supply and install suspended ceiling wood or metal support frame for drop ceiling complete with galvanized annealed iron suspension and other associated fasteners	LM		300	
180.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – smooth	SM		200	
181.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – coarse	SM		50	
182.	Supply and install wood blundering 50mm x 50mm thick spaced 600 mm c/c seasoned soft wood	LM		50	

183.	Replace CMU wall cracks-chip off, 1" thick v-joint and seal w/mortar to match existing wall	LM		100	
184.	Replace 1" x 4" wood baseboard (seasoned hard wood) and prepare surface for painting or varnishing as applicable	LM		100	
185.	Replace 1" x 4" wood baseboard (seasoned soft wood) and prepare surface for painting or varnishing as applicable	LM		100	
186.	Replace vinyl cove base, 4" to 6" high	LM		50	
187.	Replace ceiling cornices (wooden)	LM		200	
188.	Replace ceiling cornices (PVC)	LM		200	
189.	Fabricate and install mahogany 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screens	SM		20	
190.	Fabricate and install sliding aluminum frames 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screen	SM		20	
191.	Replace worn out aluminum insect screens on wooden frame	SM		20	
192.	Replace worn out aluminum insect screens on aluminum frame	SM		20	
193.	Replace vinyl composition tile floor, 12"x12"x1/8" thick	SM		100	
194.	Repair metal garden gates , approx. 3ft x 5ft	EA		1	
195.	Replace metal garden gates , approx. 3ft x 5ft	EA		1	
196.	Supply and replace 50 mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall	EA		4	
197.	Supply and replace 50mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall mahogany veneered both sides	EA		4	
198.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1500 mm x 2060 mm high	EA		4	
199.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1820 mm x 2060 mm high	EA		4	
200.	Supply and replace 50 mm thick solid cored ordinary flush door shatter size 1820 mm x 2060 mm high	EA		4	
201.	Supply and replace 50 mm thick solid cored ordinary flush door mahogany veneered size 1820 mm x 2060 mm high	EA		4	
202.	Supply and install 50 mm thick mahogany door	EA		4	

	leaf size 820 mm x 2060 mm overall with fielded raised panels				
203.	Supply and install 50 mm thick mvule door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
204.	Supply and install 100 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
205.	Supply and install 150 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
206.	Supply and install 200 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
207.	Supply and install 100 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
208.	Supply and install 150 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
209.	Supply and install 200 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
210.	Supply and install 50 x 25 mm architrave	LM		20	
211.	Supply and install 15 mm quadrants	LM		15	
212.	Replace low profile aluminum threshold , 4"-6"	EA		10	
213.	Supply and install absolute black double beveled threshold 4"-6" x 36" x 5/8" beveled sides and top polished	EA		10	
214.	Replace door stopper and holder	EA		5	
215.	Supply and install door closer heavy duty CUSH-N- STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
216.	Supply and install door closer residential duty CUSH-N-STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
217.	Supply and replace mortise door lockset (2 lever)	EA		5	
218.	Supply and replace mortise door lockset (3 lever)	EA		5	
219.	Supply and replace mortise door lockset (4 lever)	EA		5	
220.	Supply and replace mortise door lockset (5 lever)	EA		5	
221.	Supply and install steel door locks union or equivalent (3 lever)	EA		5	
222.	Supply and install rim lock (viro or equivalent)	EA		5	
223.	Supply and install 4 lever cupboard lock union or equivalent	EA		10	
224.	Supply and install cylinder night latch	EA		2	
225.	Supply and install 3 lever sliding door lock	EA		5	
226.	Duplicate key (Yale)	EA		10	
227.	Duplicate key (Union Mortise)	EA		10	
228.	Duplicate key (Double bitted key)	EA		5	

229.	Supply and install lockset for interior door with keyless type	EA		5	
230.	Replace hinge butt, 4" (pressed steel)	PR		16	
231.	Replace hinge butt, 4" (aluminum)	PR		16	
232.	Replace hinge butt, 4" (bronze)	PR		16	
233.	Replace hinge butt, 4" (steel)	PR		16	
234.	Replace hinge butt, 5" (pressed steel)	PR		16	
235.	Replace hinge butt, 5" (aluminum)	PR		16	
236.	Replace hinge butt, 5" (bronze)	PR		16	
237.	Replace hinge butt, 5" (steel)	PR		16	
238.	Replace hinge butt, 3" (pressed steel)	PR		16	
239.	Replace hinge butt, 3" (aluminum)	PR		16	
240.	Replace hinge butt, 3" (bronze)	PR		16	
241.	Replace hinge butt, 3" (steel)	PR		16	
242.	Supply and install door sweeper	LM		10	
243.	Supply and install malpa hinges	EA		20	
244.	Supply and install piano hinges	LM			
245.	Supply and install low level (base) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, drawers, hardware, doors and toe kick. Face made of high quality solid wood, well-seasoned mvule/mahogany; interiors made of block board	SM		15	
246.	Supply and install high level (wall) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, hardware, and doors. Face made of high quality solid wood, well-seasoned mvule/mahogany. Interiors made of block board	SM		15	
247.	Supply and replace closet door ball catcher	EA		20	
248.	Supply and install window clear glass 5 mm thick	SM		10	
249.	Supply and install frosted window glass (5 mm thick)	SM		10	
250.	Supply and install translucent window glass (5 mm thick)	SM		5	
251.	Supply and replace window fastener (brass) pairs	EA		12	
252.	Supply and replace window stay (brass) pairs	EA		12	
253.	Replace stainless steel (SST) shower curtain/closet rod, 1" dia including accessories	LM		10	
254.	Replace stainless steel (SST) shower curtain/closet rod, 3/4" dia including accessories	LM		10	
255.	Replace stainless steel robe hook	EA		12	
256.	Replace brass robe hook	EA		12	
257.	Replace stainless steel grab bar (1 inch diameter) complete with accessories	LM		12	
258.	Replace vanity cabinet incl. 700 mm W x 490 mm	EA		4	

	D x 760 mm H				
259.	Replace medicine cabinet SAJM3207 approximately (150 mm x 600 mm x 600) with internal and external mirrors	EA		2	
260.	Supply and install 12 mm thick wood blocks mahogany	SM		20	
261.	Supply and install 12 mm thick wood blocks cyprus	SM		20	
262.	Supply and install 12 mm thick wood blackwood center square	SM		20	
263.	supply and install T&G ceiling from cyprus	SM		100	
264.	Supply and install brass tower bolt (50 mm)	EA		12	
265.	Supply and install brass tower bolt (75 mm)	EA		12	
266.	Supply and install brass tower bolt (100 mm)	EA		12	
267.	Supply and install brass tower bolt (150 mm)	EA		12	
268.	Supply and install brass tower bolt (200 mm)	EA		12	
269.	Supply and install aluminum tower bolt (50 mm)	EA		12	
270.	Supply and install aluminum tower bolt (75 mm)	EA		12	
271.	Supply and install aluminum tower bolt (100 mm)	EA		12	
272.	Supply and install aluminum tower bolt (150 mm)	EA		12	
273.	Supply and install aluminum tower bolt (200 mm)	EA		12	
274.	Supply and install 25 mm thick plain block board	SM		12	
275.	Supply and install 25mm thick block board mahogany veneered one side	SM		14.4	
276.	Supply and install 25mm thick block board mahogany veneered both sides	SM		14.4	
277.	Provide and install shoring on a shown location	SM		100	
278.	Supply and install hoarding on a shown location	SM		100	
279.	Supply and install 6 mm plywood	SM		14.4	
280.	Supply and install 1.6 mm plain color "formica sheeting"	SM		14.4	
281.	Supply and install 18 mm MDF boards	SM		14.4	
282.	Supply and install 3 mm thick MDF board	SM		14.4	
283.	Supply and install 6 mm thick MDF board	SM		14.4	
284.	Supply and install 4 mm clear mirrors	SM		2.88	
285.	Supply and install 5 mm polished plate glass mirror	SM		2.88	
286.	Supply and install 6 mm polished plate glass mirror	SM		2.88	
287.	Supply and install 5 mm bronze mirror	SM		2.88	
288.	Supply and install 600 mm x 450 mm x 6 mm thick polished plate glass mirror with beveled and smoothed edges and drilled four times for and including fixing to plugged wall or timber with mild steel screws and dome shaped chromium plated screw covers	No.		4	

289.	Supply and install 5 mm polished plate glass one way mirror	SM		4	
290.	Supply and install 5 mm thick x 150 mm wide louvre blades with polished edges clear sheet	LM		40	
291.	Supply and install 200 x 20 mm fascia board including 3 coats of emulsion paint	LM		40	
	TOTAL CARPENTRY				
	MASONRY (See C.2.9)				
292.	Repair cracks concrete stoop-chip off 1" wide v-joint 7 seal with cement grout	LM		20	
293.	Construct wall, 8" thick	SM		100	
294.	Construct wall, 4" thick	SM		100	
295.	Construct red brick wall, 8" thick	SM		100	
296.	Supply and install counter granite 20 mm thick by 600 mm wide (black galaxy)	LM		100	
297.	Supply and install counter granite 20 mm thick by 600 mm wide (red)	LM		10	
298.	Supply and install counter granite 20 mm thick by 600 mm white (platinum white)	LM		10	
299.	Supply and install counter granite 20 mm thick by 600 mm wide (galaxy white)	LM		10	
300.	Supply and install counter granite 20 mm thick by 600 mm wide (absolute black)	LM		10	
301.	Supply and install counter granite 20 mm thick by 600 mm wide (China pink)	LM		10	
302.	Supply and install counter granite 20 mm thick by 600 mm wide (golden pearl)	LM		10	
303.	Supply and install counter granite 20 mm thick by 600 mm wide (paradiso)	LM		10	
304.	Supply and install ceramic floor tiles 300 x 300 mm	SM		200	
305.	Supply and install Non-skid porcelain floor tiles 600 x 600 mm	SM		200	
306.	Supply and install granito floor tiles 600 x 600 mm	SM		200	
307.	Supply and install ceramic wall tiles 300 x 300 mm	SM		250	
308.	Supply and install Non-skid porcelain wall tiles 600 x 600	SM		300	
309.	Supply and install granito wall tiles 600 x 600 mm	SM		100	
310.	Supply and install mosaic tiles	SM		100	
311.	Supply and install mazeras cladding (cut)	SM		300	
312.	Supply and install mazeras cladding (natural edges)	SM		300	

313.	Supply specialized labor for general work including demolition, cart away, construction, trenching, painting, caulking	HRS		80	
314.	Clean entire height of chimney with purpose made tools/brushes before internal work is done. Ensure fire place is temporarily closed off to prevent soot entering the house	EA		1	
315.	Replace caulking for bathrooms and kitchen	LM		200	
316.	Install clients supplied tiles	SM		100	
317.	Undertake wire brushing to stone walling	SM		400	
318.	Undertake sandblasting to surfaces of concrete walls/columns or beams	SM		200	
319.	Construct plaster work 15 mm thick two coat cement sand (1:4) plaster trowelled smooth and comprising 12 mm backing and 3 mm fishing coat	SM		100	
320.	Construct 15 mm thick cement sand (1:3) backing plaster to walls to receive tiling	SM		100	
	TOTAL MASONRY				
	ROOFING SECTION (See C.2.6)				
321.	Repair and replace leaky roof including membrane and wood (clay roof tiles)	SM		300	
322.	Replace old rain gutter and downspout PVC	LM		30	
323.	Replace old rain Galvanized gutters	LM		30	
324.	Supply and install bituminous roofing felts 3-layer felt (14:14:38 kg/10 m) with mineral surface	SM		300	
325.	Supply and install bituminous 200 mm flashing	LM		50	
326.	Supply and install waterproofing rain base osmotic waterproofing for concrete (as per Italbuild imports)	SM		200	
327.	Supply and install waterproofing rain block osmotic waterproofing for concrete (as per Italbuild imports)	LM		100	
328.	Supply and install waterproofing rain Elastic Extra "E" – acrylic liquid membrane for general w/p (as per Italbuild imports)	SM		200	
329.	Supply and install sirrah P GR 4kg/sm APP bituminous membrane (as per Italbuild imports)	SM		200	
330.	Supply and install sirrah P GR 5kg/sm APP bituminous membrane (as per Italbuild imports)	SM		200	
331.	Supply and install tefond plus – high density polyethylene membrane (as per italbuild imports)	SM		200	

332.	Supply and install guttafo N 140 under layer for tiled roofs (as per Italbuild imports)	SM		200	
333.	Supply and install guttafo N 160 under layer for tiled roofs (as per Italbuild imports)	SM		200	
334.	Supply and install flat roofing finishes Sirrah P GR 4kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
335.	Supply and install flat roofing finishes Sirrah P GR 5kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
336.	Supply and install pre-painted GI and alu-zinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 22G	SM		300	
337.	Supply and install pre-painted GI and aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 24G	SM		300	
338.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 26G	SM		300	
339.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 28G	SM		200	
340.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 30G	SM		250	
341.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 32G	SM		250	
342.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 22 g	SM		250	
343.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 24 g	SM		250	
344.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 26 g	SM		250	
345.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 28 g	SM		250	
346.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 30 g	SM		250	

347.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 32 g	SM		250	
348.	supply and install plain sheets 960 mm wide 22 gauge	SM		300	
349.	supply and install plain sheets 960 mm wide 24 gauge	SM		300	
350.	supply and install plain sheets 960 mm wide 26 gauge	SM		300	
351.	supply and install plain sheets 960 mm wide 28 gauge	SM		300	
352.	supply and install plain sheets 960 mm wide 30 gauge	SM		300	
353.	Supply and install mini-corrugation-mc 699 30 gauge	SM		300	
354.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 25 mm	SM		300	
355.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 40 mm	SM		300	
356.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 25 mm mesh	SM		300	
357.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 40 mm mesh	SM		300	
358.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22G x 380 MM	SM		300	
359.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
360.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
361.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22 G X 570mm	LM		50	
362.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
363.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
364.	Supply and install clay roofing tiles interlocking clay tiles size 400 x 250 x 50 mm x 3.1kg/unit	SM		200	
365.	Supply and install Roman clay tiles size 375 x 150 x 66 mm	SM		200	
366.	Supply and install Brosley plain clay tiles size 250 mm x 150 mm x 15 MM	SM		200	

367.	Supply and install Portuguese clay tiles size 41 x 190 x 14 mm	SM		200	
368.	Supply and install slip tiles size 300 x 175 x 50 mm used on mabati sheets	SM		200	
369.	Supply and install Harvey roofing tiles 1700 x 397 mm Elite and Tufftile-Acrylic	SM		200	
370.	Supply and install stone coat	SM		300	
371.	Supply and install Harvey roofing 1700 x 397 mm Romantile, shaketile and academy tile - acrylic stone coat	SM		200	
372.	Supply and install Harvey roofing stone coat	SM		200	
373.	Supply and install dura tile(stone coated) 1690 x 397 mm, Dura tile, Elite 0.45 mm thick	SM		200	
374.	Supply and install dura tile (stone coated) 1710 x 398 mm, Durama tiles, 0.45 mm thick	SM		200	
375.	Supply and install dura tile (stone coated) roll top ridges, 1.8 mts length	LM		50	
376.	Supply and install dura tile accessories 1720 mm Angle Ridge cap	LM		50	
377.	Supply and install dura tile accessories 580 mm angle hip cap	LM		50	
378.	Supply and install dura tile accessories 170 mm cover flashings	LM		50	
379.	Supply and install dura tile accessories 1550 mm barge board covers	LM		50	
380.	Supply and install dura tile accessories 1550 mm side wall flashings	LM		30	
381.	Supply and install UPVC carbon fiber roof sheets as dura roofing products	LM		30	
382.	Supply and install carbon fiber UPVC sheets, 2.0 mm thick	SM		50	
383.	Supply and install carbon fiber UPVC sheets, 2.5 mm thick	SM		50	
384.	Supply and install carbon fiber UPVC sheets, 3.0 mm thick	SM		50	
385.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters	LM		50	
386.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
387.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 24G x 300 mm half round	LM		50	
388.	Supply and install water goods pre-painted 200 mm	LM		50	

	G.I/Alu-zinc gutters 26G x 300 mm half round				
389.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 100 x 75 mm box gutter	LM		50	
390.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
391.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
392.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 80 mm diameter round	LM		20	
393.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm diameter round	LM		20	
394.	Supply and install water goods pre-painted G.I/Alu-zinc 24G x 100 mm diameter round	LM		20	
395.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 100 mm diameter round	LM		20	
396.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box round	LM		20	
397.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 150 mm x 120 mm	LM		50	
398.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 150 mm x 120 mm	LM		50	
399.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box gutter	LM		50	
400.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box round	LM		20	
401.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 100 mm x 75 mm	LM		50	
402.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 100 mm x 75 mm	LM		50	
403.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
404.	Supply and install unpainted 200 mm G.I/Aluzinc gutters 24G x 300 mm half round	LM		50	
405.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 100 mm x 75 mm box gutter	LM		50	
406.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 24G x 100 mm x 75 mm box gutter	LM		50	
407.	Supply and install unpainted 200 mm G.I/Alu-zinc	LM		50	

	gutters 26G x 100 mm x 75 mm box gutter				
408.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
409.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
410.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 80 mm diameter round	LM		20	
411.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 110 mm diameter round	LM		20	
412.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 110 mm diameter round	LM		20	
413.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 110 mm diameter round	LM		20	
414.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box gutter	LM		20	
415.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 120 mm box gutter	LM		20	
416.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 120 mm box gutter	LM		20	
417.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 150 mm x 75 mm box gutter	LM		20	
418.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 75 mm box gutter	LM		20	
419.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 75 mm box gutter	LM		20	
420.	Supply and install plastic rainwater goods gutters 140 mm diameter half round	LM		50	
421.	Supply and install plastic rainwater goods gutters 180 mm diameter half round	LM		50	
422.	Supply and install plastic rainwater goods in gutters of 250 mm diameter half round	LM		50	
423.	Supply and install extra over gutter for click-fit stop end 140 mm diameter	No.		10	
424.	Supply and install extra over gutter for click-fit stop end 180 mm	No.		10	
425.	Supply and install extra over gutter for click-fit stop end 250 mm	No.		10	
426.	Supply and install extra over gutter for click-fit gutter joint union 140 mm diameter	No.		12	
427.	Supply and install extra over gutter for click-fit gutter joint union 180 mm	No.		12	
428.	Supply and install extra over gutter for click-fit gutter joint union 250 mm	No.		12	
429.	Supply and install gutter support brackets 140 mm	No.		24	

430.	Supply and install gutter support brackets 180 mm	No.		24	
431.	Supply and install gutter support brackets 250 mm	No.		24	
432.	Supply and install click fit stop end with running outlet 140 mm x 75 mm	No.		12	
433.	Supply and install click fit stop end with running outlet 180 mm x 110 mm	No.		12	
434.	Supply and install click fit stop end with running outlet 250 mm x 160 mm	No.		12	
435.	Supply and install click fit running outlet 140 mm x 75 mm	No.		12	
436.	Supply and install click fit running outlet 180 mm x 110 mm	No.		12	
437.	Supply and install click fit running outlet 250 mm x 160 mm	No.		12	
438.	Supply and install plastic down pipes 160 mm diameter	No.		12	
439.	Supply and install plastic down pipes 110 mm	No.		10	
440.	Supply and install plastic down pipes 75 mm	No.		10	
441.	Supply and install down pipe shoe 160 mm diameter	No.		10	
442.	Supply and install down pipe shoe 110 mm	No.		10	
443.	Supply and install down pipe shoe 75 mm	No.		10	
444.	Supply and install down pipe bend 160 mm diameter	No.		20	
445.	Supply and install down pipe bend 110 mm	No.		20	
446.	Supply and install down pipe bend 75 mm	No.		20	
447.	Supply and install 2 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
448.	Supply and install 5 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
449.	Supply and install 10 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
450.	Provide scaffolding, set up to a height of maximum 20m and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days.	EA		1	
451.	Provide scaffolding, set up to a height of maximum 6m high and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days	EA		1	

	TOTAL ROOFING				
	CIVIL WORKS				
452.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 300 x 300 mm square	No.		4	
453.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 450 mm square	No.		4	
454.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular	No.		4	
455.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular – double seal	No.		4	
456.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular	No.		4	
457.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular double seal	No.		4	
458.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
459.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square double seal	No.		4	
460.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
461.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 900 mm rectangular with solid cast iron cover	No.		4	
462.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular	No.		4	
463.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular double seal	No.		4	
464.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square	No.		4	
465.	Supply and install rectangular C.I manhole cover	No.		4	

	and frame for sewers heavy duty (grade A) 600 x 600 mm square double seal				
466.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with solid cast iron cover	No.		4	
467.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with concrete fill type cast iron cover	No.		4	
468.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with metal cover	No.		4	
469.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (circular base)	No.		4	
470.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (Sauge base)	No.		4	
471.	Supply and install razor wire 450 mm diameter	LM		30	
472.	Supply and install razor wire 730 mm diameter	LM		30	
473.	Supply and install razor wire 980 mm diameter	LM		30	
474.	Supply and install 100 mm compact marram path	SM		200	
475.	Supply and install 100 mm bed of stone sub-base blinded to receive paving slabs	SM		100	
476.	Supply and install 25 mm thick Hatari tiles in sizes 300 x 150 mm	LM		30	
477.	Supply and install 25 mm thick Hatari tiles in sizes 375 x 150 mm	LM		30	
478.	Supply and install 600 x 600 x 50 mm grey P.C paving slabs on 50 mm bed of sand/quarry dust	SM		100	
479.	Construct road formation and sub base 300 mm thick grade formation in approved imported murrum	SM		100	
480.	Construct road formation and sub base 150 mm murrum or stone sub-base blinded	SM		100	
481.	Construct road formation and sub base 100 mm water – bound macadam	SM		100	
482.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45N/mm ²	SM		100	

483.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45-50N/mm ²	SM		100	
484.	Supply and install pre-cast concrete paving blocks 80mm thick heavy duty (available patterns-quad, interlocking, Uni, hexagonal, E-T, diplomat, Décor, circlestone, lock block) paving blocks with a minimum strength of 49N/mm ²	SM		100	
485.	Construct tarmac layer 25 mm bitumen double seal	SM		100	
486.	Construct tarmac layer 30mm premix bituminous surfacing	SM		100	
487.	Supply and apply bituminous prime coat Mc 30 A4/K170 @0.5liters/M ²	SM		100	
488.	Supply and install 125 x 250 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
489.	Supply and install 125 x 100 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
490.	Supply and install 125 x 250 mm radii kerbs on concrete foundation (M.O.W. Type A)	LM		30	
491.	Supply and install Pre-cast concrete 250 x 450 x 450 mm quadrants	No.		20	
492.	Supply and install Pre-cast concrete 250 x 300 x 300 mm quadrants	No.		20	
493.	Supply and install 125x100 x 900 mm long channels	No.		10	
494.	Supply and install 125x250 mm channels	No.		10	
495.	Supply and install 125x100 mm radii channels	No.		10	
496.	Supply and install 125x250 mm radii channels	No.		10	
497.	Supply and install pre-cast concrete invert block drains 125mm x 250mm x 150mm internal diameter	LM		20	
498.	Supply and install pre-cast concrete invert block drains 190 mm x 330mm x 225mm internal diameter	LM		20	
499.	Supply and install pre-cast concrete invert block drains 760 mm x 355 mm x 300 mm internal diameter	LM		30	
500.	Supply and install pre-cast concrete invert block drains 225 mm x 450 mm x 300 mm internal diameter	LM		30	
501.	Supply and install pre-cast concrete invert block drains 175 mm x 800 mm shallow invert block	LM		30	

	drain (600 mm overall)				
502.	Supply and install pre-cast concrete invert block drains 150 mm x 305 mm (450 mm overall)	LM		30	
503.	Supply and install pre-cast concrete side slabs 75 mm thick x 230 mm wide	LM		30	
	TOTAL CIVIL WORKS				
Base Year Total					

Unit of Measure acronym meaning;-

EA – EA

HRS - Hours

LM – Linear Meter

No. – Number

PR - Pair

SET - A Set of items

SM – Square Meter

B.3.4 FIRST OPTION YEAR PRICES

CLIN	Description of Service	Unit of Measure	Unit Price	Estimated Quantity	Total Estimated Price
	PAINTING SECTION (See C.2.1)				
1.	Scrape off all old paint, repair plaster, prime and smooth surface, apply one coat of interior primer or under-coat paint on walls	SM		1000	
2.	Apply two finishing coats of silk vinyl paint on interior walls (first quality crown paints or equal) color as instructed	SM		1000	
3.	Apply two finishing coats of gloss paint on interior walls (first quality crown paints or equal) color soft white	SM		600	
4.	Scrap off old paint from ceiling and apply one coat of primer/under-coat.	SM		200	
5.	Apply two finishing coats of white emulsion (first quality paint from crown) to the ceiling	SM		200	
6.	Prepare and apply two coats of polyurethane varnish, to T&G surfaces (matt)	SM		300	
7.	Prepare and apply two finishing coats of first grade	SM		300	

	polyurethane varnish to T&G surface				
8.	Scrape off all old paint prime from exterior and apply one coat of primer and at least two coats of emulsion paint	SM		600	
9.	Prepare and apply two coats of exterior super gloss first quality from crown paints or equal enamel	SM		500	
10.	Prepare surface, paint trim/baseboards, two coats using (lead-free) paint gloss finish (first quality crown paints or equal)	SM		600	
11.	Vanish trim/baseboards, two coats, polyurethane/matt finish paint	LM		600	
12.	Paint damaged surfaces (resin or plastic-based paint/penetrating primer or equal)	SM		600	
13.	Varnish/shellac (epoxy) of woodwork, following surface preparation polyurethane/matt finish	SM		600	
14.	Varnish woodwork, following surface preparation 2-pack finish	SM		600	
15.	Prepare surface and install wallpaper	SM		200	
16.	Undertake minor repair/replace loose wooden floor parquet	SM		300	
17.	Machine sand wooden floors and apply three coats of polyurethane finish	SM		300	
18.	Machine sand wooden floors and apply three coats of matt finish	SM		300	
19.	Undertake surface preparation and apply textured coating	SM		200	
20.	Paint textured surfaces, one coat (emulsion/gloss; spray application including floor coverings, etc.)	SM		250	
21.	Prepare surface and apply ceiling texture (spray application including floor coverings, etc.)	SM		250	
22.	Prepare all internal grill work including safe heaven door, casement windows and doors and apply at least two coats of matt finish paint	SM		50	
23.	Prepare all internal grill work including safe heaven door, casement windows, and doors and apply at least two coats of gloss paint	SM		50	
24.	Prepare and apply two coats of terracotta paint on the chimney surface	SM		100	
25.	Scrap and apply at least two coats of floor paint	SM		300	
26.	Prepare and apply at least two coats of terracotta paint on the exterior walls	SM		500	
	TOTAL PAINTING SECTION				

	PLUMBING SECTION (See C.2.5)				
27.	Check and test all plumbing fixtures and snake-out all interior drain lines including humidifier drain line	EA		1	
28.	Replace PPR pipe, w/pipe fitting, 1/2" dia	LM		50	
29.	Replace PPR pipe, w/pipe fitting, 3/4" dia	LM		50	
30.	Replace PPR pipe, w/pipe fitting, 1" dia	LM		50	
31.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
32.	Replace galv. Steel pipe, w/pipe fitting, 3/4" dia	LM		25	
33.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
34.	Replace stand pipe and faucet with pegler or its equivalent bronze, 1/2" dia	EA		5	
35.	Replace stand pipe and faucet with pegler or its equivalent bronze, 3/4" dia	EA		5	
36.	Replace kitchen double sink faucet w/swing flexible wand style spout, American Standard 1802 or equivalent	SET		2	
37.	Replace kitchen sink, double bowl, stamped construction, burnished stainless steel finish	SET		2	
38.	Replace kitchen sink rinse sprayer w/hose	EA		2	
39.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
40.	Replace bottle trap for kitchen sink, 1- 1/2" (plastic)	EA		2	
41.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
42.	Replace bottle trap for kitchen sink, 1-1/2" (plastic)	EA		2	
43.	Replace kitchen sink strainer 4" opening	EA		2	
44.	Replace kitchen sink strainer 3" opening	EA		2	
45.	Replace kitchen sink drain line Non-metallic, 1-1/2" dia w/adapter	LM		2	
46.	Replace kitchen sink drain line metallic, 1-1/2" dia w/adapter	LM		2	
47.	Replace bathroom sink with swing flexible, with wand lever type faucet, water & drain line connection with American Standard 1802 or equal	SET		4	
48.	Replace dhobi sink faucet with swing flexible with one style spout (American Standard 1802 or equal)	SET		2	
49.	Replace bathroom sink with Daelim KL 237 or equal	EA		4	
50.	Replace toilet, V.C. elongated type with low tank Water & drain line connection with Daelim CC 303 or equal	SET		4	
51.	Replace toilet seat with slow closing cover	EA		4	
52.	Replace shower head and mixing valve assembly including water line connection (cobra or	SET		4	

	equivalent)				
53.	Replace shower mixer (cobra or equivalent)	EA		4	
54.	Replace shower head 1-1/2" (cobra or equivalent)	EA		4	
55.	Replace cold water line, PPR piping, with fittings and 1" hanger	LM		4	
56.	Replace cold water line, PPR piping, with fittings and 3/4" hanger	LM		20	
57.	Replace cold water line, PPR piping, with fittings and 1/2" hanger	LM		20	
58.	Replace hot water line, GI fittings and 1/2" hanger	LM		10	
59.	Replace hot water line, GI fittings and 3/4" hanger	LM		10	
60.	Replace hot water line, GI fittings and 1" hanger	LM		10	
61.	Replace drain and sewer piping with 2" composite fittings	LM		20	
62.	Replace drain and sewer piping with 6" composite fittings	LM		20	
63.	Replace 60"x32" enameled cast iron bath tub with shower set and mixing water faucet including water and drain line connection with Bette Form 3620 or equivalent	SET		4	
64.	Remove and reinstall bath tub and clean out drain and properly connect bathtub drain after leak repair and undertake the necessary associated surface adjustments	EA		4	
65.	Replace floor drain 4" dia	EA		4	
66.	Replace floor drain 6" dia	EA		4	
67.	Replace clean out 4" dia	EA		4	
68.	Replace clean out 6" dia	EA		4	
69.	Supply and install shower cubical enclosure with tempered glass panel (1400 mm x 1400 mm x 2150 mm)	SET		4	
70.	Supply and install chrome plated toilet roll holder (wall mounted)	EA		4	
71.	Supply and install chrome plated soap holder (wall mounted)	EA		4	
72.	Supply and install chrome plated (wall mounted) 600 mm towel holder	EA		4	
73.	Supply and install two fold advent wash basin and pedestal	EA		4	
74.	Supply and install basin mixture (make; Bricon or equivalent)	EA			
75.	Supply and install low level ceramic cistern and associated fittings	EA		4	
76.	Supply and install squatting WC pan (Twyford)	EA		2	

77.	Supply and install dhobi sink (410 mm x 510 mm by 610 mm)	EA		2	
78.	Supply and install 406 mm diameter round sink (stainless steel)	EA		2	
79.	Supply and install rectangular sink of 1000 mm x 500 mm single bowl single drain (stainless steel)	EA		2	
80.	Supply and install rectangular sink of 1450 mm x 520 mm single bowl double drain (stainless steel)	EA		2	
81.	Supply and install rectangular sink of 200 mm x 500 mm single bowl double drain (stainless steel)	EA		2	
82.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (2 feet)	EA		4	
83.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (6 feet)	EA		4	
84.	Supply and install Twyford clifton urinal range consisting of: cistern, pipework, urinal poll waste and divider	EA		4	
85.	Supply and install solar water heater 300L capacity complete with installation kit	EA		4	
86.	Supply and install solar water heater 200L capacity complete with installation kit	EA		4	
87.	Supply and replace solar heater booster element (3KW) complete with the thermostat	EA		2	
88.	Supply and replace solar heater booster element (1.5KW) complete with the thermostat	EA		2	
89.	Supply and install uPVC water tank 24000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
90.	Supply and install uPVC water tank 10000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
91.	Supply and install uPVC water tank 5000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
92.	Supply and install composite man-hole covers (450 by 600) heavy duty	EA		5	
93.	Supply and install pressure release valve 6 bars	EA		4	
94.	Supply and install BMST 7 water heater thermostats	EA		6	
95.	Replace basket strainer 4"	EA		4	
96.	Replace basket strainer 6"	EA		4	
97.	Supply and install 1.5KW emersion heater	No.		6	
98.	Supply and install 2.0KW emersion heater	No.		6	
99.	Supply and install 3.0KW emersion heater	No.		6	

100.	Supply and install hot water tank of 40gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
101.	Supply and install hot water tank of 30gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
102.	Supply and install hot water tank of 20gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
103.	Supply and install hot water tank of 15gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
	TOTAL PLUMBING				
	ELECTRICAL SECTION (See C.2.4)				
104.	Supply and replace enclosed consumer unit complete with all applicable protection devices (6 – way) (Crabtree or equivalent)	EA		2	
105.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 9 way (Crabtree or equivalent)	EA		2	
106.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 12 way (Crabtree or equivalent)	EA		2	
107.	Supply and install a 3 phase 415V, 100Amps DFB complete with all applicable protection devices (Crabtree or equivalent)	EA		1	
108.	Replace earth electrode bare copper 5ft and 7ft AWG	LM		2	
109.	Supply and replace grounding wire bare copper 4 mm -6 mm AWG	M		20	
110.	Supply and replace fluorescent light fixture, 2ft, 240V, 20W (diffused)	EA		10	
111.	Supply and replace hallway/bedroom light fixture	EA		12	

	(full moon or 2D – 28wt or its equivalent)				
112.	Supply and replace diffused fluorescent light fixture, 1/100 watt, weather proof	EA		10	
113.	Installation of flood light fixture (fixture will be furnished by government)	EA		12	
114.	Supply and install 240V, 6-arm dining room chandelier with lights	EA		2	
115.	Replace enclosed light fixture (2D 16 W) or its equivalent	EA		12	
116.	Replace bathroom vanity light	EA		4	
117.	Installation of recessed fluorescent light fixture in the kitchen	EA		2	
118.	Replace GFCI 10mA x 240V socket outlet	EA		15	
119.	Replace GFCI 10mA x 240V circuit breaker	EA		15	
120.	Supply and replace doorbell 5Ax240V	EA		1	
121.	Supply and install wireless doorbell (battery operated)	EA		1	
122.	Supply and replace dimmer switch, 600 watt for incandescent light (GFP)	EA		6	
123.	Replace buzzer DC 6V with chime bell, AC 100V (GFP)	EA		1	
124.	Supply and install PVC adapter boxes, 4" SQ	EA		20	
125.	Supply and install PVC adapter boxes, 2"x4"	EA		20	
126.	Replace flexible conduit pipe 20mm diameter	LM		50	
127.	Replace flexible conduit pipe 25mm diameter	LM		50	
128.	Replace flexible conduit pipe 32mm diameter	LM		50	
129.	Supply and replace double pole integral switches 100A	EA		2	
130.	Supply and replace double pole integral switches 60A	EA		2	
131.	Replace programmable thermostat for heating and cooling (GFP)	EA		2	
132.	Supply and install single core PVC unsheathed cables 1.5mm (East Africa cables or equivalent)	LM		30	
133.	Supply and install single core PVC unsheathed cables 2.5mm (East Africa cables or equivalent)	LM		30	
134.	Supply and install single core PVC unsheathed cables 4.0mm (East Africa cables or equivalent)	LM		30	
135.	Supply and install single core PVC unsheathed cables 6.0mm (East Africa cables or equivalent)	LM		30	
136.	Supply and install single core PVC unsheathed cables 10mm (East Africa cables or equivalent)	LM		30	
137.	Supply and install single core PVC unsheathed cables 16mm (East Africa cables or equivalent)	LM		30	

138.	Supply and install three core 1.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
139.	Supply and install three core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
140.	Supply and install four core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
141.	Supply and install four core 6mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
142.	Supply and install four core 10mm still armored cable unbraided cable	LM		25	
143.	Supply and install four core 16mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
144.	Supply and install four core 125mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		10	
145.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (20 mm)	LM		25	
146.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (25 mm)	LM		25	
147.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (32 mm)	LM		25	
148.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (20 mm)	LM		25	
149.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories.(25 mm)	LM		25	
150.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (32 mm)	LM		25	
151.	Supply and replace 1 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
152.	Supply and replace 2 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
153.	Supply and replace 3 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	

154.	Supply and replace 4 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
155.	Supply and replace 1 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
156.	Supply and replace 2 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
157.	Supply and replace 3 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
158.	Supply and replace 4 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
159.	Remove/reinstall existing electric outlets (sockets)	EA		5	
160.	Replace enclose circuit breakers 10A, 20A, 30A, 40A, 60A in existing panel board	EA		5	
161.	Supply and install single socket 13A (ordinary)	EA		5	
162.	Supply and install twin socket 13A (ordinary)	EA		5	
163.	Supply and install single socket 15A (ordinary)	EA		5	
164.	Supply and install 13A metal clad sockets	EA		5	
165.	Supply and install 15A metal clad sockets	EA		5	
166.	Supply and install twin socket 13A metallic	EA		5	
167.	Supply and install wall light fixtures (half-moon)	EA		10	
168.	Clean the diffusers for all the light fixtures	EA		10	
169.	Supply and install ceiling fan 4-5 blades (hunters or equivalent 240V-50HZ)	EA		4	
170.	Supply and install flat plate DP switch (45ADP cooker unit with neon) Crabtree or equivalent	EA		2	
171.	Supply and install 6WX240V decoster bulbs (warm white)	EA		24	
172.	Supply and install 24 hr. timer 240V 50HZ	EA		2	
173.	Supply and install photo cell fitting 240V,10A	EA		2	
174.	Supply and install exhaust fan (240V/50HZ, 200 mm dia.)	SM		4	
175.	Supply and install exhaust fan (250V/50HZ, 200 mm dia.)	SM		4	
176.	Replace residential type range hood, including exhaust fan, 160 CFM, 1/8HP, 42"L x18"W x 6"H (GFP)	EA		1	
	TOTAL ELECTRICAL				
	CARPENTRY SECTION (See C.2.7)				
177.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, two coats of paint (9 mm board)	SM		200	

178.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, filler work, surface preparation and three coats of paint on a 12 mm board	SM		200	
179.	Supply and install suspended ceiling wood or metal support frame for drop ceiling complete with galvanized annealed iron suspension and other associated fasteners	LM		300	
180.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – smooth	SM		200	
181.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – coarse	SM		50	
182.	Supply and install wood blundering 50mm x 50mm thick spaced 600 mm c/c seasoned soft wood	LM		50	
183.	Replace CMU wall cracks-chip off, 1" thick v-joint and seal w/mortar to match existing wall	LM		100	
184.	Replace 1" x 4" wood baseboard (seasoned hard wood) and prepare surface for painting or varnishing as applicable	LM		100	
185.	Replace 1" x 4" wood baseboard (seasoned soft wood) and prepare surface for painting or varnishing as applicable	LM		100	
186.	Replace vinyl cove base, 4" to 6" high	LM		50	
187.	Replace ceiling cornices (wooden)	LM		200	
188.	Replace ceiling cornices (PVC)	LM		200	
189.	Fabricate and install mahogany 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screens	SM		20	
190.	Fabricate and install sliding aluminum frames 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screen	SM		20	
191.	Replace worn out aluminum insect screens on wooden frame	SM		20	
192.	Replace worn out aluminum insect screens on aluminum frame	SM		20	
193.	Replace vinyl composition tile floor, 12"x12"x1/8" thick	SM		100	
194.	Repair metal garden gates , approx. 3ft x 5ft	EA		1	
195.	Replace metal garden gates , approx. 3ft x 5ft	EA		1	
196.	Supply and replace 50 mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall	EA		4	
197.	Supply and replace 50mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall	EA		4	

	mahogany veneered both sides				
198.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1500 mm x 2060 mm high	EA		4	
199.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1820 mm x 2060 mm high	EA		4	
200.	Supply and replace 50 mm thick solid cored ordinary flush door shatter size 1820 mm x 2060 mm high	EA		4	
201.	Supply and replace 50 mm thick solid cored ordinary flush door mahogany veneered size 1820 mm x 2060 mm high	EA		4	
202.	Supply and install 50 mm thick mahogany door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
203.	Supply and install 50 mm thick mvule door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
204.	Supply and install 100 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
205.	Supply and install 150 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
206.	Supply and install 200 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
207.	Supply and install 100 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
208.	Supply and install 150 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
209.	Supply and install 200 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
210.	Supply and install 50 x 25 mm architrave	LM		20	
211.	Supply and install 15 mm quadrants	LM		15	
212.	Replace low profile aluminum threshold , 4"-6"	EA		10	
213.	Supply and install absolute black double beveled threshold 4"-6" x 36" x 5/8" beveled sides and top polished	EA		10	
214.	Replace door stopper and holder	EA		5	
215.	Supply and install door closer heavy duty CUSH-N- STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
216.	Supply and install door closer residential duty CUSH-N-STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	

217.	Supply and replace mortise door lockset (2 lever)	EA		5	
218.	Supply and replace mortise door lockset (3 lever)	EA		5	
219.	Supply and replace mortise door lockset (4 lever)	EA		5	
220.	Supply and replace mortise door lockset (5 lever)	EA		5	
221.	Supply and install steel door locks union or equivalent (3 lever)	EA		5	
222.	Supply and install rim lock (viro or equivalent)	EA		5	
223.	Supply and install 4 lever cupboard lock union or equivalent	EA		10	
224.	Supply and install cylinder night latch	EA		2	
225.	Supply and install 3 lever sliding door lock	EA		5	
226.	Duplicate key (Yale)	EA		10	
227.	Duplicate key (Union Mortise)	EA		10	
228.	Duplicate key (Double bitted key)	EA		5	
229.	Supply and install lockset for interior door with keyless type	EA		5	
230.	Replace hinge butt, 4" (pressed steel)	PR		16	
231.	Replace hinge butt, 4" (aluminum)	PR		16	
232.	Replace hinge butt, 4" (bronze)	PR		16	
233.	Replace hinge butt, 4" (steel)	PR		16	
234.	Replace hinge butt, 5" (pressed steel)	PR		16	
235.	Replace hinge butt, 5" (aluminum)	PR		16	
236.	Replace hinge butt, 5" (bronze)	PR		16	
237.	Replace hinge butt, 5" (steel)	PR		16	
238.	Replace hinge butt, 3" (pressed steel)	PR		16	
239.	Replace hinge butt, 3" (aluminum)	PR		16	
240.	Replace hinge butt, 3" (bronze)	PR		16	
241.	Replace hinge butt, 3" (steel)	PR		16	
242.	Supply and install door sweeper	LM		10	
243.	Supply and install malpa hinges	EA		20	
244.	Supply and install piano hinges	LM			
245.	Supply and install low level (base) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, drawers, hardware, doors and toe kick. Face made of high quality solid wood, well-seasoned mvule/mahogany; interiors made of block board	SM		15	
246.	Supply and install high level (wall) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, hardware, and doors. Face made of high quality solid wood, well-seasoned mvule/mahogany. Interiors made of block board	SM		15	
247.	Supply and replace closet door ball catcher	EA		20	
248.	Supply and install window clear glass 5 mm thick	SM		10	
249.	Supply and install frosted window glass (5 mm	SM		10	

	thick)				
250.	Supply and install translucent window glass (5 mm thick)	SM		5	
251.	Supply and replace window fastener (brass) pairs	EA		12	
252.	Supply and replace window stay (brass) pairs	EA		12	
253.	Replace stainless steel (SST) shower curtain/closet rod, 1" dia including accessories	LM		10	
254.	Replace stainless steel (SST) shower curtain/closet rod, 3/4" dia including accessories	LM		10	
255.	Replace stainless steel robe hook	EA		12	
256.	Replace brass robe hook	EA		12	
257.	Replace stainless steel grab bar (1 inch diameter) complete with accessories	LM		12	
258.	Replace vanity cabinet incl. 700 mm W x 490 mm D x 760 mm H	EA		4	
259.	Replace medicine cabinet SAJM3207 approximately (150 mm x 600 mm x 600) with internal and external mirrors	EA		2	
260.	Supply and install 12 mm thick wood blocks mahogany	SM		20	
261.	Supply and install 12 mm thick wood blocks cyprus	SM		20	
262.	Supply and install 12 mm thick wood blackwood center square	SM		20	
263.	supply and install T&G ceiling from cyprus	SM		100	
264.	Supply and install brass tower bolt (50 mm)	EA		12	
265.	Supply and install brass tower bolt (75 mm)	EA		12	
266.	Supply and install brass tower bolt (100 mm)	EA		12	
267.	Supply and install brass tower bolt (150 mm)	EA		12	
268.	Supply and install brass tower bolt (200 mm)	EA		12	
269.	Supply and install aluminum tower bolt (50 mm)	EA		12	
270.	Supply and install aluminum tower bolt (75 mm)	EA		12	
271.	Supply and install aluminum tower bolt (100 mm)	EA		12	
272.	Supply and install aluminum tower bolt (150 mm)	EA		12	
273.	Supply and install aluminum tower bolt (200 mm)	EA		12	
274.	Supply and install 25 mm thick plain block board	SM		12	
275.	Supply and install 25mm thick block board mahogany veneered one side	SM		14.4	
276.	Supply and install 25mm thick block board mahogany veneered both sides	SM		14.4	
277.	Provide and install shoring on a shown location	SM		100	
278.	Supply and install hoarding on a shown location	SM		100	
279.	Supply and install 6 mm plywood	SM		14.4	
280.	Supply and install 1.6 mm plain color "formica	SM		14.4	

	sheeting''				
281.	Supply and install 18 mm MDF boards	SM		14.4	
282.	Supply and install 3 mm thick MDF board	SM		14.4	
283.	Supply and install 6 mm thick MDF board	SM		14.4	
284.	Supply and install 4 mm clear mirrors	SM		2.88	
285.	Supply and install 5 mm polished plate glass mirror	SM		2.88	
286.	Supply and install 6 mm polished plate glass mirror	SM		2.88	
287.	Supply and install 5 mm bronze mirror	SM		2.88	
288.	Supply and install 600 mm x 450 mm x 6 mm thick polished plate glass mirror with beveled and smoothed edges and drilled four times for and including fixing to plugged wall or timber with mild steel screws and dome shaped chromium plated screw covers	No.		4	
289.	Supply and install 5 mm polished plate glass one way mirror	SM		4	
290.	Supply and install 5 mm thick x 150 mm wide louvre blades with polished edges clear sheet	LM		40	
291.	Supply and install 200 x 20 mm fascia board including 3 coats of emulsion paint	LM		40	
	TOTAL CARPENTRY				
	MASONRY (See C.2.9)				
292.	Repair cracks concrete stoop-chip off 1" wide v-joint 7 seal with cement grout	LM		20	
293.	Construct wall, 8" thick	SM		100	
294.	Construct wall, 4" thick	SM		100	
295.	Construct red brick wall, 8" thick	SM		100	
296.	Supply and install counter granite 20 mm thick by 600 mm wide (black galaxy)	LM		100	
297.	Supply and install counter granite 20 mm thick by 600 mm wide (red)	LM		10	
298.	Supply and install counter granite 20 mm thick by 600 mm white (platinum white)	LM		10	
299.	Supply and install counter granite 20 mm thick by 600 mm wide (galaxy white)	LM		10	
300.	Supply and install counter granite 20 mm thick by 600 mm wide (absolute black)	LM		10	
301.	Supply and install counter granite 20 mm thick by 600 mm wide (China pink)	LM		10	
302.	Supply and install counter granite 20 mm thick by 600 mm wide (golden pearl)	LM		10	

303.	Supply and install counter granite 20 mm thick by 600 mm wide (paradiso)	LM		10	
304.	Supply and install ceramic floor tiles 300 x 300 mm	SM		200	
305.	Supply and install Non-skid porcelain floor tiles 600 x 600 mm	SM		200	
306.	Supply and install granito floor tiles 600 x 600 mm	SM		200	
307.	Supply and install ceramic wall tiles 300 x 300 mm	SM		250	
308.	Supply and install Non-skid porcelain wall tiles 600 x 600	SM		300	
309.	Supply and install granito wall tiles 600 x 600 mm	SM		100	
310.	Supply and install mosaic tiles	SM		100	
311.	Supply and install mazeras cladding (cut)	SM		300	
312.	Supply and install mazeras cladding (natural edges)	SM		300	
313.	Supply specialized labor for general work including demolition, cart away, construction, trenching, painting, caulking	HRS		80	
314.	Clean entire height of chimney with purpose made tools/brushes before internal work is done. Ensure fire place is temporarily closed off to prevent soot entering the house	EA		1	
315.	Replace caulking for bathrooms and kitchen	LM		200	
316.	Install clients supplied tiles	SM		100	
317.	Undertake wire brushing to stone walling	SM		400	
318.	Undertake sandblasting to surfaces of concrete walls/columns or beams	SM		200	
319.	Construct plaster work 15 mm thick two coat cement sand (1:4) plaster trowelled smooth and comprising 12 mm backing and 3 mm fishing coat	SM		100	
320.	Construct 15 mm thick cement sand (1:3) backing plaster to walls to receive tilling	SM		100	
	TOTAL MASONRY				
	ROOFING SECTION (See C.2.6)				
321.	Repair and replace leaky roof including membrane and wood (clay roof tiles)	SM		300	
322.	Replace old rain gutter and downspout PVC	LM		30	
323.	Replace old rain Galvanized gutters	LM		30	
324.	Supply and install bituminous roofing felts 3-layer felt (14:14:38 kg/10 m) with mineral surface	SM		300	
325.	Supply and install bituminous 200 mm flashing	LM		50	
326.	Supply and install waterproofing rain base osmotic	SM		200	

	waterproofing for concrete (as per Italbuid imports)				
327.	Supply and install waterproofing rain block osmotic waterproofing for concrete (as per Italbuid imports)	LM		100	
328.	Supply and install waterproofing rain Elastic Extra “E” – acrylic liquid membrane for general w/p (as per Italbuid imports)	SM		200	
329.	Supply and install sirrah P GR 4kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
330.	Supply and install sirrah P GR 5kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
331.	Supply and install tefond plus – high density polyethylene membrane (as per italbuid imports)	SM		200	
332.	Supply and install guttafo N 140 under layer for tiled roofs (as per Italbuid imports)	SM		200	
333.	Supply and install guttafo N 160 under layer for tiled roofs (as per Italbuid imports)	SM		200	
334.	Supply and install flat roofing finishes Sirrah P GR 4kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
335.	Supply and install flat roofing finishes Sirrah P GR 5kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
336.	Supply and install pre-painted GI and alu-zinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 22G	SM		300	
337.	Supply and install pre-painted GI and aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 24G	SM		300	
338.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 26G	SM		300	
339.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 28G	SM		200	
340.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 30G	SM		250	

341.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 32G	SM		250	
342.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 22 g	SM		250	
343.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 24 g	SM		250	
344.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 26 g	SM		250	
345.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 28 g	SM		250	
346.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 30 g	SM		250	
347.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 32 g	SM		250	
348.	supply and install plain sheets 960 mm wide 22 gauge	SM		300	
349.	supply and install plain sheets 960 mm wide 24 gauge	SM		300	
350.	supply and install plain sheets 960 mm wide 26 gauge	SM		300	
351.	supply and install plain sheets 960 mm wide 28 gauge	SM		300	
352.	supply and install plain sheets 960 mm wide 30 gauge	SM		300	
353.	Supply and install mini-corrugation-mc 699 30 gauge	SM		300	
354.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 25 mm	SM		300	
355.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 40 mm	SM		300	
356.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 25 mm mesh	SM		300	
357.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 40 mm mesh	SM		300	
358.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22G x 380 MM	SM		300	
359.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	

360.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
361.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22 G X 570mm	LM		50	
362.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
363.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
364.	Supply and install clay roofing tiles interlocking clay tiles size 400 x 250 x 50 mm x 3.1kg/unit	SM		200	
365.	Supply and install Roman clay tiles size 375 x 150 x 66 mm	SM		200	
366.	Supply and install Brosley plain clay tiles size 250 mm x 150 mm x 15 MM	SM		200	
367.	Supply and install Portuguese clay tiles size 41 x 190 x 14 mm	SM		200	
368.	Supply and install slip tiles size 300 x 175 x 50 mm used on mabati sheets	SM		200	
369.	Supply and install Harvey roofing tiles 1700 x 397 mm Elite and Tufftile-Acrylic	SM		200	
370.	Supply and install stone coat	SM		300	
371.	Supply and install Harvey roofing 1700 x 397 mm Romantile, shaketile and academy tile - acrylic stone coat	SM		200	
372.	Supply and install Harvey roofing stone coat	SM		200	
373.	Supply and install dura tile(stone coated) 1690 x 397 mm, Dura tile, Elite 0.45 mm thick	SM		200	
374.	Supply and install dura tile (stone coated) 1710 x 398 mm, Durama tiles, 0.45 mm thick	SM		200	
375.	Supply and install dura tile (stone coated) roll top ridges, 1.8 mts length	LM		50	
376.	Supply and install dura tile accessories 1720 mm Angle Ridge cap	LM		50	
377.	Supply and install dura tile accessories 580 mm angle hip cap	LM		50	
378.	Supply and install dura tile accessories 170 mm cover flashings	LM		50	
379.	Supply and install dura tile accessories 1550 mm barge board covers	LM		50	
380.	Supply and install dura tile accessories 1550 mm side wall flashings	LM		30	
381.	Supply and install UPVC carbon fiber roof sheets as dura roofing products	LM		30	
382.	Supply and install carbon fiber UPVC sheets, 2.0	SM		50	

	mm thick				
383.	Supply and install carbon fiber UPVC sheets, 2.5 mm thick	SM		50	
384.	Supply and install carbon fiber UPVC sheets, 3.0 mm thick	SM		50	
385.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters	LM		50	
386.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
387.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 24G x 300 mm half round	LM		50	
388.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 26G x 300 mm half round	LM		50	
389.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 100 x 75 mm box gutter	LM		50	
390.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
391.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
392.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 80 mm diameter round	LM		20	
393.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm diameter round	LM		20	
394.	Supply and install water goods pre-painted G.I/Alu-zinc 24G x 100 mm diameter round	LM		20	
395.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 100 mm diameter round	LM		20	
396.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box round	LM		20	
397.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 150 mm x 120 mm	LM		50	
398.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 150 mm x 120 mm	LM		50	
399.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box gutter	LM		50	
400.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm	LM		20	

	box round				
401.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 100 mm x 75 mm	LM		50	
402.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 100 mm x 75 mm	LM		50	
403.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
404.	Supply and install unpainted 200 mm G.I/Aluzinc gutters 24G x 300 mm half round	LM		50	
405.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 100 mm x 75 mm box gutter	LM		50	
406.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 24G x 100 mm x 75 mm box gutter	LM		50	
407.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 26G x 100 mm x 75 mm box gutter	LM		50	
408.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
409.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
410.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 80 mm diameter round	LM		20	
411.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 110 mm diameter round	LM		20	
412.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 110 mm diameter round	LM		20	
413.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 110 mm diameter round	LM		20	
414.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box gutter	LM		20	
415.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 120 mm box gutter	LM		20	
416.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 120 mm box gutter	LM		20	
417.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 150 mm x 75 mm box gutter	LM		20	
418.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 75 mm box gutter	LM		20	
419.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 75 mm box gutter	LM		20	
420.	Supply and install plastic rainwater goods gutters 140 mm diameter half round	LM		50	
421.	Supply and install plastic rainwater goods gutters 180 mm diameter half round	LM		50	
422.	Supply and install plastic rainwater goods in gutters	LM		50	

	of 250 mm diameter half round				
423.	Supply and install extra over gutter for click-fit stop end 140 mm diameter	No.		10	
424.	Supply and install extra over gutter for click-fit stop end 180 mm	No.		10	
425.	Supply and install extra over gutter for click-fit stop end 250 mm	No.		10	
426.	Supply and install extra over gutter for click-fit gutter joint union 140 mm diameter	No.		12	
427.	Supply and install extra over gutter for click-fit gutter joint union 180 mm	No.		12	
428.	Supply and install extra over gutter for click-fit gutter joint union 250 mm	No.		12	
429.	Supply and install gutter support brackets 140 mm	No.		24	
430.	Supply and install gutter support brackets 180 mm	No.		24	
431.	Supply and install gutter support brackets 250 mm	No.		24	
432.	Supply and install click fit stop end with running outlet 140 mm x 75 mm	No.		12	
433.	Supply and install click fit stop end with running outlet 180 mm x 110 mm	No.		12	
434.	Supply and install click fit stop end with running outlet 250 mm x 160 mm	No.		12	
435.	Supply and install click fit running outlet 140 mm x 75 mm	No.		12	
436.	Supply and install click fit running outlet 180 mm x 110 mm	No.		12	
437.	Supply and install click fit running outlet 250 mm x 160 mm	No.		12	
438.	Supply and install plastic down pipes 160 mm diameter	No.		12	
439.	Supply and install plastic down pipes 110 mm	No.		10	
440.	Supply and install plastic down pipes 75 mm	No.		10	
441.	Supply and install down pipe shoe 160 mm diameter	No.		10	
442.	Supply and install down pipe shoe 110 mm	No.		10	
443.	Supply and install down pipe shoe 75 mm	No.		10	
444.	Supply and install down pipe bend 160 mm diameter	No.		20	
445.	Supply and install down pipe bend 110 mm	No.		20	
446.	Supply and install down pipe bend 75 mm	No.		20	
447.	Supply and install 2 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m ³)	SM		300	
448.	Supply and install 5 mm closed cell polyethylene	SM		300	

	with aluminum foam laminate double reflective foil (40kg/m3)				
449.	Supply and install 10 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
450.	Provide scaffolding, set up to a height of maximum 20m and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days.	EA		1	
451.	Provide scaffolding, set up to a height of maximum 6m high and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days	EA		1	
	TOTAL ROOFING				
	CIVIL WORKS				
452.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 300 x 300 mm square	No.		4	
453.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 450 mm square	No.		4	
454.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular	No.		4	
455.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular – double seal	No.		4	
456.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular	No.		4	
457.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular double seal	No.		4	
458.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
459.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square double seal	No.		4	
460.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	

461.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 900 mm rectangular with solid cast iron cover	No.		4	
462.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular	No.		4	
463.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular double seal	No.		4	
464.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square	No.		4	
465.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square double seal	No.		4	
466.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with solid cast iron cover	No.		4	
467.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with concrete fill type cast iron cover	No.		4	
468.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with metal cover	No.		4	
469.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (circular base)	No.		4	
470.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (Sauge base)	No.		4	
471.	Supply and install razor wire 450 mm diameter	LM		30	
472.	Supply and install razor wire 730 mm diameter	LM		30	
473.	Supply and install razor wire 980 mm diameter	LM		30	
474.	Supply and install 100 mm compact marram path	SM		200	
475.	Supply and install 100 mm bed of stone sub-base blinded to receive paving slabs	SM		100	
476.	Supply and install 25 mm thick Hatari tiles in sizes 300 x 150 mm	LM		30	
477.	Supply and install 25 mm thick Hatari tiles in sizes 375 x 150 mm	LM		30	
478.	Supply and install 600 x 600 x 50 mm grey P.C	SM		100	

	paving slabs on 50 mm bed of sand/quarry dust				
479.	Construct road formation and sub base 300 mm thick grade formation in approved imported murrum	SM		100	
480.	Construct road formation and sub base 150 mm murrum or stone sub-base blinded	SM		100	
481.	Construct road formation and sub base 100 mm water – bound macadam	SM		100	
482.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45N/mm ²	SM		100	
483.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45-50N/mm ²	SM		100	
484.	Supply and install pre-cast concrete paving blocks 80mm thick heavy duty (available patterns-quad, interlocking, Uni, hexagonal, E-T, diplomat, Décor, circlestone, lock block) paving blocks with a minimum strength of 49N/mm ²	SM		100	
485.	Construct tarmac layer 25 mm bitumen double seal	SM		100	
486.	Construct tarmac layer 30mm premix bituminous surfacing	SM		100	
487.	Supply and apply bituminous prime coat Mc 30 A4/K170 @0.5liters/M ²	SM		100	
488.	Supply and install 125 x 250 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
489.	Supply and install 125 x 100 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
490.	Supply and install 125 x 250 mm radii kerbs on concrete foundation (M.O.W. Type A)	LM		30	
491.	Supply and install Pre-cast concrete 250 x 450 x 450 mm quadrants	No.		20	
492.	Supply and install Pre-cast concrete 250 x 300 x 300 mm quadrants	No.		20	
493.	Supply and install 125x100 x 900 mm long channels	No.		10	
494.	Supply and install 125x250 mm channels	No.		10	
495.	Supply and install 125x100 mm radii channels	No.		10	
496.	Supply and install 125x250 mm radii channels	No.		10	
497.	Supply and install pre-cast concrete invert block	LM		20	

	drains 125mm x 250mm x 150mm internal diameter				
498.	Supply and install pre-cast concrete invert block drains 190 mm x 330mm x 225mm internal diameter	LM		20	
499.	Supply and install pre-cast concrete invert block drains 760 mm x 355 mm x 300 mm internal diameter	LM		30	
500.	Supply and install pre-cast concrete invert block drains 225 mm x 450 mm x 300 mm internal diameter	LM		30	
501.	Supply and install pre-cast concrete invert block drains 175 mm x 800 mm shallow invert block drain (600 mm overall)	LM		30	
502.	Supply and install pre-cast concrete invert block drains 150 mm x 305 mm (450 mm overall)	LM		30	
503.	Supply and install pre-cast concrete side slabs 75 mm thick x 230 mm wide	LM		30	
	TOTAL CIVIL WORKS				
First Option year Total					

B.3.5 SECOND OPTION YEAR PRICES

CLIN	Description of Service	Unit of Measure	Unit Price	Estimated Quantity	Total Estimated Price
	PAINTING SECTION (See C.2.1)				
1.	Scrape off all old paint, repair plaster, prime and smooth surface, apply one coat of interior primer or under-coat paint on walls	SM		1000	
2.	Apply two finishing coats of silk vinyl paint on interior walls (first quality crown paints or equal) color as instructed	SM		1000	
3.	Apply two finishing coats of gloss paint on interior walls (first quality crown paints or equal) color soft white	SM		600	
4.	Scrap off old paint from ceiling and apply one coat of primer/under-coat.	SM		200	
5.	Apply two finishing coats of white emulsion (first	SM		200	

	quality paint from crown) to the ceiling				
6.	Prepare and apply two coats of polyurethane varnish, to T&G surfaces (matt)	SM		300	
7.	Prepare and apply two finishing coats of first grade polyurethane varnish to T&G surface	SM		300	
8.	Scrape off all old paint prime from exterior and apply one coat of primer and at least two coats of emulsion paint	SM		600	
9.	Prepare and apply two coats of exterior super gloss first quality from crown paints or equal enamel	SM		500	
10.	Prepare surface, paint trim/baseboards, two coats using (lead-free) paint gloss finish (first quality crown paints or equal)	SM		600	
11.	Vanish trim/baseboards, two coats, polyurethane/matt finish paint	LM		600	
12.	Paint damaged surfaces (resin or plastic-based paint/penetrating primer or equal)	SM		600	
13.	Varnish/shellac (epoxy) of woodwork, following surface preparation polyurethane/matt finish	SM		600	
14.	Varnish woodwork, following surface preparation 2-pack finish	SM		600	
15.	Prepare surface and install wallpaper	SM		200	
16.	Undertake minor repair/replace loose wooden floor parquet	SM		300	
17.	Machine sand wooden floors and apply three coats of polyurethane finish	SM		300	
18.	Machine sand wooden floors and apply three coats of matt finish	SM		300	
19.	Undertake surface preparation and apply textured coating	SM		200	
20.	Paint textured surfaces, one coat (emulsion/gloss; spray application including floor coverings, etc.)	SM		250	
21.	Prepare surface and apply ceiling texture (spray application including floor coverings, etc.)	SM		250	
22.	Prepare all internal grill work including safe heaven door, casement windows and doors and apply at least two coats of matt finish paint	SM		50	
23.	Prepare all internal grill work including safe heaven door, casement windows, and doors and apply at least two coats of gloss paint	SM		50	
24.	Prepare and apply two coats of terracotta paint on the chimney surface	SM		100	
25.	Scrap and apply at least two coats of floor paint	SM		300	
26.	Prepare and apply at least two coats of terracotta	SM		500	

	paint on the exterior walls				
	TOTAL PAINTING SECTION				
	PLUMBING SECTION (See C.2.5)				
27.	Check and test all plumbing fixtures and snake-out all interior drain lines including humidifier drain line	EA		1	
28.	Replace PPR pipe, w/pipe fitting, 1/2" dia	LM		50	
29.	Replace PPR pipe, w/pipe fitting, 3/4" dia	LM		50	
30.	Replace PPR pipe, w/pipe fitting, 1" dia	LM		50	
31.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
32.	Replace galv. Steel pipe, w/pipe fitting, 3/4" dia	LM		25	
33.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
34.	Replace stand pipe and faucet with pegler or its equivalent bronze, 1/2" dia	EA		5	
35.	Replace stand pipe and faucet with pegler or its equivalent bronze, 3/4" dia	EA		5	
36.	Replace kitchen double sink faucet w/swing flexible wand style spout, American Standard 1802 or equivalent	SET		2	
37.	Replace kitchen sink, double bowl, stamped construction, burnished stainless steel finish	SET		2	
38.	Replace kitchen sink rinse sprayer w/hose	EA		2	
39.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
40.	Replace bottle trap for kitchen sink, 1- 1/2" (plastic)	EA		2	
41.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
42.	Replace bottle trap for kitchen sink, 1-1/2" (plastic)	EA		2	
43.	Replace kitchen sink strainer 4" opening	EA		2	
44.	Replace kitchen sink strainer 3" opening	EA		2	
45.	Replace kitchen sink drain line Non-metallic, 1-1/2" dia w/adapter	LM		2	
46.	Replace kitchen sink drain line metallic, 1-1/2" dia w/adapter	LM		2	
47.	Replace bathroom sink with swing flexible, with wand lever type faucet, water & drain line connection with American Standard 1802 or equal	SET		4	
48.	Replace dhobi sink faucet with swing flexible with one style spout (American Standard 1802 or equal)	SET		2	
49.	Replace bathroom sink with Daelim KL 237 or equal	EA		4	
50.	Replace toilet, V.C. elongated type with low tank Water & drain line connection with Daelim CC 303	SET		4	

	or equal				
51.	Replace toilet seat with slow closing cover	EA		4	
52.	Replace shower head and mixing valve assembly including water line connection (cobra or equivalent)	SET		4	
53.	Replace shower mixer (cobra or equivalent)	EA		4	
54.	Replace shower head 1-1/2" (cobra or equivalent)	EA		4	
55.	Replace cold water line, PPR piping, with fittings and 1" hanger	LM		4	
56.	Replace cold water line, PPR piping, with fittings and 3/4" hanger	LM		20	
57.	Replace cold water line, PPR piping, with fittings and 1/2" hanger	LM		20	
58.	Replace hot water line, GI fittings and 1/2" hanger	LM		10	
59.	Replace hot water line, GI fittings and 3/4" hanger	LM		10	
60.	Replace hot water line, GI fittings and 1" hanger	LM		10	
61.	Replace drain and sewer piping with 2" composite fittings	LM		20	
62.	Replace drain and sewer piping with 6" composite fittings	LM		20	
63.	Replace 60"x32" enameled cast iron bath tub with shower set and mixing water faucet including water and drain line connection with Bette Form 3620 or equivalent	SET		4	
64.	Remove and reinstall bath tub and clean out drain and properly connect bathtub drain after leak repair and undertake the necessary associated surface adjustments	EA		4	
65.	Replace floor drain 4" dia	EA		4	
66.	Replace floor drain 6" dia	EA		4	
67.	Replace clean out 4" dia	EA		4	
68.	Replace clean out 6" dia	EA		4	
69.	Supply and install shower cubical enclosure with tempered glass panel (1400 mm x 1400 mm x 2150 mm)	SET		4	
70.	Supply and install chrome plated toilet roll holder (wall mounted)	EA		4	
71.	Supply and install chrome plated soap holder (wall mounted)	EA		4	
72.	Supply and install chrome plated (wall mounted) 600 mm towel holder	EA		4	
73.	Supply and install two fold advent wash basin and pedestal	EA		4	
74.	Supply and install basin mixture (make; Bricon or	EA			

	equivalent)				
75.	Supply and install low level ceramic cistern and associated fittings	EA		4	
76.	Supply and install squatting WC pan (Twyford)	EA		2	
77.	Supply and install dhobi sink (410 mm x 510 mm by 610 mm)	EA		2	
78.	Supply and install 406 mm diameter round sink (stainless steel)	EA		2	
79.	Supply and install rectangular sink of 1000 mm x 500 mm single bowl single drain (stainless steel)	EA		2	
80.	Supply and install rectangular sink of 1450 mm x 520 mm single bowl double drain (stainless steel)	EA		2	
81.	Supply and install rectangular sink of 200 mm x 500 mm single bowl double drain (stainless steel)	EA		2	
82.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (2 feet)	EA		4	
83.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (6 feet)	EA		4	
84.	Supply and install Twyford clifton urinal range consisting of: cistern, pipework, urinal poll waste and divider	EA		4	
85.	Supply and install solar water heater 300L capacity complete with installation kit	EA		4	
86.	Supply and install solar water heater 200L capacity complete with installation kit	EA		4	
87.	Supply and replace solar heater booster element (3KW) complete with the thermostat	EA		2	
88.	Supply and replace solar heater booster element (1.5KW) complete with the thermostat	EA		2	
89.	Supply and install uPVC water tank 24000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
90.	Supply and install uPVC water tank 10000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
91.	Supply and install uPVC water tank 5000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
92.	Supply and install composite man-hole covers (450 by 600) heavy duty	EA		5	
93.	Supply and install pressure release valve 6 bars	EA		4	
94.	Supply and install BMST 7 water heater thermostats	EA		6	
95.	Replace basket strainer 4"	EA		4	

96.	Replace basket strainer 6"	EA		4	
97.	Supply and install 1.5KW emersion heater	No.		6	
98.	Supply and install 2.0KW emersion heater	No.		6	
99.	Supply and install 3.0KW emersion heater	No.		6	
100.	Supply and install hot water tank of 40gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
101.	Supply and install hot water tank of 30gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
102.	Supply and install hot water tank of 20gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
103.	Supply and install hot water tank of 15gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
	TOTAL PLUMBING				
	ELECTRICAL SECTION (See C.2.4)				
104.	Supply and replace enclosed consumer unit complete with all applicable protection devices (6 – way) (Crabtree or equivalent)	EA		2	
105.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 9 way (Crabtree or equivalent)	EA		2	
106.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 12 way (Crabtree or equivalent)	EA		2	
107.	Supply and install a 3 phase 415V, 100Amps DFB complete with all applicable protection devices (Crabtree or equivalent)	EA		1	
108.	Replace earth electrode bare copper 5ft and 7ft AWG	LM		2	
109.	Supply and replace grounding wire bare copper 4	M		20	

	mm -6 mm AWG				
110.	Supply and replace fluorescent light fixture, 2ft, 240V, 20W (diffused)	EA		10	
111.	Supply and replace hallway/bedroom light fixture (full moon or 2D – 28wt or its equivalent)	EA		12	
112.	Supply and replace diffused fluorescent light fixture, 1/100 watt, weather proof	EA		10	
113.	Installation of flood light fixture (fixture will be furnished by government)	EA		12	
114.	Supply and install 240V, 6-arm dining room chandelier with lights	EA		2	
115.	Replace enclosed light fixture (2D 16 W) or its equivalent	EA		12	
116.	Replace bathroom vanity light	EA		4	
117.	Installation of recessed fluorescent light fixture in the kitchen	EA		2	
118.	Replace GFCI 10mA x 240V socket outlet	EA		15	
119.	Replace GFCI 10mA x 240V circuit breaker	EA		15	
120.	Supply and replace doorbell 5Ax240V	EA		1	
121.	Supply and install wireless doorbell (battery operated)	EA		1	
122.	Supply and replace dimmer switch, 600 watt for incandescent light (GFP)	EA		6	
123.	Replace buzzer DC 6V with chime bell, AC 100V (GFP)	EA		1	
124.	Supply and install PVC adapter boxes, 4" SQ	EA		20	
125.	Supply and install PVC adapter boxes, 2"x4"	EA		20	
126.	Replace flexible conduit pipe 20mm diameter	LM		50	
127.	Replace flexible conduit pipe 25mm diameter	LM		50	
128.	Replace flexible conduit pipe 32mm diameter	LM		50	
129.	Supply and replace double pole integral switches 100A	EA		2	
130.	Supply and replace double pole integral switches 60A	EA		2	
131.	Replace programmable thermostat for heating and cooling (GFP)	EA		2	
132.	Supply and install single core PVC unsheathed cables 1.5mm (East Africa cables or equivalent)	LM		30	
133.	Supply and install single core PVC unsheathed cables 2.5mm (East Africa cables or equivalent)	LM		30	
134.	Supply and install single core PVC unsheathed cables 4.0mm (East Africa cables or equivalent)	LM		30	
135.	Supply and install single core PVC unsheathed cables 6.0mm (East Africa cables or equivalent)	LM		30	

136.	Supply and install single core PVC unsheathed cables 10mm (East Africa cables or equivalent)	LM		30	
137.	Supply and install single core PVC unsheathed cables 16mm (East Africa cables or equivalent)	LM		30	
138.	Supply and install three core 1.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
139.	Supply and install three core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
140.	Supply and install four core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
141.	Supply and install four core 6mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
142.	Supply and install four core 10mm still armored cable unbraided cable	LM		25	
143.	Supply and install four core 16mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
144.	Supply and install four core 125mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		10	
145.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (20 mm)	LM		25	
146.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (25 mm)	LM		25	
147.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (32 mm)	LM		25	
148.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (20 mm)	LM		25	
149.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories.(25 mm)	LM		25	
150.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (32 mm)	LM		25	
151.	Supply and replace 1 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	

152.	Supply and replace 2 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
153.	Supply and replace 3 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
154.	Supply and replace 4 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
155.	Supply and replace 1 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
156.	Supply and replace 2 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
157.	Supply and replace 3 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
158.	Supply and replace 4 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
159.	Remove/reinstall existing electric outlets (sockets)	EA		5	
160.	Replace enclose circuit breakers 10A, 20A, 30A, 40A, 60A in existing panel board	EA		5	
161.	Supply and install single socket 13A (ordinary)	EA		5	
162.	Supply and install twin socket 13A (ordinary)	EA		5	
163.	Supply and install single socket 15A (ordinary)	EA		5	
164.	Supply and install 13A metal clad sockets	EA		5	
165.	Supply and install 15A metal clad sockets	EA		5	
166.	Supply and install twin socket 13A metallic	EA		5	
167.	Supply and install wall light fixtures (half-moon)	EA		10	
168.	Clean the diffusers for all the light fixtures	EA		10	
169.	Supply and install ceiling fan 4-5 blades (hunters or equivalent 240V-50HZ)	EA		4	
170.	Supply and install flat plate DP switch (45ADP cooker unit with neon) Crabtree or equivalent	EA		2	
171.	Supply and install 6WX240V decoster bulbs (warm white)	EA		24	
172.	Supply and install 24 hr. timer 240V 50HZ	EA		2	
173.	Supply and install photo cell fitting 240V,10A	EA		2	
174.	Supply and install exhaust fan (240V/50HZ, 200 mm dia.)	SM		4	
175.	Supply and install exhaust fan (250V/50HZ, 200 mm dia.)	SM		4	
176.	Replace residential type range hood, including exhaust fan, 160 CFM, 1/8HP, 42"L x18"W x 6"H (GFP)	EA		1	
	TOTAL ELECTRICAL				
	CARPENTRY SECTION (See C.2.7)				

177.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, two coats of paint (9 mm board)	SM		200	
178.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, filler work, surface preparation and three coats of paint on a 12 mm board	SM		200	
179.	Supply and install suspended ceiling wood or metal support frame for drop ceiling complete with galvanized annealed iron suspension and other associated fasteners	LM		300	
180.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – smooth	SM		200	
181.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – coarse	SM		50	
182.	Supply and install wood blundering 50mm x 50mm thick spaced 600 mm c/c seasoned soft wood	LM		50	
183.	Replace CMU wall cracks-chip off, 1" thick v-joint and seal w/mortar to match existing wall	LM		100	
184.	Replace 1" x 4" wood baseboard (seasoned hard wood) and prepare surface for painting or varnishing as applicable	LM		100	
185.	Replace 1" x 4" wood baseboard (seasoned soft wood) and prepare surface for painting or varnishing as applicable	LM		100	
186.	Replace vinyl cove base, 4" to 6" high	LM		50	
187.	Replace ceiling cornices (wooden)	LM		200	
188.	Replace ceiling cornices (PVC)	LM		200	
189.	Fabricate and install mahogany 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screens	SM		20	
190.	Fabricate and install sliding aluminum frames 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screen	SM		20	
191.	Replace worn out aluminum insect screens on wooden frame	SM		20	
192.	Replace worn out aluminum insect screens on aluminum frame	SM		20	
193.	Replace vinyl composition tile floor, 12"x12"x1/8" thick	SM		100	
194.	Repair metal garden gates , approx. 3ft x 5ft	EA		1	
195.	Replace metal garden gates , approx. 3ft x 5ft	EA		1	

196.	Supply and replace 50 mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall	EA		4	
197.	Supply and replace 50mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall mahogany veneered both sides	EA		4	
198.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1500 mm x 2060 mm high	EA		4	
199.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1820 mm x 2060 mm high	EA		4	
200.	Supply and replace 50 mm thick solid cored ordinary flush door shatter size 1820 mm x 2060 mm high	EA		4	
201.	Supply and replace 50 mm thick solid cored ordinary flush door mahogany veneered size 1820 mm x 2060 mm high	EA		4	
202.	Supply and install 50 mm thick mahogany door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
203.	Supply and install 50 mm thick mvule door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
204.	Supply and install 100 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
205.	Supply and install 150 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
206.	Supply and install 200 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
207.	Supply and install 100 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
208.	Supply and install 150 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
209.	Supply and install 200 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
210.	Supply and install 50 x 25 mm architrave	LM		20	
211.	Supply and install 15 mm quadrants	LM		15	
212.	Replace low profile aluminum threshold , 4"-6"	EA		10	
213.	Supply and install absolute black double beveled threshold 4"-6" x 36" x 5/8" beveled sides and top polished	EA		10	
214.	Replace door stopper and holder	EA		5	
215.	Supply and install door closer heavy duty CUSH-N- STOP parallel arm closer adjustable from size 1	EA		5	

	– 6 (union or equivalent)				
216.	Supply and install door closer residential duty CUSH-N-STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
217.	Supply and replace mortise door lockset (2 lever)	EA		5	
218.	Supply and replace mortise door lockset (3 lever)	EA		5	
219.	Supply and replace mortise door lockset (4 lever)	EA		5	
220.	Supply and replace mortise door lockset (5 lever)	EA		5	
221.	Supply and install steel door locks union or equivalent (3 lever)	EA		5	
222.	Supply and install rim lock (viro or equivalent)	EA		5	
223.	Supply and install 4 lever cupboard lock union or equivalent	EA		10	
224.	Supply and install cylinder night latch	EA		2	
225.	Supply and install 3 lever sliding door lock	EA		5	
226.	Duplicate key (Yale)	EA		10	
227.	Duplicate key (Union Mortise)	EA		10	
228.	Duplicate key (Double bitted key)	EA		5	
229.	Supply and install lockset for interior door with keyless type	EA		5	
230.	Replace hinge butt, 4" (pressed steel)	PR		16	
231.	Replace hinge butt, 4" (aluminum)	PR		16	
232.	Replace hinge butt, 4" (bronze)	PR		16	
233.	Replace hinge butt, 4" (steel)	PR		16	
234.	Replace hinge butt, 5" (pressed steel)	PR		16	
235.	Replace hinge butt, 5" (aluminum)	PR		16	
236.	Replace hinge butt, 5" (bronze)	PR		16	
237.	Replace hinge butt, 5" (steel)	PR		16	
238.	Replace hinge butt, 3" (pressed steel)	PR		16	
239.	Replace hinge butt, 3" (aluminum)	PR		16	
240.	Replace hinge butt, 3" (bronze)	PR		16	
241.	Replace hinge butt, 3" (steel)	PR		16	
242.	Supply and install door sweeper	LM		10	
243.	Supply and install malpa hinges	EA		20	
244.	Supply and install piano hinges	LM			
245.	Supply and install low level (base) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, drawers, hardware, doors and toe kick. Face made of high quality solid wood, well-seasoned mvule/mahogany; interiors made of block board	SM		15	
246.	Supply and install high level (wall) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, hardware, and doors. Face made of high quality solid wood, well-seasoned mvule/mahogany.	SM		15	

	Interiors made of block board				
247.	Supply and replace closet door ball catcher	EA		20	
248.	Supply and install window clear glass 5 mm thick	SM		10	
249.	Supply and install frosted window glass (5 mm thick)	SM		10	
250.	Supply and install translucent window glass (5 mm thick)	SM		5	
251.	Supply and replace window fastener (brass) pairs	EA		12	
252.	Supply and replace window stay (brass) pairs	EA		12	
253.	Replace stainless steel (SST) shower curtain/closet rod, 1" dia including accessories	LM		10	
254.	Replace stainless steel (SST) shower curtain/closet rod, 3/4" dia including accessories	LM		10	
255.	Replace stainless steel robe hook	EA		12	
256.	Replace brass robe hook	EA		12	
257.	Replace stainless steel grab bar (1 inch diameter) complete with accessories	LM		12	
258.	Replace vanity cabinet incl. 700 mm W x 490 mm D x 760 mm H	EA		4	
259.	Replace medicine cabinet SAJM3207 approximately (150 mm x 600 mm x 600) with internal and external mirrors	EA		2	
260.	Supply and install 12 mm thick wood blocks mahogany	SM		20	
261.	Supply and install 12 mm thick wood blocks cyprus	SM		20	
262.	Supply and install 12 mm thick wood blackwood center square	SM		20	
263.	supply and install T&G ceiling from cyprus	SM		100	
264.	Supply and install brass tower bolt (50 mm)	EA		12	
265.	Supply and install brass tower bolt (75 mm)	EA		12	
266.	Supply and install brass tower bolt (100 mm)	EA		12	
267.	Supply and install brass tower bolt (150 mm)	EA		12	
268.	Supply and install brass tower bolt (200 mm)	EA		12	
269.	Supply and install aluminum tower bolt (50 mm)	EA		12	
270.	Supply and install aluminum tower bolt (75 mm)	EA		12	
271.	Supply and install aluminum tower bolt (100 mm)	EA		12	
272.	Supply and install aluminum tower bolt (150 mm)	EA		12	
273.	Supply and install aluminum tower bolt (200 mm)	EA		12	
274.	Supply and install 25 mm thick plain block board	SM		12	
275.	Supply and install 25mm thick block board mahogany veneered one side	SM		14.4	
276.	Supply and install 25mm thick block board mahogany veneered both sides	SM		14.4	

277.	Provide and install shoring on a shown location	SM		100	
278.	Supply and install hoarding on a shown location	SM		100	
279.	Supply and install 6 mm plywood	SM		14.4	
280.	Supply and install 1.6 mm plain color “formica sheeting”	SM		14.4	
281.	Supply and install 18 mm MDF boards	SM		14.4	
282.	Supply and install 3 mm thick MDF board	SM		14.4	
283.	Supply and install 6 mm thick MDF board	SM		14.4	
284.	Supply and install 4 mm clear mirrors	SM		2.88	
285.	Supply and install 5 mm polished plate glass mirror	SM		2.88	
286.	Supply and install 6 mm polished plate glass mirror	SM		2.88	
287.	Supply and install 5 mm bronze mirror	SM		2.88	
288.	Supply and install 600 mm x 450 mm x 6 mm thick polished plate glass mirror with beveled and smoothed edges and drilled four times for and including fixing to plugged wall or timber with mild steel screws and dome shaped chromium plated screw covers	No.		4	
289.	Supply and install 5 mm polished plate glass one way mirror	SM		4	
290.	Supply and install 5 mm thick x 150 mm wide louvre blades with polished edges clear sheet	LM		40	
291.	Supply and install 200 x 20 mm fascia board including 3 coats of emulsion paint	LM		40	
	TOTAL CARPENTRY				
	MASONRY (See C.2.9)				
292.	Repair cracks concrete stoop-chip off 1" wide v-joint 7 seal with cement grout	LM		20	
293.	Construct wall, 8" thick	SM		100	
294.	Construct wall, 4" thick	SM		100	
295.	Construct red brick wall, 8" thick	SM		100	
296.	Supply and install counter granite 20 mm thick by 600 mm wide (black galaxy)	LM		100	
297.	Supply and install counter granite 20 mm thick by 600 mm wide (red)	LM		10	
298.	Supply and install counter granite 20 mm thick by 600 mm white (platinum white)	LM		10	
299.	Supply and install counter granite 20 mm thick by 600 mm wide (galaxy white)	LM		10	
300.	Supply and install counter granite 20 mm thick by 600 mm wide (absolute black)	LM		10	

301.	Supply and install counter granite 20 mm thick by 600 mm wide (China pink)	LM		10	
302.	Supply and install counter granite 20 mm thick by 600 mm wide (golden pearl)	LM		10	
303.	Supply and install counter granite 20 mm thick by 600 mm wide (paradiso)	LM		10	
304.	Supply and install ceramic floor tiles 300 x 300 mm	SM		200	
305.	Supply and install Non-skid porcelain floor tiles 600 x 600 mm	SM		200	
306.	Supply and install granito floor tiles 600 x 600 mm	SM		200	
307.	Supply and install ceramic wall tiles 300 x 300 mm	SM		250	
308.	Supply and install Non-skid porcelain wall tiles 600 x 600	SM		300	
309.	Supply and install granito wall tiles 600 x 600 mm	SM		100	
310.	Supply and install mosaic tiles	SM		100	
311.	Supply and install mazeras cladding (cut)	SM		300	
312.	Supply and install mazeras cladding (natural edges)	SM		300	
313.	Supply specialized labor for general work including demolition, cart away, construction, trenching, painting, caulking	HRS		80	
314.	Clean entire height of chimney with purpose made tools/brushes before internal work is done. Ensure fire place is temporarily closed off to prevent soot entering the house	EA		1	
315.	Replace caulking for bathrooms and kitchen	LM		200	
316.	Install clients supplied tiles	SM		100	
317.	Undertake wire brushing to stone walling	SM		400	
318.	Undertake sandblasting to surfaces of concrete walls/columns or beams	SM		200	
319.	Construct plaster work 15 mm thick two coat cement sand (1:4) plaster trowelled smooth and comprising 12 mm backing and 3 mm fishing coat	SM		100	
320.	Construct 15 mm thick cement sand (1:3) backing plaster to walls to receive tilling	SM		100	
	TOTAL MASONRY				
	ROOFING SECTION (See C.2.6)				
321.	Repair and replace leaky roof including membrane and wood (clay roof tiles)	SM		300	
322.	Replace old rain gutter and downspout PVC	LM		30	
323.	Replace old rain Galvanized gutters	LM		30	

324.	Supply and install bituminous roofing felts 3-layer felt (14:14:38 kg/10 m) with mineral surface	SM		300	
325.	Supply and install bituminous 200 mm flashing	LM		50	
326.	Supply and install waterproofing rain base osmotic waterproofing for concrete (as per Italbuid imports)	SM		200	
327.	Supply and install waterproofing rain block osmotic waterproofing for concrete (as per Italbuid imports)	LM		100	
328.	Supply and install waterproofing rain Elastic Extra "E" – acrylic liquid membrane for general w/p (as per Italbuid imports)	SM		200	
329.	Supply and install sirrah P GR 4kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
330.	Supply and install sirrah P GR 5kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
331.	Supply and install tefond plus – high density polyethylene membrane (as per italbuid imports)	SM		200	
332.	Supply and install guttafo N 140 under layer for tiled roofs (as per Italbuid imports)	SM		200	
333.	Supply and install guttafo N 160 under layer for tiled roofs (as per Italbuid imports)	SM		200	
334.	Supply and install flat roofing finishes Sirrah P GR 4kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
335.	Supply and install flat roofing finishes Sirrah P GR 5kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
336.	Supply and install pre-painted GI and alu-zinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 22G	SM		300	
337.	Supply and install pre-painted GI and aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 24G	SM		300	
338.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 26G	SM		300	
339.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 28G	SM		200	

340.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 30G	SM		250	
341.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 32G	SM		250	
342.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 22 g	SM		250	
343.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 24 g	SM		250	
344.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 26 g	SM		250	
345.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 28 g	SM		250	
346.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 30 g	SM		250	
347.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 32 g	SM		250	
348.	supply and install plain sheets 960 mm wide 22 gauge	SM		300	
349.	supply and install plain sheets 960 mm wide 24 gauge	SM		300	
350.	supply and install plain sheets 960 mm wide 26 gauge	SM		300	
351.	supply and install plain sheets 960 mm wide 28 gauge	SM		300	
352.	supply and install plain sheets 960 mm wide 30 gauge	SM		300	
353.	Supply and install mini-corrugation-mc 699 30 gauge	SM		300	
354.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 25 mm	SM		300	
355.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 40 mm	SM		300	
356.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 25 mm mesh	SM		300	
357.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 40 mm mesh	SM		300	

358.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22G x 380 MM	SM		300	
359.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
360.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
361.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22 G X 570mm	LM		50	
362.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
363.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
364.	Supply and install clay roofing tiles interlocking clay tiles size 400 x 250 x 50 mm x 3.1kg/unit	SM		200	
365.	Supply and install Roman clay tiles size 375 x 150 x 66 mm	SM		200	
366.	Supply and install Brosley plain clay tiles size 250 mm x 150 mm x 15 MM	SM		200	
367.	Supply and install Portuguese clay tiles size 41 x 190 x 14 mm	SM		200	
368.	Supply and install slip tiles size 300 x 175 x 50 mm used on mabati sheets	SM		200	
369.	Supply and install Harvey roofing tiles 1700 x 397 mm Elite and Tufftile-Acrylic	SM		200	
370.	Supply and install stone coat	SM		300	
371.	Supply and install Harvey roofing 1700 x 397 mm Romantile, shaketile and academy tile - acrylic stone coat	SM		200	
372.	Supply and install Harvey roofing stone coat	SM		200	
373.	Supply and install dura tile(stone coated) 1690 x 397 mm, Dura tile, Elite 0.45 mm thick	SM		200	
374.	Supply and install dura tile (stone coated) 1710 x 398 mm, Durama tiles, 0.45 mm thick	SM		200	
375.	Supply and install dura tile (stone coated) roll top ridges, 1.8 mts length	LM		50	
376.	Supply and install dura tile accessories 1720 mm Angle Ridge cap	LM		50	
377.	Supply and install dura tile accessories 580 mm angle hip cap	LM		50	
378.	Supply and install dura tile accessories 170 mm cover flashings	LM		50	
379.	Supply and install dura tile accessories 1550 mm barge board covers	LM		50	
380.	Supply and install dura tile accessories 1550 mm	LM		30	

	side wall flashings				
381.	Supply and install UPVC carbon fiber roof sheets as dura roofing products	LM		30	
382.	Supply and install carbon fiber UPVC sheets, 2.0 mm thick	SM		50	
383.	Supply and install carbon fiber UPVC sheets, 2.5 mm thick	SM		50	
384.	Supply and install carbon fiber UPVC sheets, 3.0 mm thick	SM		50	
385.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters	LM		50	
386.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
387.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 24G x 300 mm half round	LM		50	
388.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 26G x 300 mm half round	LM		50	
389.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 100 x 75 mm box gutter	LM		50	
390.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
391.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
392.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 80 mm diameter round	LM		20	
393.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm diameter round	LM		20	
394.	Supply and install water goods pre-painted G.I/Alu-zinc 24G x 100 mm diameter round	LM		20	
395.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 100 mm diameter round	LM		20	
396.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box round	LM		20	
397.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 150 mm x 120 mm	LM		50	
398.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 150 mm x 120 mm	LM		50	
399.	Supply and install water goods pre-painted	LM		50	

	G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box gutter				
400.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box round	LM		20	
401.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 100 mm x 75 mm	LM		50	
402.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 100 mm x 75 mm	LM		50	
403.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
404.	Supply and install unpainted 200 mm G.I/Aluzinc gutters 24G x 300 mm half round	LM		50	
405.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 100 mm x 75 mm box gutter	LM		50	
406.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 24G x 100 mm x 75 mm box gutter	LM		50	
407.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 26G x 100 mm x 75 mm box gutter	LM		50	
408.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
409.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
410.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 80 mm diameter round	LM		20	
411.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 110 mm diameter round	LM		20	
412.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 110 mm diameter round	LM		20	
413.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 110 mm diameter round	LM		20	
414.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box gutter	LM		20	
415.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 120 mm box gutter	LM		20	
416.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 120 mm box gutter	LM		20	
417.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 150 mm x 75 mm box gutter	LM		20	
418.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 75 mm box gutter	LM		20	
419.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 75 mm box gutter	LM		20	
420.	Supply and install plastic rainwater goods gutters	LM		50	

	140 mm diameter half round				
421.	Supply and install plastic rainwater goods gutters 180 mm diameter half round	LM		50	
422.	Supply and install plastic rainwater goods in gutters of 250 mm diameter half round	LM		50	
423.	Supply and install extra over gutter for click-fit stop end 140 mm diameter	No.		10	
424.	Supply and install extra over gutter for click-fit stop end 180 mm	No.		10	
425.	Supply and install extra over gutter for click-fit stop end 250 mm	No.		10	
426.	Supply and install extra over gutter for click-fit gutter joint union 140 mm diameter	No.		12	
427.	Supply and install extra over gutter for click-fit gutter joint union 180 mm	No.		12	
428.	Supply and install extra over gutter for click-fit gutter joint union 250 mm	No.		12	
429.	Supply and install gutter support brackets 140 mm	No.		24	
430.	Supply and install gutter support brackets 180 mm	No.		24	
431.	Supply and install gutter support brackets 250 mm	No.		24	
432.	Supply and install click fit stop end with running outlet 140 mm x 75 mm	No.		12	
433.	Supply and install click fit stop end with running outlet 180 mm x 110 mm	No.		12	
434.	Supply and install click fit stop end with running outlet 250 mm x 160 mm	No.		12	
435.	Supply and install click fit running outlet 140 mm x 75 mm	No.		12	
436.	Supply and install click fit running outlet 180 mm x 110 mm	No.		12	
437.	Supply and install click fit running outlet 250 mm x 160 mm	No.		12	
438.	Supply and install plastic down pipes 160 mm diameter	No.		12	
439.	Supply and install plastic down pipes 110 mm	No.		10	
440.	Supply and install plastic down pipes 75 mm	No.		10	
441.	Supply and install down pipe shoe 160 mm diameter	No.		10	
442.	Supply and install down pipe shoe 110 mm	No.		10	
443.	Supply and install down pipe shoe 75 mm	No.		10	
444.	Supply and install down pipe bend 160 mm diameter	No.		20	
445.	Supply and install down pipe bend 110 mm	No.		20	
446.	Supply and install down pipe bend 75 mm	No.		20	

447.	Supply and install 2 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
448.	Supply and install 5 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
449.	Supply and install 10 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
450.	Provide scaffolding, set up to a height of maximum 20m and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days.	EA		1	
451.	Provide scaffolding, set up to a height of maximum 6m high and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days	EA		1	
	TOTAL ROOFING				
	CIVIL WORKS				
452.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 300 x 300 mm square	No.		4	
453.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 450 mm square	No.		4	
454.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular	No.		4	
455.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular – double seal	No.		4	
456.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular	No.		4	
457.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular double seal	No.		4	
458.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
459.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x	No.		4	

	600 mm square double seal				
460.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
461.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 900 mm rectangular with solid cast iron cover	No.		4	
462.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular	No.		4	
463.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular double seal	No.		4	
464.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square	No.		4	
465.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square double seal	No.		4	
466.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with solid cast iron cover	No.		4	
467.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with concrete fill type cast iron cover	No.		4	
468.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with metal cover	No.		4	
469.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (circular base)	No.		4	
470.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (Sauge base)	No.		4	
471.	Supply and install razor wire 450 mm diameter	LM		30	
472.	Supply and install razor wire 730 mm diameter	LM		30	
473.	Supply and install razor wire 980 mm diameter	LM		30	
474.	Supply and install 100 mm compact marram path	SM		200	
475.	Supply and install 100 mm bed of stone sub-base blinded to receive paving slabs	SM		100	
476.	Supply and install 25 mm thick Hatari tiles in sizes	LM		30	

	300 x 150 mm				
477.	Supply and install 25 mm thick Hatari tiles in sizes 375 x 150 mm	LM		30	
478.	Supply and install 600 x 600 x 50 mm grey P.C paving slabs on 50 mm bed of sand/quarry dust	SM		100	
479.	Construct road formation and sub base 300 mm thick grade formation in approved imported murrum	SM		100	
480.	Construct road formation and sub base 150 mm murrum or stone sub-base blinded	SM		100	
481.	Construct road formation and sub base 100 mm water – bound macadam	SM		100	
482.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45N/mm ²	SM		100	
483.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45-50N/mm ²	SM		100	
484.	Supply and install pre-cast concrete paving blocks 80mm thick heavy duty (available patterns-quad, interlocking, Uni, hexagonal, E-T, diplomat, Décor, circlestone, lock block) paving blocks with a minimum strength of 49N/mm ²	SM		100	
485.	Construct tarmac layer 25 mm bitumen double seal	SM		100	
486.	Construct tarmac layer 30mm premix bituminous surfacing	SM		100	
487.	Supply and apply bituminous prime coat Mc 30 A4/K170 @0.5liters/M ²	SM		100	
488.	Supply and install 125 x 250 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
489.	Supply and install 125 x 100 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
490.	Supply and install 125 x 250 mm radii kerbs on concrete foundation (M.O.W. Type A)	LM		30	
491.	Supply and install Pre-cast concrete 250 x 450 x 450 mm quadrants	No.		20	
492.	Supply and install Pre-cast concrete 250 x 300 x 300 mm quadrants	No.		20	
493.	Supply and install 125x100 x 900 mm long channels	No.		10	

494.	Supply and install 125x250 mm channels	No.		10	
495.	Supply and install 125x100 mm radii channels	No.		10	
496.	Supply and install 125x250 mm radii channels	No.		10	
497.	Supply and install pre-cast concrete invert block drains 125mm x 250mm x 150mm internal diameter	LM		20	
498.	Supply and install pre-cast concrete invert block drains 190 mm x 330mm x 225mm internal diameter	LM		20	
499.	Supply and install pre-cast concrete invert block drains 760 mm x 355 mm x 300 mm internal diameter	LM		30	
500.	Supply and install pre-cast concrete invert block drains 225 mm x 450 mm x 300 mm internal diameter	LM		30	
501.	Supply and install pre-cast concrete invert block drains 175 mm x 800 mm shallow invert block drain (600 mm overall)	LM		30	
502.	Supply and install pre-cast concrete invert block drains 150 mm x 305 mm (450 mm overall)	LM		30	
503.	Supply and install pre-cast concrete side slabs 75 mm thick x 230 mm wide	LM		30	
	TOTAL CIVIL WORKS				
Second Option Year Total					

B.3.6 THIRD OPTION YEAR PRICES

CLIN	Description of Service	Unit of Measure	Unit Price	Estimated Quantity	Total Estimated Price
	PAINTING SECTION (See C.2.1)				
1.	Scrape off all old paint, repair plaster, prime and smooth surface, apply one coat of interior primer or under-coat paint on walls	SM		1000	
2.	Apply two finishing coats of silk vinyl paint on interior walls (first quality crown paints or equal) color as instructed	SM		1000	
3.	Apply two finishing coats of gloss paint on interior walls (first quality crown paints or equal) color soft	SM		600	

	white				
4.	Scrap off old paint from ceiling and apply one coat of primer/under-coat.	SM		200	
5.	Apply two finishing coats of white emulsion (first quality paint from crown) to the ceiling	SM		200	
6.	Prepare and apply two coats of polyurethane varnish, to T&G surfaces (matt)	SM		300	
7.	Prepare and apply two finishing coats of first grade polyurethane varnish to T&G surface	SM		300	
8.	Scrape off all old paint prime from exterior and apply one coat of primer and at least two coats of emulsion paint	SM		600	
9.	Prepare and apply two coats of exterior super gloss first quality from crown paints or equal enamel	SM		500	
10.	Prepare surface, paint trim/baseboards, two coats using (lead-free) paint gloss finish (first quality crown paints or equal)	SM		600	
11.	Vanish trim/baseboards, two coats, polyurethane/matt finish paint	LM		600	
12.	Paint damaged surfaces (resin or plastic-based paint/penetrating primer or equal)	SM		600	
13.	Varnish/shellac (epoxy) of woodwork, following surface preparation polyurethane/matt finish	SM		600	
14.	Varnish woodwork, following surface preparation 2-pack finish	SM		600	
15.	Prepare surface and install wallpaper	SM		200	
16.	Undertake minor repair/replace loose wooden floor parquet	SM		300	
17.	Machine sand wooden floors and apply three coats of polyurethane finish	SM		300	
18.	Machine sand wooden floors and apply three coats of matt finish	SM		300	
19.	Undertake surface preparation and apply textured coating	SM		200	
20.	Paint textured surfaces, one coat (emulsion/gloss; spray application including floor coverings, etc.)	SM		250	
21.	Prepare surface and apply ceiling texture (spray application including floor coverings, etc.)	SM		250	
22.	Prepare all internal grill work including safe heaven door, casement windows and doors and apply at least two coats of matt finish paint	SM		50	
23.	Prepare all internal grill work including safe heaven door, casement windows, and doors and apply at least two coats of gloss paint	SM		50	

24.	Prepare and apply two coats of terracotta paint on the chimney surface	SM		100	
25.	Scrap and apply at least two coats of floor paint	SM		300	
26.	Prepare and apply at least two coats of terracotta paint on the exterior walls	SM		500	
	TOTAL PAINTING SECTION				
	PLUMBING SECTION (See C.2.5)				
27.	Check and test all plumbing fixtures and snake-out all interior drain lines including humidifier drain line	EA		1	
28.	Replace PPR pipe, w/pipe fitting, 1/2" dia	LM		50	
29.	Replace PPR pipe, w/pipe fitting, 3/4" dia	LM		50	
30.	Replace PPR pipe, w/pipe fitting, 1" dia	LM		50	
31.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
32.	Replace galv. Steel pipe, w/pipe fitting, 3/4" dia	LM		25	
33.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
34.	Replace stand pipe and faucet with pegler or its equivalent bronze, 1/2" dia	EA		5	
35.	Replace stand pipe and faucet with pegler or its equivalent bronze, 3/4" dia	EA		5	
36.	Replace kitchen double sink faucet w/swing flexible wand style spout, American Standard 1802 or equivalent	SET		2	
37.	Replace kitchen sink, double bowl, stamped construction, burnished stainless steel finish	SET		2	
38.	Replace kitchen sink rinse sprayer w/hose	EA		2	
39.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
40.	Replace bottle trap for kitchen sink, 1- 1/2" (plastic)	EA		2	
41.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
42.	Replace bottle trap for kitchen sink, 1-1/2" (plastic)	EA		2	
43.	Replace kitchen sink strainer 4" opening	EA		2	
44.	Replace kitchen sink strainer 3" opening	EA		2	
45.	Replace kitchen sink drain line Non-metallic, 1-1/2" dia w/adapter	LM		2	
46.	Replace kitchen sink drain line metallic, 1-1/2" dia w/adapter	LM		2	
47.	Replace bathroom sink with swing flexible, with wand lever type faucet, water & drain line connection with American Standard 1802 or equal	SET		4	
48.	Replace dhobi sink faucet with swing flexible with one style spout (American Standard 1802 or equal)	SET		2	

49.	Replace bathroom sink with Daelim KL 237 or equal	EA		4	
50.	Replace toilet, V.C. elongated type with low tank Water & drain line connection with Daelim CC 303 or equal	SET		4	
51.	Replace toilet seat with slow closing cover	EA		4	
52.	Replace shower head and mixing valve assembly including water line connection (cobra or equivalent)	SET		4	
53.	Replace shower mixer (cobra or equivalent)	EA		4	
54.	Replace shower head 1-1/2" (cobra or equivalent)	EA		4	
55.	Replace cold water line, PPR piping, with fittings and 1" hanger	LM		4	
56.	Replace cold water line, PPR piping, with fittings and 3/4" hanger	LM		20	
57.	Replace cold water line, PPR piping, with fittings and 1/2" hanger	LM		20	
58.	Replace hot water line, GI fittings and 1/2" hanger	LM		10	
59.	Replace hot water line, GI fittings and 3/4" hanger	LM		10	
60.	Replace hot water line, GI fittings and 1" hanger	LM		10	
61.	Replace drain and sewer piping with 2" composite fittings	LM		20	
62.	Replace drain and sewer piping with 6" composite fittings	LM		20	
63.	Replace 60"x32" enameled cast iron bath tub with shower set and mixing water faucet including water and drain line connection with Bette Form 3620 or equivalent	SET		4	
64.	Remove and reinstall bath tub and clean out drain and properly connect bathtub drain after leak repair and undertake the necessary associated surface adjustments	EA		4	
65.	Replace floor drain 4" dia	EA		4	
66.	Replace floor drain 6" dia	EA		4	
67.	Replace clean out 4" dia	EA		4	
68.	Replace clean out 6" dia	EA		4	
69.	Supply and install shower cubical enclosure with tempered glass panel (1400 mm x 1400 mm x 2150 mm)	SET		4	
70.	Supply and install chrome plated toilet roll holder (wall mounted)	EA		4	
71.	Supply and install chrome plated soap holder (wall mounted)	EA		4	
72.	Supply and install chrome plated (wall mounted)	EA		4	

	600 mm towel holder				
73.	Supply and install two fold advent wash basin and pedestal	EA		4	
74.	Supply and install basin mixture (make; Bricon or equivalent)	EA			
75.	Supply and install low level ceramic cistern and associated fittings	EA		4	
76.	Supply and install squatting WC pan (Twyford)	EA		2	
77.	Supply and install dhobi sink (410 mm x 510 mm by 610 mm)	EA		2	
78.	Supply and install 406 mm diameter round sink (stainless steel)	EA		2	
79.	Supply and install rectangular sink of 1000 mm x 500 mm single bowl single drain (stainless steel)	EA		2	
80.	Supply and install rectangular sink of 1450 mm x 520 mm single bowl double drain (stainless steel)	EA		2	
81.	Supply and install rectangular sink of 200 mm x 500 mm single bowl double drain (stainless steel)	EA		2	
82.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (2 feet)	EA		4	
83.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (6 feet)	EA		4	
84.	Supply and install Twyford clifton urinal range consisting of: cistern, pipework, urinal poll waste and divider	EA		4	
85.	Supply and install solar water heater 300L capacity complete with installation kit	EA		4	
86.	Supply and install solar water heater 200L capacity complete with installation kit	EA		4	
87.	Supply and replace solar heater booster element (3KW) complete with the thermostat	EA		2	
88.	Supply and replace solar heater booster element (1.5KW) complete with the thermostat	EA		2	
89.	Supply and install uPVC water tank 24000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
90.	Supply and install uPVC water tank 10000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
91.	Supply and install uPVC water tank 5000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
92.	Supply and install composite man-hole covers (450 by 600) heavy duty	EA		5	

93.	Supply and install pressure release valve 6 bars	EA		4	
94.	Supply and install BMST 7 water heater thermostats	EA		6	
95.	Replace basket strainer 4"	EA		4	
96.	Replace basket strainer 6"	EA		4	
97.	Supply and install 1.5KW emersion heater	No.		6	
98.	Supply and install 2.0KW emersion heater	No.		6	
99.	Supply and install 3.0KW emersion heater	No.		6	
100.	Supply and install hot water tank of 40gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
101.	Supply and install hot water tank of 30gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
102.	Supply and install hot water tank of 20gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
103.	Supply and install hot water tank of 15gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
	TOTAL PLUMBING				
	ELECTRICAL SECTION (See C.2.4)				
104.	Supply and replace enclosed consumer unit complete with all applicable protection devices (6 – way) (Crabtree or equivalent)	EA		2	
105.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 9 way (Crabtree or equivalent)	EA		2	
106.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 12 way (Crabtree or equivalent)	EA		2	
107.	Supply and install a 3 phase 415V, 100Amps DFB	EA		1	

	complete with all applicable protection devices (Crabtree or equivalent)				
108.	Replace earth electrode bare copper 5ft and 7ft AWG	LM		2	
109.	Supply and replace grounding wire bare copper 4 mm -6 mm AWG	M		20	
110.	Supply and replace fluorescent light fixture, 2ft, 240V, 20W (diffused)	EA		10	
111.	Supply and replace hallway/bedroom light fixture (full moon or 2D – 28wt or its equivalent)	EA		12	
112.	Supply and replace diffused fluorescent light fixture, 1/100 watt, weather proof	EA		10	
113.	Installation of flood light fixture (fixture will be furnished by government)	EA		12	
114.	Supply and install 240V, 6-arm dining room chandelier with lights	EA		2	
115.	Replace enclosed light fixture (2D 16 W) or its equivalent	EA		12	
116.	Replace bathroom vanity light	EA		4	
117.	Installation of recessed fluorescent light fixture in the kitchen	EA		2	
118.	Replace GFCI 10mA x 240V socket outlet	EA		15	
119.	Replace GFCI 10mA x 240V circuit breaker	EA		15	
120.	Supply and replace doorbell 5Ax240V	EA		1	
121.	Supply and install wireless doorbell (battery operated)	EA		1	
122.	Supply and replace dimmer switch, 600 watt for incandescent light (GFP)	EA		6	
123.	Replace buzzer DC 6V with chime bell, AC 100V (GFP)	EA		1	
124.	Supply and install PVC adapter boxes, 4" SQ	EA		20	
125.	Supply and install PVC adapter boxes, 2"x4"	EA		20	
126.	Replace flexible conduit pipe 20mm diameter	LM		50	
127.	Replace flexible conduit pipe 25mm diameter	LM		50	
128.	Replace flexible conduit pipe 32mm diameter	LM		50	
129.	Supply and replace double pole integral switches 100A	EA		2	
130.	Supply and replace double pole integral switches 60A	EA		2	
131.	Replace programmable thermostat for heating and cooling (GFP)	EA		2	
132.	Supply and install single core PVC unsheathed cables 1.5mm (East Africa cables or equivalent)	LM		30	
133.	Supply and install single core PVC unsheathed	LM		30	

	cables 2.5mm (East Africa cables or equivalent)				
134.	Supply and install single core PVC unsheathed cables 4.0mm (East Africa cables or equivalent)	LM		30	
135.	Supply and install single core PVC unsheathed cables 6.0mm (East Africa cables or equivalent)	LM		30	
136.	Supply and install single core PVC unsheathed cables 10mm (East Africa cables or equivalent)	LM		30	
137.	Supply and install single core PVC unsheathed cables 16mm (East Africa cables or equivalent)	LM		30	
138.	Supply and install three core 1.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
139.	Supply and install three core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
140.	Supply and install four core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
141.	Supply and install four core 6mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
142.	Supply and install four core 10mm still armored cable unbraided cable	LM		25	
143.	Supply and install four core 16mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
144.	Supply and install four core 125mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		10	
145.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (20 mm)	LM		25	
146.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (25 mm)	LM		25	
147.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (32 mm)	LM		25	
148.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (20 mm)	LM		25	
149.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories.(25 mm)	LM		25	

150.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (32 mm)	LM		25	
151.	Supply and replace 1 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
152.	Supply and replace 2 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
153.	Supply and replace 3 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
154.	Supply and replace 4 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
155.	Supply and replace 1 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
156.	Supply and replace 2 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
157.	Supply and replace 3 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
158.	Supply and replace 4 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
159.	Remove/reinstall existing electric outlets (sockets)	EA		5	
160.	Replace enclose circuit breakers 10A, 20A, 30A, 40A, 60A in existing panel board	EA		5	
161.	Supply and install single socket 13A (ordinary)	EA		5	
162.	Supply and install twin socket 13A (ordinary)	EA		5	
163.	Supply and install single socket 15A (ordinary)	EA		5	
164.	Supply and install 13A metal clad sockets	EA		5	
165.	Supply and install 15A metal clad sockets	EA		5	
166.	Supply and install twin socket 13A metallic	EA		5	
167.	Supply and install wall light fixtures (half-moon)	EA		10	
168.	Clean the diffusers for all the light fixtures	EA		10	
169.	Supply and install ceiling fan 4-5 blades (hunters or equivalent 240V-50HZ)	EA		4	
170.	Supply and install flat plate DP switch (45ADP cooker unit with neon) Crabtree or equivalent	EA		2	
171.	Supply and install 6WX240V decoster bulbs (warm white)	EA		24	
172.	Supply and install 24 hr. timer 240V 50HZ	EA		2	
173.	Supply and install photo cell fitting 240V,10A	EA		2	
174.	Supply and install exhaust fan (240V/50HZ, 200 mm dia.)	SM		4	
175.	Supply and install exhaust fan (250V/50HZ, 200 mm dia.)	SM		4	
176.	Replace residential type range hood, including exhaust	EA		1	

	fan, 160 CFM, 1/8HP, 42"L x18"W x 6"H (GFP)				
	TOTAL ELECTRICAL				
	CARPENTRY SECTION (See C.2.7)				
177.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, two coats of paint (9 mm board)	SM		200	
178.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, filler work, surface preparation and three coats of paint on a 12 mm board	SM		200	
179.	Supply and install suspended ceiling wood or metal support frame for drop ceiling complete with galvanized annealed iron suspension and other associated fasteners	LM		300	
180.	Supply and install acoustic ceiling tiles (600 x 600 mm x1 6 mm) – smooth	SM		200	
181.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – coarse	SM		50	
182.	Supply and install wood blundering 50mm x 50mm thick spaced 600 mm c/c seasoned soft wood	LM		50	
183.	Replace CMU wall cracks-chip off, 1" thick v-joint and seal w/mortar to match existing wall	LM		100	
184.	Replace 1" x 4" wood baseboard (seasoned hard wood) and prepare surface for painting or varnishing as applicable	LM		100	
185.	Replace 1" x 4" wood baseboard (seasoned soft wood) and prepare surface for painting or varnishing as applicable	LM		100	
186.	Replace vinyl cove base, 4" to 6" high	LM		50	
187.	Replace ceiling cornices (wooden)	LM		200	
188.	Replace ceiling cornices (PVC)	LM		200	
189.	Fabricate and install mahogany 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screens	SM		20	
190.	Fabricate and install sliding aluminum frames 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screen	SM		20	
191.	Replace worn out aluminum insect screens on wooden frame	SM		20	
192.	Replace worn out aluminum insect screens on	SM		20	

	aluminum frame				
193.	Replace vinyl composition tile floor, 12"x12"x1/8" thick	SM		100	
194.	Repair metal garden gates , approx. 3ft x 5ft	EA		1	
195.	Replace metal garden gates , approx. 3ft x 5ft	EA		1	
196.	Supply and replace 50 mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall	EA		4	
197.	Supply and replace 50mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall mahogany veneered both sides	EA		4	
198.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1500 mm x 2060 mm high	EA		4	
199.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1820 mm x 2060 mm high	EA		4	
200.	Supply and replace 50 mm thick solid cored ordinary flush door shatter size 1820 mm x 2060 mm high	EA		4	
201.	Supply and replace 50 mm thick solid cored ordinary flush door mahogany veneered size 1820 mm x 2060 mm high	EA		4	
202.	Supply and install 50 mm thick mahogany door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
203.	Supply and install 50 mm thick mvule door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
204.	Supply and install 100 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
205.	Supply and install 150 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
206.	Supply and install 200 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
207.	Supply and install 100 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
208.	Supply and install 150 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
209.	Supply and install 200 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
210.	Supply and install 50 x 25 mm architrave	LM		20	
211.	Supply and install 15 mm quadrants	LM		15	
212.	Replace low profile aluminum threshold , 4"-6"	EA		10	
213.	Supply and install absolute black double beveled	EA		10	

	threshold 4"-6" x 36" x 5/8" beveled sides and top polished				
214.	Replace door stopper and holder	EA		5	
215.	Supply and install door closer heavy duty CUSH-N- STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
216.	Supply and install door closer residential duty CUSH-N-STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
217.	Supply and replace mortise door lockset (2 lever)	EA		5	
218.	Supply and replace mortise door lockset (3 lever)	EA		5	
219.	Supply and replace mortise door lockset (4 lever)	EA		5	
220.	Supply and replace mortise door lockset (5 lever)	EA		5	
221.	Supply and install steel door locks union or equivalent (3 lever)	EA		5	
222.	Supply and install rim lock (viro or equivalent)	EA		5	
223.	Supply and install 4 lever cupboard lock union or equivalent	EA		10	
224.	Supply and install cylinder night latch	EA		2	
225.	Supply and install 3 lever sliding door lock	EA		5	
226.	Duplicate key (Yale)	EA		10	
227.	Duplicate key (Union Mortise)	EA		10	
228.	Duplicate key (Double bitted key)	EA		5	
229.	Supply and install lockset for interior door with keyless type	EA		5	
230.	Replace hinge butt, 4" (pressed steel)	PR		16	
231.	Replace hinge butt, 4" (aluminum)	PR		16	
232.	Replace hinge butt, 4" (bronze)	PR		16	
233.	Replace hinge butt, 4" (steel)	PR		16	
234.	Replace hinge butt, 5" (pressed steel)	PR		16	
235.	Replace hinge butt, 5" (aluminum)	PR		16	
236.	Replace hinge butt, 5" (bronze)	PR		16	
237.	Replace hinge butt, 5" (steel)	PR		16	
238.	Replace hinge butt, 3" (pressed steel)	PR		16	
239.	Replace hinge butt, 3" (aluminum)	PR		16	
240.	Replace hinge butt, 3" (bronze)	PR		16	
241.	Replace hinge butt, 3" (steel)	PR		16	
242.	Supply and install door sweeper	LM		10	
243.	Supply and install malpa hinges	EA		20	
244.	Supply and install piano hinges	LM			
245.	Supply and install low level (base) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, drawers, hardware, doors and toe kick. Face made of high quality solid wood, well-seasoned	SM		15	

	mvule/mahogany; interiors made of block board				
246.	Supply and install high level (wall) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, hardware, and doors. Face made of high quality solid wood, well-seasoned mvule/mahogany. Interiors made of block board	SM		15	
247.	Supply and replace closet door ball catcher	EA		20	
248.	Supply and install window clear glass 5 mm thick	SM		10	
249.	Supply and install frosted window glass (5 mm thick)	SM		10	
250.	Supply and install translucent window glass (5 mm thick)	SM		5	
251.	Supply and replace window fastener (brass) pairs	EA		12	
252.	Supply and replace window stay (brass) pairs	EA		12	
253.	Replace stainless steel (SST) shower curtain/closet rod, 1" dia including accessories	LM		10	
254.	Replace stainless steel (SST) shower curtain/closet rod, 3/4" dia including accessories	LM		10	
255.	Replace stainless steel robe hook	EA		12	
256.	Replace brass robe hook	EA		12	
257.	Replace stainless steel grab bar (1 inch diameter) complete with accessories	LM		12	
258.	Replace vanity cabinet incl. 700 mm W x 490 mm D x 760 mm H	EA		4	
259.	Replace medicine cabinet SAJM3207 approximately (150 mm x 600 mm x 600) with internal and external mirrors	EA		2	
260.	Supply and install 12 mm thick wood blocks mahogany	SM		20	
261.	Supply and install 12 mm thick wood blocks cyprus	SM		20	
262.	Supply and install 12 mm thick wood blackwood center square	SM		20	
263.	supply and install T&G ceiling from cyprus	SM		100	
264.	Supply and install brass tower bolt (50 mm)	EA		12	
265.	Supply and install brass tower bolt (75 mm)	EA		12	
266.	Supply and install brass tower bolt (100 mm)	EA		12	
267.	Supply and install brass tower bolt (150 mm)	EA		12	
268.	Supply and install brass tower bolt (200 mm)	EA		12	
269.	Supply and install aluminum tower bolt (50 mm)	EA		12	
270.	Supply and install aluminum tower bolt (75 mm)	EA		12	
271.	Supply and install aluminum tower bolt (100 mm)	EA		12	
272.	Supply and install aluminum tower bolt (150 mm)	EA		12	
273.	Supply and install aluminum tower bolt (200 mm)	EA		12	

274.	Supply and install 25 mm thick plain block board	SM		12	
275.	Supply and install 25mm thick block board mahogany veneered one side	SM		14.4	
276.	Supply and install 25mm thick block board mahogany veneered both sides	SM		14.4	
277.	Provide and install shoring on a shown location	SM		100	
278.	Supply and install hoarding on a shown location	SM		100	
279.	Supply and install 6 mm plywood	SM		14.4	
280.	Supply and install 1.6 mm plain color "formica sheeting"	SM		14.4	
281.	Supply and install 18 mm MDF boards	SM		14.4	
282.	Supply and install 3 mm thick MDF board	SM		14.4	
283.	Supply and install 6 mm thick MDF board	SM		14.4	
284.	Supply and install 4 mm clear mirrors	SM		2.88	
285.	Supply and install 5 mm polished plate glass mirror	SM		2.88	
286.	Supply and install 6 mm polished plate glass mirror	SM		2.88	
287.	Supply and install 5 mm bronze mirror	SM		2.88	
288.	Supply and install 600 mm x 450 mm x 6 mm thick polished plate glass mirror with beveled and smoothed edges and drilled four times for and including fixing to plugged wall or timber with mild steel screws and dome shaped chromium plated screw covers	No.		4	
289.	Supply and install 5 mm polished plate glass one way mirror	SM		4	
290.	Supply and install 5 mm thick x 150 mm wide louvre blades with polished edges clear sheet	LM		40	
291.	Supply and install 200 x 20 mm fascia board including 3 coats of emulsion paint	LM		40	
	TOTAL CARPENTRY				
	MASONRY (See C.2.9)				
292.	Repair cracks concrete stoop-chip off 1" wide v-joint 7 seal with cement grout	LM		20	
293.	Construct wall, 8" thick	SM		100	
294.	Construct wall, 4" thick	SM		100	
295.	Construct red brick wall, 8" thick	SM		100	
296.	Supply and install counter granite 20 mm thick by 600 mm wide (black galaxy)	LM		100	
297.	Supply and install counter granite 20 mm thick by 600 mm wide (red)	LM		10	
298.	Supply and install counter granite 20 mm thick by	LM		10	

	600 mm white (platinum white)				
299.	Supply and install counter granite 20 mm thick by 600 mm wide (galaxy white)	LM		10	
300.	Supply and install counter granite 20 mm thick by 600 mm wide (absolute black)	LM		10	
301.	Supply and install counter granite 20 mm thick by 600 mm wide (China pink)	LM		10	
302.	Supply and install counter granite 20 mm thick by 600 mm wide (golden pearl)	LM		10	
303.	Supply and install counter granite 20 mm thick by 600 mm wide (paradiso)	LM		10	
304.	Supply and install ceramic floor tiles 300 x 300 mm	SM		200	
305.	Supply and install Non-skid porcelain floor tiles 600 x 600 mm	SM		200	
306.	Supply and install granito floor tiles 600 x 600 mm	SM		200	
307.	Supply and install ceramic wall tiles 300 x 300 mm	SM		250	
308.	Supply and install Non-skid porcelain wall tiles 600 x 600	SM		300	
309.	Supply and install granito wall tiles 600 x 600 mm	SM		100	
310.	Supply and install mosaic tiles	SM		100	
311.	Supply and install mazeras cladding (cut)	SM		300	
312.	Supply and install mazeras cladding (natural edges)	SM		300	
313.	Supply specialized labor for general work including demolition, cart away, construction, trenching, painting, caulking	HRS		80	
314.	Clean entire height of chimney with purpose made tools/brushes before internal work is done. Ensure fire place is temporarily closed off to prevent soot entering the house	EA		1	
315.	Replace caulking for bathrooms and kitchen	LM		200	
316.	Install clients supplied tiles	SM		100	
317.	Undertake wire brushing to stone walling	SM		400	
318.	Undertake sandblasting to surfaces of concrete walls/columns or beams	SM		200	
319.	Construct plaster work 15 mm thick two coat cement sand (1:4) plaster trowelled smooth and comprising 12 mm backing and 3 mm fishing coat	SM		100	
320.	Construct 15 mm thick cement sand (1:3) backing plaster to walls to receive tilling	SM		100	
	TOTAL MASONRY				
	ROOFING SECTION (See C.2.6)				

321.	Repair and replace leaky roof including membrane and wood (clay roof tiles)	SM		300	
322.	Replace old rain gutter and downspout PVC	LM		30	
323.	Replace old rain Galvanized gutters	LM		30	
324.	Supply and install bituminous roofing felts 3-layer felt (14:14:38 kg/10 m) with mineral surface	SM		300	
325.	Supply and install bituminous 200 mm flashing	LM		50	
326.	Supply and install waterproofing rain base osmotic waterproofing for concrete (as per Italbuid imports)	SM		200	
327.	Supply and install waterproofing rain block osmotic waterproofing for concrete (as per Italbuid imports)	LM		100	
328.	Supply and install waterproofing rain Elastic Extra “E” – acrylic liquid membrane for general w/p (as per Italbuid imports)	SM		200	
329.	Supply and install sirrah P GR 4kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
330.	Supply and install sirrah P GR 5kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
331.	Supply and install tefond plus – high density polyethylene membrane (as per italbuid imports)	SM		200	
332.	Supply and install guttafo N 140 under layer for tiled roofs (as per Italbuid imports)	SM		200	
333.	Supply and install guttafo N 160 under layer for tiled roofs (as per Italbuid imports)	SM		200	
334.	Supply and install flat roofing finishes Sirrah P GR 4kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
335.	Supply and install flat roofing finishes Sirrah P GR 5kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
336.	Supply and install pre-painted GI and alu-zinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 22G	SM		300	
337.	Supply and install pre-painted GI and aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 24G	SM		300	
338.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm	SM		300	

	wide) 26G				
339.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 28G	SM		200	
340.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 30G	SM		250	
341.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 32G	SM		250	
342.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 22 g	SM		250	
343.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 24 g	SM		250	
344.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 26 g	SM		250	
345.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 28 g	SM		250	
346.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 30 g	SM		250	
347.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 32 g	SM		250	
348.	supply and install plain sheets 960 mm wide 22 gauge	SM		300	
349.	supply and install plain sheets 960 mm wide 24 gauge	SM		300	
350.	supply and install plain sheets 960 mm wide 26 gauge	SM		300	
351.	supply and install plain sheets 960 mm wide 28 gauge	SM		300	
352.	supply and install plain sheets 960 mm wide 30 gauge	SM		300	
353.	Supply and install mini-corrugation-mc 699 30 gauge	SM		300	
354.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 25 mm	SM		300	
355.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 40 mm	SM		300	
356.	Supply and install tile roof support hot dipped	SM		300	

	galvanized chicken wire 22 gauge 1828 mm high with 25 mm mesh				
357.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 40 mm mesh	SM		300	
358.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22G x 380 MM	SM		300	
359.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
360.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
361.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22 G X 570mm	LM		50	
362.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
363.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
364.	Supply and install clay roofing tiles interlocking clay tiles size 400 x 250 x 50 mm x 3.1kg/unit	SM		200	
365.	Supply and install Roman clay tiles size 375 x 150 x 66 mm	SM		200	
366.	Supply and install Brosley plain clay tiles size 250 mm x 150 mm x 15 MM	SM		200	
367.	Supply and install Portuguese clay tiles size 41 x 190 x 14 mm	SM		200	
368.	Supply and install slip tiles size 300 x 175 x 50 mm used on mabati sheets	SM		200	
369.	Supply and install Harvey roofing tiles 1700 x 397 mm Elite and Tufftile-Acrylic	SM		200	
370.	Supply and install stone coat	SM		300	
371.	Supply and install Harvey roofing 1700 x 397 mm Romantile, shaketile and academy tile - acrylic stone coat	SM		200	
372.	Supply and install Harvey roofing stone coat	SM		200	
373.	Supply and install dura tile(stone coated) 1690 x 397 mm, Dura tile, Elite 0.45 mm thick	SM		200	
374.	Supply and install dura tile (stone coated) 1710 x 398 mm, Durama tiles, 0.45 mm thick	SM		200	
375.	Supply and install dura tile (stone coated) roll top ridges, 1.8 mts length	LM		50	
376.	Supply and install dura tile accessories 1720 mm Angle Ridge cap	LM		50	
377.	Supply and install dura tile accessories 580 mm angle hip cap	LM		50	

378.	Supply and install dura tile accessories 170 mm cover flashings	LM		50	
379.	Supply and install dura tile accessories 1550 mm barge board covers	LM		50	
380.	Supply and install dura tile accessories 1550 mm side wall flashings	LM		30	
381.	Supply and install UPVC carbon fiber roof sheets as dura roofing products	LM		30	
382.	Supply and install carbon fiber UPVC sheets, 2.0 mm thick	SM		50	
383.	Supply and install carbon fiber UPVC sheets, 2.5 mm thick	SM		50	
384.	Supply and install carbon fiber UPVC sheets, 3.0 mm thick	SM		50	
385.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters	LM		50	
386.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
387.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 24G x 300 mm half round	LM		50	
388.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 26G x 300 mm half round	LM		50	
389.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 100 x 75 mm box gutter	LM		50	
390.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
391.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
392.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 80 mm diameter round	LM		20	
393.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm diameter round	LM		20	
394.	Supply and install water goods pre-painted G.I/Alu-zinc 24G x 100 mm diameter round	LM		20	
395.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 100 mm diameter round	LM		20	
396.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box round	LM		20	

397.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 150 mm x 120 mm	LM		50	
398.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 150 mm x 120 mm	LM		50	
399.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box gutter	LM		50	
400.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box round	LM		20	
401.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 100 mm x 75 mm	LM		50	
402.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 100 mm x 75 mm	LM		50	
403.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
404.	Supply and install unpainted 200 mm G.I/Aluzinc gutters 24G x 300 mm half round	LM		50	
405.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 100 mm x 75 mm box gutter	LM		50	
406.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 24G x 100 mm x 75 mm box gutter	LM		50	
407.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 26G x 100 mm x 75 mm box gutter	LM		50	
408.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
409.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
410.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 80 mm diameter round	LM		20	
411.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 110 mm diameter round	LM		20	
412.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 110 mm diameter round	LM		20	
413.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 110 mm diameter round	LM		20	
414.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box gutter	LM		20	
415.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 120 mm box gutter	LM		20	
416.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 120 mm box gutter	LM		20	
417.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 150 mm x 75 mm box gutter	LM		20	

418.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 75 mm box gutter	LM		20	
419.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 75 mm box gutter	LM		20	
420.	Supply and install plastic rainwater goods gutters 140 mm diameter half round	LM		50	
421.	Supply and install plastic rainwater goods gutters 180 mm diameter half round	LM		50	
422.	Supply and install plastic rainwater goods in gutters of 250 mm diameter half round	LM		50	
423.	Supply and install extra over gutter for click-fit stop end 140 mm diameter	No.		10	
424.	Supply and install extra over gutter for click-fit stop end 180 mm	No.		10	
425.	Supply and install extra over gutter for click-fit stop end 250 mm	No.		10	
426.	Supply and install extra over gutter for click-fit gutter joint union 140 mm diameter	No.		12	
427.	Supply and install extra over gutter for click-fit gutter joint union 180 mm	No.		12	
428.	Supply and install extra over gutter for click-fit gutter joint union 250 mm	No.		12	
429.	Supply and install gutter support brackets 140 mm	No.		24	
430.	Supply and install gutter support brackets 180 mm	No.		24	
431.	Supply and install gutter support brackets 250 mm	No.		24	
432.	Supply and install click fit stop end with running outlet 140 mm x 75 mm	No.		12	
433.	Supply and install click fit stop end with running outlet 180 mm x 110 mm	No.		12	
434.	Supply and install click fit stop end with running outlet 250 mm x 160 mm	No.		12	
435.	Supply and install click fit running outlet 140 mm x 75 mm	No.		12	
436.	Supply and install click fit running outlet 180 mm x 110 mm	No.		12	
437.	Supply and install click fit running outlet 250 mm x 160 mm	No.		12	
438.	Supply and install plastic down pipes 160 mm diameter	No.		12	
439.	Supply and install plastic down pipes 110 mm	No.		10	
440.	Supply and install plastic down pipes 75 mm	No.		10	
441.	Supply and install down pipe shoe 160 mm diameter	No.		10	
442.	Supply and install down pipe shoe 110 mm	No.		10	

443.	Supply and install down pipe shoe 75 mm	No.		10	
444.	Supply and install down pipe bend 160 mm diameter	No.		20	
445.	Supply and install down pipe bend 110 mm	No.		20	
446.	Supply and install down pipe bend 75 mm	No.		20	
447.	Supply and install 2 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
448.	Supply and install 5 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
449.	Supply and install 10 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
450.	Provide scaffolding, set up to a height of maximum 20m and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days.	EA		1	
451.	Provide scaffolding, set up to a height of maximum 6m high and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days	EA		1	
	TOTAL ROOFING				
	CIVIL WORKS				
452.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 300 x 300 mm square	No.		4	
453.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 450 mm square	No.		4	
454.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular	No.		4	
455.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular – double seal	No.		4	
456.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular	No.		4	
457.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450	No.		4	

	x 600 mm rectangular double seal				
458.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
459.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square double seal	No.		4	
460.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
461.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 900 mm rectangular with solid cast iron cover	No.		4	
462.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular	No.		4	
463.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular double seal	No.		4	
464.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square	No.		4	
465.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square double seal	No.		4	
466.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with solid cast iron cover	No.		4	
467.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with concrete fill type cast iron cover	No.		4	
468.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with metal cover	No.		4	
469.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (circular base)	No.		4	
470.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (Sauge base)	No.		4	
471.	Supply and install razor wire 450 mm diameter	LM		30	

472.	Supply and install razor wire 730 mm diameter	LM		30	
473.	Supply and install razor wire 980 mm diameter	LM		30	
474.	Supply and install 100 mm compact marram path	SM		200	
475.	Supply and install 100 mm bed of stone sub-base blinded to receive paving slabs	SM		100	
476.	Supply and install 25 mm thick Hatari tiles in sizes 300 x 150 mm	LM		30	
477.	Supply and install 25 mm thick Hatari tiles in sizes 375 x 150 mm	LM		30	
478.	Supply and install 600 x 600 x 50 mm grey P.C paving slabs on 50 mm bed of sand/quarry dust	SM		100	
479.	Construct road formation and sub base 300 mm thick grade formation in approved imported murrum	SM		100	
480.	Construct road formation and sub base 150 mm murrum or stone sub-base blinded	SM		100	
481.	Construct road formation and sub base 100 mm water – bound macadam	SM		100	
482.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45N/mm ²	SM		100	
483.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45-50N/mm ²	SM		100	
484.	Supply and install pre-cast concrete paving blocks 80mm thick heavy duty (available patterns-quad, interlocking, Uni, hexagonal, E-T, diplomat, Décor, circlestone, lock block) paving blocks with a minimum strength of 49N/mm ²	SM		100	
485.	Construct tarmac layer 25 mm bitumen double seal	SM		100	
486.	Construct tarmac layer 30mm premix bituminous surfacing	SM		100	
487.	Supply and apply bituminous prime coat Mc 30 A4/K170 @0.5liters/M ²	SM		100	
488.	Supply and install 125 x 250 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
489.	Supply and install 125 x 100 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
490.	Supply and install 125 x 250 mm radii kerbs on concrete foundation (M.O.W. Type A)	LM		30	

491.	Supply and install Pre-cast concrete 250 x 450 x 450 mm quadrants	NO		20	
492.	Supply and install Pre-cast concrete 250 x 300 x 300 mm quadrants	NO		20	
493.	Supply and install 125x100 x 900 mm long channels	NO		10	
494.	Supply and install 125x250 mm channels	NO		10	
495.	Supply and install 125x100 mm radii channels	NO		10	
496.	Supply and install 125x250 mm radii channels	NO		10	
497.	Supply and install pre-cast concrete invert block drains 125mm x 250mm x 150mm internal diameter	LM		20	
498.	Supply and install pre-cast concrete invert block drains 190 mm x 330mm x 225mm internal diameter	LM		20	
499.	Supply and install pre-cast concrete invert block drains 760 mm x 355 mm x 300 mm internal diameter	LM		30	
500.	Supply and install pre-cast concrete invert block drains 225 mm x 450 mm x 300 mm internal diameter	LM		30	
501.	Supply and install pre-cast concrete invert block drains 175 mm x 800 mm shallow invert block drain (600 mm overall)	LM		30	
502.	Supply and install pre-cast concrete invert block drains 150 mm x 305 mm (450 mm overall)	LM		30	
503.	Supply and install pre-cast concrete side slabs 75 mm thick x 230 mm wide	LM		30	
	TOTAL CIVIL WORKS				
Third Option year Total					

B.3.7 FOURTH OPION YEAR PRICES

CLIN	Description of Service	Unit of Measure	Unit Price	Estimated Quantity	Total Estimated Price
	PAINTING SECTION (See C.2.1)				
1.	Scrape off all old paint, repair plaster, prime and smooth surface, apply one coat of interior primer or	SM		1000	

	under-coat paint on walls				
2.	Apply two finishing coats of silk vinyl paint on interior walls (first quality crown paints or equal) color as instructed	SM		1000	
3.	Apply two finishing coats of gloss paint on interior walls (first quality crown paints or equal) color soft white	SM		600	
4.	Scrap off old paint from ceiling and apply one coat of primer/under-coat.	SM		200	
5.	Apply two finishing coats of white emulsion (first quality paint from crown) to the ceiling	SM		200	
6.	Prepare and apply two coats of polyurethane varnish, to T&G surfaces (matt)	SM		300	
7.	Prepare and apply two finishing coats of first grade polyurethane varnish to T&G surface	SM		300	
8.	Scrape off all old paint prime from exterior and apply one coat of primer and at least two coats of emulsion paint	SM		600	
9.	Prepare and apply two coats of exterior super gloss first quality from crown paints or equal enamel	SM		500	
10.	Prepare surface, paint trim/baseboards, two coats using (lead-free) paint gloss finish (first quality crown paints or equal)	SM		600	
11.	Vanish trim/baseboards, two coats, polyurethane/matt finish paint	LM		600	
12.	Paint damaged surfaces (resin or plastic-based paint/penetrating primer or equal)	SM		600	
13.	Varnish/shellac (epoxy) of woodwork, following surface preparation polyurethane/matt finish	SM		600	
14.	Varnish woodwork, following surface preparation 2-pack finish	SM		600	
15.	Prepare surface and install wallpaper	SM		200	
16.	Undertake minor repair/replace loose wooden floor parquet	SM		300	
17.	Machine sand wooden floors and apply three coats of polyurethane finish	SM		300	
18.	Machine sand wooden floors and apply three coats of matt finish	SM		300	
19.	Undertake surface preparation and apply textured coating	SM		200	
20.	Paint textured surfaces, one coat (emulsion/gloss; spray application including floor coverings, etc.)	SM		250	
21.	Prepare surface and apply ceiling texture (spray application including floor coverings, etc.)	SM		250	

22.	Prepare all internal grill work including safe heaven door, casement windows and doors and apply at least two coats of matt finish paint	SM		50	
23.	Prepare all internal grill work including safe heaven door, casement windows, and doors and apply at least two coats of gloss paint	SM		50	
24.	Prepare and apply two coats of terracotta paint on the chimney surface	SM		100	
25.	Scrap and apply at least two coats of floor paint	SM		300	
26.	Prepare and apply at least two coats of terracotta paint on the exterior walls	SM		500	
	TOTAL PAINTING SECTION				
	PLUMBING SECTION (See C.2.5)				
27.	Check and test all plumbing fixtures and snake-out all interior drain lines including humidifier drain line	EA		1	
28.	Replace PPR pipe, w/pipe fitting, 1/2" dia	LM		50	
29.	Replace PPR pipe, w/pipe fitting, 3/4" dia	LM		50	
30.	Replace PPR pipe, w/pipe fitting, 1" dia	LM		50	
31.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
32.	Replace galv. Steel pipe, w/pipe fitting, 3/4" dia	LM		25	
33.	Replace galv. Steel pipe, w/pipe fitting, 1/2" dia	LM		25	
34.	Replace stand pipe and faucet with pegler or its equivalent bronze, 1/2" dia	EA		5	
35.	Replace stand pipe and faucet with pegler or its equivalent bronze, 3/4" dia	EA		5	
36.	Replace kitchen double sink faucet w/swing flexible wand style spout, American Standard 1802 or equivalent	SET		2	
37.	Replace kitchen sink, double bowl, stamped construction, burnished stainless steel finish	SET		2	
38.	Replace kitchen sink rinse sprayer w/hose	EA		2	
39.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
40.	Replace bottle trap for kitchen sink, 1- 1/2" (plastic)	EA		2	
41.	Replace P-trap for kitchen sink, 1-1/2" (chrome)	EA		2	
42.	Replace bottle trap for kitchen sink, 1-1/2" (plastic)	EA		2	
43.	Replace kitchen sink strainer 4" opening	EA		2	
44.	Replace kitchen sink strainer 3" opening	EA		2	
45.	Replace kitchen sink drain line Non-metallic, 1-1/2" dia w/adapter	LM		2	
46.	Replace kitchen sink drain line metallic, 1-1/2" dia	LM		2	

	w/adapter				
47.	Replace bathroom sink with swing flexible, with wand lever type faucet, water & drain line connection with American Standard 1802 or equal	SET		4	
48.	Replace dhobi sink faucet with swing flexible with one style spout (American Standard 1802 or equal)	SET		2	
49.	Replace bathroom sink with Daelim KL 237 or equal	EA		4	
50.	Replace toilet, V.C. elongated type with low tank Water & drain line connection with Daelim CC 303 or equal	SET		4	
51.	Replace toilet seat with slow closing cover	EA		4	
52.	Replace shower head and mixing valve assembly including water line connection (cobra or equivalent)	SET		4	
53.	Replace shower mixer (cobra or equivalent)	EA		4	
54.	Replace shower head 1-1/2" (cobra or equivalent)	EA		4	
55.	Replace cold water line, PPR piping, with fittings and 1" hanger	LM		4	
56.	Replace cold water line, PPR piping, with fittings and 3/4" hanger	LM		20	
57.	Replace cold water line, PPR piping, with fittings and 1/2" hanger	LM		20	
58.	Replace hot water line, GI fittings and 1/2" hanger	LM		10	
59.	Replace hot water line, GI fittings and 3/4" hanger	LM		10	
60.	Replace hot water line, GI fittings and 1" hanger	LM		10	
61.	Replace drain and sewer piping with 2" composite fittings	LM		20	
62.	Replace drain and sewer piping with 6" composite fittings	LM		20	
63.	Replace 60"x32" enameled cast iron bath tub with shower set and mixing water faucet including water and drain line connection with Bette Form 3620 or equivalent	SET		4	
64.	Remove and reinstall bath tub and clean out drain and properly connect bathtub drain after leak repair and undertake the necessary associated surface adjustments	EA		4	
65.	Replace floor drain 4" dia	EA		4	
66.	Replace floor drain 6" dia	EA		4	
67.	Replace clean out 4" dia	EA		4	
68.	Replace clean out 6" dia	EA		4	
69.	Supply and install shower cubical enclosure with tempered glass panel (1400 mm x 1400 mm x 2150	SET		4	

	mm)				
70.	Supply and install chrome plated toilet roll holder (wall mounted)	EA		4	
71.	Supply and install chrome plated soap holder (wall mounted)	EA		4	
72.	Supply and install chrome plated (wall mounted) 600 mm towel holder	EA		4	
73.	Supply and install two fold advent wash basin and pedestal	EA		4	
74.	Supply and install basin mixture (make; Bricon or equivalent)	EA			
75.	Supply and install low level ceramic cistern and associated fittings	EA		4	
76.	Supply and install squatting WC pan (Twyford)	EA		2	
77.	Supply and install dhobi sink (410 mm x 510 mm by 610 mm)	EA		2	
78.	Supply and install 406 mm diameter round sink (stainless steel)	EA		2	
79.	Supply and install rectangular sink of 1000 mm x 500 mm single bowl single drain (stainless steel)	EA		2	
80.	Supply and install rectangular sink of 1450 mm x 520 mm single bowl double drain (stainless steel)	EA		2	
81.	Supply and install rectangular sink of 200 mm x 500 mm single bowl double drain (stainless steel)	EA		2	
82.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (2 feet)	EA		4	
83.	Supply and install 1150 mm high stainless steel slab urinal complete with fittings (6 feet)	EA		4	
84.	Supply and install Twyford clifton urinal range consisting of: cistern, pipework, urinal poll waste and divider	EA		4	
85.	Supply and install solar water heater 300L capacity complete with installation kit	EA		4	
86.	Supply and install solar water heater 200L capacity complete with installation kit	EA		4	
87.	Supply and replace solar heater booster element (3KW) complete with the thermostat	EA		2	
88.	Supply and replace solar heater booster element (1.5KW) complete with the thermostat	EA		2	
89.	Supply and install uPVC water tank 24000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
90.	Supply and install uPVC water tank 10000L complete with associated fittings (including gate	EA		1	

	valve, elongated nipple, ball valve)				
91.	Supply and install uPVC water tank 5000L complete with associated fittings (including gate valve, elongated nipple, ball valve)	EA		1	
92.	Supply and install composite man-hole covers (450 by 600) heavy duty	EA		5	
93.	Supply and install pressure release valve 6 bars	EA		4	
94.	Supply and install BMST 7 water heater thermostats	EA		6	
95.	Replace basket strainer 4"	EA		4	
96.	Replace basket strainer 6"	EA		4	
97.	Supply and install 1.5KW emersion heater	No.		6	
98.	Supply and install 2.0KW emersion heater	No.		6	
99.	Supply and install 3.0KW emersion heater	No.		6	
100.	Supply and install hot water tank of 40gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
101.	Supply and install hot water tank of 30gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
102.	Supply and install hot water tank of 20gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
103.	Supply and install hot water tank of 15gal complete with BMST thermostat, Pressure Temperature relief valve, pipe work, associated fittings as per provided SOW	EA		2	
	TOTAL PLUMBING				
	ELECTRICAL SECTION (See C.2.4)				
104.	Supply and replace enclosed consumer unit complete with all applicable protection devices (6 – way) (Crabtree or equivalent)	EA		2	
105.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 9 way	EA		2	

	(Crabtree or equivalent)				
106.	Supply and replace single phase 240V, 80/100Amps enclosed consumer unit, complete with all applicable protection devices 12 way (Crabtree or equivalent)	EA		2	
107.	Supply and install a 3 phase 415V, 100Amps DFB complete with all applicable protection devices (Crabtree or equivalent)	EA		1	
108.	Replace earth electrode bare copper 5ft and 7ft AWG	LM		2	
109.	Supply and replace grounding wire bare copper 4 mm -6 mm AWG	M		20	
110.	Supply and replace fluorescent light fixture, 2ft, 240V, 20W (diffused)	EA		10	
111.	Supply and replace hallway/bedroom light fixture (full moon or 2D – 28wt or its equivalent)	EA		12	
112.	Supply and replace diffused fluorescent light fixture, 1/100 watt, weather proof	EA		10	
113.	Installation of flood light fixture (fixture will be furnished by government)	EA		12	
114.	Supply and install 240V, 6-arm dining room chandelier with lights	EA		2	
115.	Replace enclosed light fixture (2D 16 W) or its equivalent	EA		12	
116.	Replace bathroom vanity light	EA		4	
117.	Installation of recessed fluorescent light fixture in the kitchen	EA		2	
118.	Replace GFCI 10mA x 240V socket outlet	EA		15	
119.	Replace GFCI 10mA x 240V circuit breaker	EA		15	
120.	Supply and replace doorbell 5Ax240V	EA		1	
121.	Supply and install wireless doorbell (battery operated)	EA		1	
122.	Supply and replace dimmer switch, 600 watt for incandescent light (GFP)	EA		6	
123.	Replace buzzer DC 6V with chime bell, AC 100V (GFP)	EA		1	
124.	Supply and install PVC adapter boxes, 4" SQ	EA		20	
125.	Supply and install PVC adapter boxes, 2"x4"	EA		20	
126.	Replace flexible conduit pipe 20mm diameter	LM		50	
127.	Replace flexible conduit pipe 25mm diameter	LM		50	
128.	Replace flexible conduit pipe 32mm diameter	LM		50	
129.	Supply and replace double pole integral switches 100A	EA		2	
130.	Supply and replace double pole integral switches	EA		2	

	60A				
131.	Replace programmable thermostat for heating and cooling (GFP)	EA		2	
132.	Supply and install single core PVC unsheathed cables 1.5mm (East Africa cables or equivalent)	LM		30	
133.	Supply and install single core PVC unsheathed cables 2.5mm (East Africa cables or equivalent)	LM		30	
134.	Supply and install single core PVC unsheathed cables 4.0mm (East Africa cables or equivalent)	LM		30	
135.	Supply and install single core PVC unsheathed cables 6.0mm (East Africa cables or equivalent)	LM		30	
136.	Supply and install single core PVC unsheathed cables 10mm (East Africa cables or equivalent)	LM		30	
137.	Supply and install single core PVC unsheathed cables 16mm (East Africa cables or equivalent)	LM		30	
138.	Supply and install three core 1.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
139.	Supply and install three core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
140.	Supply and install four core 2.5mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
141.	Supply and install four core 6mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
142.	Supply and install four core 10mm still armored cable unbraided cable	LM		25	
143.	Supply and install four core 16mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		25	
144.	Supply and install four core 125mm still armored cable unbraided cable (East Africa cables or equivalent)	LM		10	
145.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (20 mm)	LM		25	
146.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (25 mm)	LM		25	
147.	Supply and install heavy gauge PVC conduit including: bends, saddles, boxes and any other accessories (32 mm)	LM		25	

148.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (20 mm)	LM		25	
149.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories.(25 mm)	LM		25	
150.	Supply and install heavy gauge metallic conduit including bends, saddles, boxes and any other accessories (32 mm)	LM		25	
151.	Supply and replace 1 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
152.	Supply and replace 2 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
153.	Supply and replace 3 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
154.	Supply and replace 4 gang, 2 way metal clad switches (Crabtree or equivalent)	EA		10	
155.	Supply and replace 1 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
156.	Supply and replace 2 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
157.	Supply and replace 3 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
158.	Supply and replace 4 gang, 2 way ordinary switches (Crabtree or equivalent)	EA		10	
159.	Remove/reinstall existing electric outlets (sockets)	EA		5	
160.	Replace enclose circuit breakers 10A, 20A, 30A, 40A, 60A in existing panel board	EA		5	
161.	Supply and install single socket 13A (ordinary)	EA		5	
162.	Supply and install twin socket 13A (ordinary)	EA		5	
163.	Supply and install single socket 15A (ordinary)	EA		5	
164.	Supply and install 13A metal clad sockets	EA		5	
165.	Supply and install 15A metal clad sockets	EA		5	
166.	Supply and install twin socket 13A metallic	EA		5	
167.	Supply and install wall light fixtures (half-moon)	EA		10	
168.	Clean the diffusers for all the light fixtures	EA		10	
169.	Supply and install ceiling fan 4-5 blades (hunters or equivalent 240V-50HZ)	EA		4	
170.	Supply and install flat plate DP switch (45ADP cooker unit with neon) Crabtree or equivalent	EA		2	
171.	Supply and install 6WX240V decoster bulbs (warm white)	EA		24	
172.	Supply and install 24 hr. timer 240V 50HZ	EA		2	
173.	Supply and install photo cell fitting 240V,10A	EA		2	

174.	Supply and install exhaust fan (240V/50HZ, 200 mm dia.)	SM		4	
175.	Supply and install exhaust fan (250V/50HZ, 200 mm dia.)	SM		4	
176.	Replace residential type range hood, including exhaust fan, 160 CFM, 1/8HP, 42"L x18"W x 6"H (GFP)	EA		1	
	TOTAL ELECTRICAL				
	CARPENTRY SECTION (See C.2.7)				
177.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, two coats of paint (9 mm board)	SM		200	
178.	Supply and install double board gypsum wall complete with stands, insulation associated fasteners, filler work, surface preparation and three coats of paint on a 12 mm board	SM		200	
179.	Supply and install suspended ceiling wood or metal support frame for drop ceiling complete with galvanized annealed iron suspension and other associated fasteners	LM		300	
180.	Supply and install acoustic ceiling tiles (600 x 600 mm x1 6 mm) – smooth	SM		200	
181.	Supply and install acoustic ceiling tiles (600 x 600 mm x 16 mm) – coarse	SM		50	
182.	Supply and install wood blundering 50mm x 50mm thick spaced 600 mm c/c seasoned soft wood	LM		50	
183.	Replace CMU wall cracks-chip off, 1" thick v-joint and seal w/mortar to match existing wall	LM		100	
184.	Replace 1" x 4" wood baseboard (seasoned hard wood) and prepare surface for painting or varnishing as applicable	LM		100	
185.	Replace 1" x 4" wood baseboard (seasoned soft wood) and prepare surface for painting or varnishing as applicable	LM		100	
186.	Replace vinyl cove base, 4" to 6" high	LM		50	
187.	Replace ceiling cornices (wooden)	LM		200	
188.	Replace ceiling cornices (PVC)	LM		200	
189.	Fabricate and install mahogany 2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screens	SM		20	
190.	Fabricate and install sliding aluminum frames	SM		20	

	2"x1" framed window screens inclusive of all brass fixtures (hinges, locks, handles) and aluminum screen				
191.	Replace worn out aluminum insect screens on wooden frame	SM		20	
192.	Replace worn out aluminum insect screens on aluminum frame	SM		20	
193.	Replace vinyl composition tile floor, 12"x12"x1/8" thick	SM		100	
194.	Repair metal garden gates , approx. 3ft x 5ft	EA		1	
195.	Replace metal garden gates , approx. 3ft x 5ft	EA		1	
196.	Supply and replace 50 mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall	EA		4	
197.	Supply and replace 50mm thick semi – solid cored flush door shutter size 820 mm x 2060 mm overall mahogany veneered both sides	EA		4	
198.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1500 mm x 2060 mm high	EA		4	
199.	Supply and replace 50 mm thick semi – solid cored ordinary double door size 1820 mm x 2060 mm high	EA		4	
200.	Supply and replace 50 mm thick solid cored ordinary flush door shatter size 1820 mm x 2060 mm high	EA		4	
201.	Supply and replace 50 mm thick solid cored ordinary flush door mahogany veneered size 1820 mm x 2060 mm high	EA		4	
202.	Supply and install 50 mm thick mahogany door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
203.	Supply and install 50 mm thick mvule door leaf size 820 mm x 2060 mm overall with fielded raised panels	EA		4	
204.	Supply and install 100 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
205.	Supply and install 150 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
206.	Supply and install 200 mm x 50 mm rebated wrought mahogany door frame with rounded edges	LM		4	
207.	Supply and install 100 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
208.	Supply and install 150 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	

209.	Supply and install 200 x 50 mm rebated wrought cypress door frame with rounded edges	LM		4	
210.	Supply and install 50 x 25 mm architrave	LM		20	
211.	Supply and install 15 mm quadrants	LM		15	
212.	Replace low profile aluminum threshold , 4"-6"	EA		10	
213.	Supply and install absolute black double beveled threshold 4"-6" x 36" x 5/8" beveled sides and top polished	EA		10	
214.	Replace door stopper and holder	EA		5	
215.	Supply and install door closer heavy duty CUSH-N- STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
216.	Supply and install door closer residential duty CUSH-N-STOP parallel arm closer adjustable from size 1 – 6 (union or equivalent)	EA		5	
217.	Supply and replace mortise door lockset (2 lever)	EA		5	
218.	Supply and replace mortise door lockset (3 lever)	EA		5	
219.	Supply and replace mortise door lockset (4 lever)	EA		5	
220.	Supply and replace mortise door lockset (5 lever)	EA		5	
221.	Supply and install steel door locks union or equivalent (3 lever)	EA		5	
222.	Supply and install rim lock (viro or equivalent)	EA		5	
223.	Supply and install 4 lever cupboard lock union or equivalent	EA		10	
224.	Supply and install cylinder night latch	EA		2	
225.	Supply and install 3 lever sliding door lock	EA		5	
226.	Duplicate key (Yale)	EA		10	
227.	Duplicate key (Union Mortise)	EA		10	
228.	Duplicate key (Double bitted key)	EA		5	
229.	Supply and install lockset for interior door with keyless type	EA		5	
230.	Replace hinge butt, 4" (pressed steel)	PR		16	
231.	Replace hinge butt, 4" (aluminum)	PR		16	
232.	Replace hinge butt, 4" (bronze)	PR		16	
233.	Replace hinge butt, 4" (steel)	PR		16	
234.	Replace hinge butt, 5" (pressed steel)	PR		16	
235.	Replace hinge butt, 5" (aluminum)	PR		16	
236.	Replace hinge butt, 5" (bronze)	PR		16	
237.	Replace hinge butt, 5" (steel)	PR		16	
238.	Replace hinge butt, 3" (pressed steel)	PR		16	
239.	Replace hinge butt, 3" (aluminum)	PR		16	
240.	Replace hinge butt, 3" (bronze)	PR		16	
241.	Replace hinge butt, 3" (steel)	PR		16	
242.	Supply and install door sweeper	LM		10	

243.	Supply and install malpa hinges	EA		20	
244.	Supply and install piano hinges	LM			
245.	Supply and install low level (base) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, drawers, hardware, doors and toe kick. Face made of high quality solid wood, well-seasoned mvule/mahogany; interiors made of block board	SM		15	
246.	Supply and install high level (wall) cabinets (900 mm x 900 mm x 600 mm) complete with 2 shelves, hardware, and doors. Face made of high quality solid wood, well-seasoned mvule/mahogany. Interiors made of block board	SM		15	
247.	Supply and replace closet door ball catcher	EA		20	
248.	Supply and install window clear glass 5 mm thick	SM		10	
249.	Supply and install frosted window glass (5 mm thick)	SM		10	
250.	Supply and install translucent window glass (5 mm thick)	SM		5	
251.	Supply and replace window fastener (brass) pairs	EA		12	
252.	Supply and replace window stay (brass) pairs	EA		12	
253.	Replace stainless steel (SST) shower curtain/closet rod, 1" dia including accessories	LM		10	
254.	Replace stainless steel (SST) shower curtain/closet rod, 3/4" dia including accessories	LM		10	
255.	Replace stainless steel robe hook	EA		12	
256.	Replace brass robe hook	EA		12	
257.	Replace stainless steel grab bar (1 inch diameter) complete with accessories	LM		12	
258.	Replace vanity cabinet incl. 700 mm W x 490 mm D x 760 mm H	EA		4	
259.	Replace medicine cabinet SAJM3207 approximately (150 mm x 600 mm x 600) with internal and external mirrors	EA		2	
260.	Supply and install 12 mm thick wood blocks mahogany	SM		20	
261.	Supply and install 12 mm thick wood blocks cyprus	SM		20	
262.	Supply and install 12 mm thick wood blackwood center square	SM		20	
263.	supply and install T&G ceiling from cyprus	SM		100	
264.	Supply and install brass tower bolt (50 mm)	EA		12	
265.	Supply and install brass tower bolt (75 mm)	EA		12	
266.	Supply and install brass tower bolt (100 mm)	EA		12	
267.	Supply and install brass tower bolt (150 mm)	EA		12	

268.	Supply and install brass tower bolt (200 mm)	EA		12	
269.	Supply and install aluminum tower bolt (50 mm)	EA		12	
270.	Supply and install aluminum tower bolt (75 mm)	EA		12	
271.	Supply and install aluminum tower bolt (100 mm)	EA		12	
272.	Supply and install aluminum tower bolt (150 mm)	EA		12	
273.	Supply and install aluminum tower bolt (200 mm)	EA		12	
274.	Supply and install 25 mm thick plain block board	SM		12	
275.	Supply and install 25mm thick block board mahogany veneered one side	SM		14.4	
276.	Supply and install 25mm thick block board mahogany veneered both sides	SM		14.4	
277.	Provide and install shoring on a shown location	SM		100	
278.	Supply and install hoarding on a shown location	SM		100	
279.	Supply and install 6 mm plywood	SM		14.4	
280.	Supply and install 1.6 mm plain color "formica sheeting"	SM		14.4	
281.	Supply and install 18 mm MDF boards	SM		14.4	
282.	Supply and install 3 mm thick MDF board	SM		14.4	
283.	Supply and install 6 mm thick MDF board	SM		14.4	
284.	Supply and install 4 mm clear mirrors	SM		2.88	
285.	Supply and install 5 mm polished plate glass mirror	SM		2.88	
286.	Supply and install 6 mm polished plate glass mirror	SM		2.88	
287.	Supply and install 5 mm bronze mirror	SM		2.88	
288.	Supply and install 600 mm x 450 mm x 6 mm thick polished plate glass mirror with beveled and smoothed edges and drilled four times for and including fixing to plugged wall or timber with mild steel screws and dome shaped chromium plated screw covers	No.		4	
289.	Supply and install 5 mm polished plate glass one way mirror	SM		4	
290.	Supply and install 5 mm thick x 150 mm wide louvre blades with polished edges clear sheet	LM		40	
291.	Supply and install 200 x 20 mm fascia board including 3 coats of emulsion paint	LM		40	
	TOTAL CARPENTRY				
	MASONRY (See C.2.9)				
292.	Repair cracks concrete stoop-chip off 1" wide v-joint 7 seal with cement grout	LM		20	
293.	Construct wall, 8" thick	SM		100	
294.	Construct wall, 4" thick	SM		100	

295.	Construct red brick wall, 8" thick	SM		100	
296.	Supply and install counter granite 20 mm thick by 600 mm wide (black galaxy)	LM		100	
297.	Supply and install counter granite 20 mm thick by 600 mm wide (red)	LM		10	
298.	Supply and install counter granite 20 mm thick by 600 mm white (platinum white)	LM		10	
299.	Supply and install counter granite 20 mm thick by 600 mm wide (galaxy white)	LM		10	
300.	Supply and install counter granite 20 mm thick by 600 mm wide (absolute black)	LM		10	
301.	Supply and install counter granite 20 mm thick by 600 mm wide (China pink)	LM		10	
302.	Supply and install counter granite 20 mm thick by 600 mm wide (golden pearl)	LM		10	
303.	Supply and install counter granite 20 mm thick by 600 mm wide (paradiso)	LM		10	
304.	Supply and install ceramic floor tiles 300 x 300 mm	SM		200	
305.	Supply and install Non-skid porcelain floor tiles 600 x 600 mm	SM		200	
306.	Supply and install granito floor tiles 600 x 600 mm	SM		200	
307.	Supply and install ceramic wall tiles 300 x 300 mm	SM		250	
308.	Supply and install Non-skid porcelain wall tiles 600 x 600	SM		300	
309.	Supply and install granito wall tiles 600 x 600 mm	SM		100	
310.	Supply and install mosaic tiles	SM		100	
311.	Supply and install mazeras cladding (cut)	SM		300	
312.	Supply and install mazeras cladding (natural edges)	SM		300	
313.	Supply specialized labor for general work including demolition, cart away, construction, trenching, painting, caulking	HRS		80	
314.	Clean entire height of chimney with purpose made tools/brushes before internal work is done. Ensure fire place is temporarily closed off to prevent soot entering the house	EA		1	
315.	Replace caulking for bathrooms and kitchen	LM		200	
316.	Install clients supplied tiles	SM		100	
317.	Undertake wire brushing to stone walling	SM		400	
318.	Undertake sandblasting to surfaces of concrete walls/columns or beams	SM		200	
319.	Construct plaster work 15 mm thick two coat cement sand (1:4) plaster trowelled smooth and comprising 12 mm backing and 3 mm fishing coat	SM		100	

320.	Construct 15 mm thick cement sand (1:3) backing plaster to walls to receive tilling	SM		100	
	TOTAL MASONRY				
	ROOFING SECTION (See C.2.6)				
321.	Repair and replace leaky roof including membrane and wood (clay roof tiles)	SM		300	
322.	Replace old rain gutter and downspout PVC	LM		30	
323.	Replace old rain Galvanized gutters	LM		30	
324.	Supply and install bituminous roofing felts 3-layer felt (14:14:38 kg/10 m) with mineral surface	SM		300	
325.	Supply and install bituminous 200 mm flashing	LM		50	
326.	Supply and install waterproofing rain base osmotic waterproofing for concrete (as per Italbuid imports)	SM		200	
327.	Supply and install waterproofing rain block osmotic waterproofing for concrete (as per Italbuid imports)	LM		100	
328.	Supply and install waterproofing rain Elastic Extra "E" – acrylic liquid membrane for general w/p (as per Italbuid imports)	SM		200	
329.	Supply and install sirrah P GR 4kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
330.	Supply and install sirrah P GR 5kg/sm APP bituminous membrane (as per Italbuid imports)	SM		200	
331.	Supply and install tefond plus – high density polyethylene membrane (as per italbuid imports)	SM		200	
332.	Supply and install guttafo N 140 under layer for tiled roofs (as per Italbuid imports)	SM		200	
333.	Supply and install guttafo N 160 under layer for tiled roofs (as per Italbuid imports)	SM		200	
334.	Supply and install flat roofing finishes Sirrah P GR 4kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
335.	Supply and install flat roofing finishes Sirrah P GR 5kg/sm – APP bituminous membrane (as per Italbuid imports)	SM		200	
336.	Supply and install pre-painted GI and alu-zinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 22G	SM		300	
337.	Supply and install pre-painted GI and aluzinc sheet	SM		300	

	metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 24G				
338.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 26G	SM		300	
339.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 28G	SM		200	
340.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 30G	SM		250	
341.	Supply and install pre-painted GI & aluzinc sheet metal roofing N.C 11/3 corrugated sheets and BP760 boxed profiled sheets (effective 762 mm wide) 32G	SM		250	
342.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 22 g	SM		250	
343.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 24 g	SM		250	
344.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 26 g	SM		250	
345.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 28 g	SM		250	
346.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 30 g	SM		250	
347.	Supply and install IT5/BP950 profiled sheets 906 mm wide (857 mm effective cover) 32 g	SM		250	
348.	supply and install plain sheets 960 mm wide 22 gauge	SM		300	
349.	supply and install plain sheets 960 mm wide 24 gauge	SM		300	
350.	supply and install plain sheets 960 mm wide 26 gauge	SM		300	
351.	supply and install plain sheets 960 mm wide 28 gauge	SM		300	
352.	supply and install plain sheets 960 mm wide 30 gauge	SM		300	
353.	Supply and install mini-corrugation-mc 699 30 gauge	SM		300	
354.	Supply and install tile roof support hot dipped	SM		300	

	galvanized chicken wire 22 gauge 914 mm high with mesh size 25 mm				
355.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 914 mm high with mesh size 40 mm	SM		300	
356.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 25 mm mesh	SM		300	
357.	Supply and install tile roof support hot dipped galvanized chicken wire 22 gauge 1828 mm high with 40 mm mesh	SM		300	
358.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22G x 380 MM	SM		300	
359.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
360.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
361.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 22 G X 570mm	LM		50	
362.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 24 G	LM		50	
363.	Supply and install flashing pre-painted 200 mm G.I./aluzinc flashing 26 G	LM		50	
364.	Supply and install clay roofing tiles interlocking clay tiles size 400 x 250 x 50 mm x 3.1kg/unit	SM		200	
365.	Supply and install Roman clay tiles size 375 x 150 x 66 mm	SM		200	
366.	Supply and install Brosley plain clay tiles size 250 mm x 150 mm x 15 MM	SM		200	
367.	Supply and install Portuguese clay tiles size 41 x 190 x 14 mm	SM		200	
368.	Supply and install slip tiles size 300 x 175 x 50 mm used on mabati sheets	SM		200	
369.	Supply and install Harvey roofing tiles 1700 x 397 mm Elite and Tufftile-Acrylic	SM		200	
370.	Supply and install stone coat	SM		300	
371.	Supply and install Harvey roofing 1700 x 397 mm Romantile, shaketile and academy tile - acrylic stone coat	SM		200	
372.	Supply and install Harvey roofing stone coat	SM		200	
373.	Supply and install dura tile(stone coated) 1690 x 397 mm, Dura tile, Elite 0.45 mm thick	SM		200	
374.	Supply and install dura tile (stone coated) 1710 x 398 mm, Durama tiles, 0.45 mm thick	SM		200	

375.	Supply and install dura tile (stone coated) roll top ridges, 1.8 mts length	LM		50	
376.	Supply and install dura tile accessories 1720 mm Angle Ridge cap	LM		50	
377.	Supply and install dura tile accessories 580 mm angle hip cap	LM		50	
378.	Supply and install dura tile accessories 170 mm cover flashings	LM		50	
379.	Supply and install dura tile accessories 1550 mm barge board covers	LM		50	
380.	Supply and install dura tile accessories 1550 mm side wall flashings	LM		30	
381.	Supply and install UPVC carbon fiber roof sheets as dura roofing products	LM		30	
382.	Supply and install carbon fiber UPVC sheets, 2.0 mm thick	SM		50	
383.	Supply and install carbon fiber UPVC sheets, 2.5 mm thick	SM		50	
384.	Supply and install carbon fiber UPVC sheets, 3.0 mm thick	SM		50	
385.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters	LM		50	
386.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
387.	Supply and install rain water goods pre-painted 200 mm G.I/Alu-zinc gutters 24G x 300 mm half round	LM		50	
388.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 26G x 300 mm half round	LM		50	
389.	Supply and install water goods pre-painted 200 mm G.I/Alu-zinc gutters 22G x 100 x 75 mm box gutter	LM		50	
390.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
391.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
392.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 80 mm diameter round	LM		20	
393.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm diameter round	LM		20	
394.	Supply and install water goods pre-painted	LM		20	

	G.I/Alu-zinc 24G x 100 mm diameter round				
395.	Supply and install water goods pre-painted G.I/Alu-zinc 26G x 100 mm diameter round	LM		20	
396.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box round	LM		20	
397.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 150 mm x 120 mm	LM		50	
398.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 150 mm x 120 mm	LM		50	
399.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box gutter	LM		50	
400.	Supply and install water goods pre-painted G.I/Alu-zinc downpipes 22G x 100 mm x 75 mm box round	LM		20	
401.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 24G x 100 mm x 75 mm	LM		50	
402.	Supply and install water goods pre-painted G.I/Alu-zinc box gutter 26G x 100 mm x 75 mm	LM		50	
403.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 300 mm half round	LM		50	
404.	Supply and install unpainted 200 mm G.I/Aluzinc gutters 24G x 300 mm half round	LM		50	
405.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 22G x 100 mm x 75 mm box gutter	LM		50	
406.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 24G x 100 mm x 75 mm box gutter	LM		50	
407.	Supply and install unpainted 200 mm G.I/Alu-zinc gutters 26G x 100 mm x 75 mm box gutter	LM		50	
408.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 80 mm diameter round	LM		20	
409.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 80 mm diameter round	LM		20	
410.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 80 mm diameter round	LM		20	
411.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 110 mm diameter round	LM		20	
412.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 24G x 110 mm diameter round	LM		20	
413.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 110 mm diameter round	LM		20	
414.	Supply and install unpainted 100mm G.I/Alu-zinc downpipes 22G x 150 mm x 120 mm box gutter	LM		20	

415.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 120 mm box gutter	LM		20	
416.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 120 mm box gutter	LM		20	
417.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 22G x 150 mm x 75 mm box gutter	LM		20	
418.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 24G x 150 mm x 75 mm box gutter	LM		20	
419.	Supply and install unpainted 100 mm G.I/Alu-zinc downpipes 26G x 150 mm x 75 mm box gutter	LM		20	
420.	Supply and install plastic rainwater goods gutters 140 mm diameter half round	LM		50	
421.	Supply and install plastic rainwater goods gutters 180 mm diameter half round	LM		50	
422.	Supply and install plastic rainwater goods in gutters of 250 mm diameter half round	LM		50	
423.	Supply and install extra over gutter for click-fit stop end 140 mm diameter	No.		10	
424.	Supply and install extra over gutter for click-fit stop end 180 mm	No.		10	
425.	Supply and install extra over gutter for click-fit stop end 250 mm	No.		10	
426.	Supply and install extra over gutter for click-fit gutter joint union 140 mm diameter	No.		12	
427.	Supply and install extra over gutter for click-fit gutter joint union 180 mm	No.		12	
428.	Supply and install extra over gutter for click-fit gutter joint union 250 mm	No.		12	
429.	Supply and install gutter support brackets 140 mm	No.		24	
430.	Supply and install gutter support brackets 180 mm	No.		24	
431.	Supply and install gutter support brackets 250 mm	No.		24	
432.	Supply and install click fit stop end with running outlet 140 mm x 75 mm	No.		12	
433.	Supply and install click fit stop end with running outlet 180 mm x 110 mm	No.		12	
434.	Supply and install click fit stop end with running outlet 250 mm x 160 mm	No.		12	
435.	Supply and install click fit running outlet 140 mm x 75 mm	No.		12	
436.	Supply and install click fit running outlet 180 mm x 110 mm	No.		12	
437.	Supply and install click fit running outlet 250 mm x 160 mm	No.		12	

438.	Supply and install plastic down pipes 160 mm diameter	No.		12	
439.	Supply and install plastic down pipes 110 mm	No.		10	
440.	Supply and install plastic down pipes 75 mm	No.		10	
441.	Supply and install down pipe shoe 160 mm diameter	No.		10	
442.	Supply and install down pipe shoe 110 mm	No.		10	
443.	Supply and install down pipe shoe 75 mm	No.		10	
444.	Supply and install down pipe bend 160 mm diameter	No.		20	
445.	Supply and install down pipe bend 110 mm	No.		20	
446.	Supply and install down pipe bend 75 mm	No.		20	
447.	Supply and install 2 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
448.	Supply and install 5 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
449.	Supply and install 10 mm closed cell polyethylene with aluminum foam laminate double reflective foil (40kg/m3)	SM		300	
450.	Provide scaffolding, set up to a height of maximum 20m and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days.	EA		1	
451.	Provide scaffolding, set up to a height of maximum 6m high and 10m wide unit. Complete with specialized labor and associated safety features on a shown location for seven days	EA		1	
	TOTAL ROOFING				
	CIVIL WORKS				
452.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 300 x 300 mm square	No.		4	
453.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 450 mm square	No.		4	
454.	Supply and install rectangular C.I manhole cover and frame for sewers light duty (grade C) 450 x 600 mm rectangular	No.		4	
455.	Supply and install rectangular C.I manhole cover	No.		4	

	and frame for sewers light duty (grade C) 450 x 600 mm rectangular – double seal				
456.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular	No.		4	
457.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 450 x 600 mm rectangular double seal	No.		4	
458.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
459.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square double seal	No.		4	
460.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 600 mm square	No.		4	
461.	Supply and install rectangular C.I manhole cover and frame for sewers medium duty (grade B) 600 x 900 mm rectangular with solid cast iron cover	No.		4	
462.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular	No.		4	
463.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 450 x 600 mm rectangular double seal	No.		4	
464.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square	No.		4	
465.	Supply and install rectangular C.I manhole cover and frame for sewers heavy duty (grade A) 600 x 600 mm square double seal	No.		4	
466.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with solid cast iron cover	No.		4	
467.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with concrete fill type cast iron cover	No.		4	
468.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 500 mm diameter – with metal cover	No.		4	
469.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains	No.		4	

	600 mm diameter – with solid C.I cover (circular base)				
470.	Supply and install medium duty triangular C.I manhole cover and frame for storm water drains 600 mm diameter – with solid C.I cover (Sauge base)	No.		4	
471.	Supply and install razor wire 450 mm diameter	LM		30	
472.	Supply and install razor wire 730 mm diameter	LM		30	
473.	Supply and install razor wire 980 mm diameter	LM		30	
474.	Supply and install 100 mm compact marram path	SM		200	
475.	Supply and install 100 mm bed of stone sub-base blinded to receive paving slabs	SM		100	
476.	Supply and install 25 mm thick Hatari tiles in sizes 300 x 150 mm	LM		30	
477.	Supply and install 25 mm thick Hatari tiles in sizes 375 x 150 mm	LM		30	
478.	Supply and install 600 x 600 x 50 mm grey P.C paving slabs on 50 mm bed of sand/quarry dust	SM		100	
479.	Construct road formation and sub base 300 mm thick grade formation in approved imported murrum	SM		100	
480.	Construct road formation and sub base 150 mm murrum or stone sub-base blinded	SM		100	
481.	Construct road formation and sub base 100 mm water – bound macadam	SM		100	
482.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45N/mm ²	SM		100	
483.	Supply and install pre-cast concrete paving blocks 60 mm thick medium duty (available choice-quad, interlocking, uni, hexagonal, E-T, diplomat, décor, circlestone, lockblock) paving blocks with a minimum strength of 45-50N/mm ²	SM		100	
484.	Supply and install pre-cast concrete paving blocks 80mm thick heavy duty (available patterns-quad, interlocking, Uni, hexagonal, E-T, diplomat, Décor, circlestone, lock block) paving blocks with a minimum strength of 49N/mm ²	SM		100	
485.	Construct tarmac layer 25 mm bitumen double seal	SM		100	
486.	Construct tarmac layer 30mm premix bituminous surfacing	SM		100	
487.	Supply and apply bituminous prime coat Mc 30	SM		100	

	A4/K170 @0.5liters/M2				
488.	Supply and install 125 x 250 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
489.	Supply and install 125 x 100 mm straight kerbs on concrete foundation (M.O.W. Type A)	LM		30	
490.	Supply and install 125 x 250 mm radii kerbs on concrete foundation (M.O.W. Type A)	LM		30	
491.	Supply and install Pre-cast concrete 250 x 450 x 450 mm quadrants	No.		20	
492.	Supply and install Pre-cast concrete 250 x 300 x 300 mm quadrants	No.		20	
493.	Supply and install 125x100 x 900 mm long channels	No.		10	
494.	Supply and install 125x250 mm channels	No.		10	
495.	Supply and install 125x100 mm radii channels	No.		10	
496.	Supply and install 125x250 mm radii channels	No.		10	
497.	Supply and install pre-cast concrete invert block drains 125mm x 250mm x 150mm internal diameter	LM		20	
498.	Supply and install pre-cast concrete invert block drains 190 mm x 330mm x 225mm internal diameter	LM		20	
499.	Supply and install pre-cast concrete invert block drains 760 mm x 355 mm x 300 mm internal diameter	LM		30	
500.	Supply and install pre-cast concrete invert block drains 225 mm x 450 mm x 300 mm internal diameter	LM		30	
501.	Supply and install pre-cast concrete invert block drains 175 mm x 800 mm shallow invert block drain (600 mm overall)	LM		30	
502.	Supply and install pre-cast concrete invert block drains 150 mm x 305 mm (450 mm overall)	LM		30	
503.	Supply and install pre-cast concrete side slabs 75 mm thick x 230 mm wide	LM		30	
	TOTAL CIVIL WORKS				
Fourth Option year Total					

B.3.8 GRAND TOTAL PRICE FOR BASE YEAR PLUS FOUR OPTION YEARS

Second Option Year Total:	
First Option Year Total:	

Second Option Year Total:	
Third Option Year Total:	
Fourth Option Year Total:	
Grand Total Price for all Years:	

B.4 ORDERING - The Government shall issue task orders for ordering all services under this contract. Task orders may be issued from the effective date of the contract until the end of the "Period of Performance." All task orders are subject to the terms and conditions of this contract. This contract shall take precedence in the event of conflict with any task order.

B.4.1 ISSUANCE OF TASK ORDERS – As the need for services arises, the Government will develop a price estimate. If the estimate does Not exceed US \$3,500, the Government will follow the procedures in paragraph (1) below. If the estimate exceeds US \$3,500, the Government will follow the procedures in paragraph (2) below.

(1) Orders Not exceeding US \$3,500 - The Government will select a contractor for issuance of the order. This decision will be based on the Government's best interests, which may include factors such as estimated price and past performance record.

(2) Orders exceeding US \$3,500 - Unless one of the exceptions in paragraph (4), below, applies, the Contracting Officer will determine which Contractor's prices will result in the lowest price for the individual order, the Government will make its award selection based upon the prices set forth in the contract times the estimated quantity for EA requirement and past performance information gained as a result of contractor performance under this contract.

(3) Regardless of whether the procedures in paragraph (1) or (2) above were followed, selection of contractors shall Not be protestable to GAO under Subpart 33.1 of the Federal Acquisition Regulation, except on the grounds that the order increases the scope, period, or maximum value of the contract. However, the Department of State does have an Acquisition Ombudsman who will review complaints by contractors to ensure that all contractors are afforded a fair opportunity to be considered for these task orders, pursuant to the procedures for award of task orders established herein.

(4) Exceptions to the procedures in paragraph (3) above:

(a) The agency need for the required services is of such urgency that providing such competitive opportunity would result in unacceptable delays;

(b) The order should be issued on a sole-source basis in the interest of economy and efficiency as a logical follow-on to an order already issued under the contract, provided that all awardees were given a fair opportunity to be considered for the original order.

- (c) It is necessary to place an order to satisfy a minimum guarantee.

B.4.2 SURVEY OF PROPERTY - Before performing work, the contractor shall survey the property and verify the work required against the task, to determine if any discrepancies exist. The contractor shall be responsible for any errors that might have been avoided by such a survey/review. The contractor shall immediately report any discrepancies to the COR or the Contracting Officer and shall Not begin work until such matters are resolved.

B.4.3 CONTENTS OF TASK ORDERS - The Contracting Officer shall issue task orders for make-ready services on an as-needed basis. Task orders shall include:

- (a) Date of order
- (b) Contract number
- (c) Order number
- (d) Location of property
- (e) Amount of work (square meters or linear meters)
- (f) Point of contact for questions

B.4.4 COMPLETION DATE – The contractor shall complete all services on individual housing units within five (5) to twenty (20) days keeping in mind the scope of services to be performed on receipt of a task order. The time period specified above shall Not begin until the contractor shallis afforded reasonable access to the work site.

The time period specified above may be shortened if mutually agreed to by the contractor and the Government.

The completion date is fixed and may be extended only by a written modification signed by the Contracting Officer.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 INTRODUCTION

C.1.1 GENERAL – The US Embassy Nairobi Kenya requires a make-ready services on U. S. Embassy property in Nairobi. The contractor shall furnish managerial, administrative and direct operational personnel to accomplish all work as required

C.1.2 ENGLISH SPEAKING REPRESENTATIVE - The contractor shall designate an English speaking representative who shall supervise the Contractor's workforce and be the Contractor's liaison with the Government.

C.1.2. PERSONNEL - The contractor shall be responsible for providing qualified technicians for EA trade with relevant experience to perform make-ready services for task orders issued under this contract. Helper positions do Not need to meet the experience requirement.

C.1.3 DEFINITIONS (see also FAR clause 52.202-1, Alt. 1 [APR 1994], cited in I.1)

Make-ready Services – Preparation of residential units for occupancy, including all items in this contract.

C.2 STANDARDS

C.2.1 APPLICABLE PAINTING STANDARDS AND PAINT SPECIFICATIONS

C.2.1.1 LOCAL/INDUSTRY PAINTING STANDARDS

Painting and preparatory work shall be in accordance with and the instructions given below. In cases where local standards and those listed in this contract are in conflict, the stricter of the two shall apply. All construction work must comply with local regulations:

1. The Local Government (Adoptive By-Laws)
(Building) Order 1968 - Kenya
2. The Local Government (Adoptive By-Laws)
(Grade II Building) Order 1968 – Kenya

General

1. All work is to comply with the local building regulations.
2. The contractor shall rectify any damage to all areas on completion of the works.

3. The contractor shall supply all materials and labor in order to complete the works.
4. All waste material to be taken from site and disposed of by the contractor.
5. Site is to remain tidy at all times and cleaned up on completion of works.
6. All work to be carried out in a workmanship like manner.
7. All Documentation regarding warranties, guarantees and instructional literature are to be handed to your CO Representative.
8. All care must be taken to protect the carpet and furnishings within the property and drop sheets to be used at all times where necessary.
9. Any variations are to be priced and approved in writing by CO before proceeding with the work.
10. All measurements are to be confirmed by the contractor shall on site.

NOTE: Any damage caused by the contractor shall or his contractors are to be made good at the Contractor's expense.

C.2.1.2 PAINT SPECIFICATIONS

Paint used shall be all lead-free. Latex, basic off-white, to match existing, or semi-gloss, basic off-white to match existing, or high-gloss, basic off-white to match existing. All other paints and decorative materials shall be of approved type, brand and color.

Paint Material – Use only premium quality lines from Crown paints or equals. If using other than one of the above named products, the contractor shall note the name of the product they intend to use in their estimate. No products containing lead shall be used. Do not combine paints from different manufacturers. The Salient characteristics of Crown paints or equals are:

- **Crown Vinyl Silk Emulsion,**
 - Finish: Semi-gloss, sheen finish
 - Application: Brush, roller or spray equipment
 - Washable finish
 - Physical and Chemical Properties
 - Appearance Viscous liquid of various colors
 - pH 8.5 - 10
 - Specific gravity 1.18 – 1.25
 - Viscosity 90 - 110 KU
 - % volatile 40 - 50
 - Oduor Mild

The paint must be used with solvents that are not harmful to Human (applicant). In the event of accidental ingestion or eye contact, the first aid instruction must be clearly described.

C.2.1.3 PREPARATION AND PROTECTION OF WORK AREA

Painting shall Not disturb or damage any fixed property (including light fixtures, floors, carpets, or windows). The contractor shall move, protect, and return such property to its original position.

The contractor shall remove furnishings (such as furniture, rugs) first or protect them by protective covering. The contractor shall also protect floors from soiling and paint spills. The contractor shall Not wash wooden floors under any circumstances. To protect floors (of all types) from damage, the contractor shall use a suitable protective cover and provide ladders and scaffolding with clean rubber shoes or similar protection devices.

If the contractor spills any paint, or in any way soils the floors, a specialist floor finishing company at the Contractor's expense shall perform the cleanup. After completion of the painting work, the contractor shall return all furnishings to their original position, and clean the work area free of litter and debris.

Observe manufacturer's recommendations in regard to preparation of surfaces to receive paint and application of paint itself. Procedures shall include, but Not necessarily be limited to, the following:

a. Cleaning - Clean down and remove oil, grease and loose foreign matter, including, Mold mildew, dirt and corrosion products, in a manner which causes neither undue damage to the substrate Nor damage to, or contamination of, the surroundings or the paint system to be applied;

b. Glossy Surfaces - Adequately scuff and/or solvent or chemically etch as appropriate to provide satisfactory adhesion for subsequent paint coats;

c. Filling - Fill cracks and holes with fillers, sealers or grouting cements as appropriate for the finishing system and substrate, and sand smooth, to ensure all coats finish smooth;

d. Drying - Unless otherwise specified, ensure that surfaces are cured and dry before applying additional coats of paint;

e. Generally - Remove weld spatter, slag, burrs, or any other objectionable surface irregularities. Remove any rust and apply rust primer;

f. Apply an oil-based primer to any bare timber surfaces;

g. Light sanding between coats;

h. Primers, sealers, undercoats - Ensure that primers, sealers and undercoats are suitable for the substrate and compatible with the finish coat and EA other;

i. Wet Paint Warning - Place Notices and do Not remove until paint is dry.

C.2.1.3.1 WORK AREA PROTECTION

Before painting in any section of the building, use drop sheets and painters tape wherever necessary to protect finished work or other surfaces liable to damage during painting.

C.2.1.3.2 PAINT TYPES AND SPECIFICATIONS

On clear timber finishes use only combinations of putty, stain and sealer recommended by the manufacturer of the topcoats. Use only the type and quantity of thinners recommended by the paint manufacturer. Provide finish coats, which are compatible with prime and undercoat paints used. Provide barrier coats over incompatible primers or remove and reprise as required. Do Not apply paint when surrounding temperatures and the paint manufacturer exceeds humidity conditions beyond that recommended. Do Not store or mix paint in areas or on surfaces liable to damage.

C.2.1.3.3 SURFACE PREPARATIONS

All painted surfaces are to present a clean and even appearance with No evidence of poor workmanship. Finished paint surfaces shall be free from sags, wrinkles, drips and other defects or imperfections. Do Not paint over dirt, dust, scale, grease, moisture or conditions detrimental to the formation of a durable and acceptable finish.

C.2.1.3.4 FILLING

All holes, cracks and marks should be repaired with fillers, sealant, putties or grouting cements as appropriate for the finishing system and substrate, and treat to achieve the required finish in accordance with industry standards before painting. Tint the filler to match substrate if the finish is transparent. Walls should be wiped down as necessary before painting.

C.2.1.3.5 WORKMANSHIP STANDARDS

The contractor shall confirm that he is an expert in this field of work and is fully knowledgeable and experienced in all aspects of procedures, methods, regulations, codes and municipal requirements and the contractor shall further acknowledge that the owner is relying on this expertise. Care shall be taken to ensure that the base surfaces are properly prepared and that the materials are used correctly. Where SAA or other approved Codes of Practice are applicable, the workmanship and procedures described by the relevant Codes shall be regarded as the minimum standard acceptable (See Exhibit 6).

The basic standard will be to AS 2311 Sections 2, 3, 6 & 7 and the "HAZARDOUS MATERIALS" clause of Section 1 as applicable.

Store and apply paint in accordance with the manufacturer's directions and the methods Nominated in AS 2311 "Guide for the painting of buildings". Use applicators and techniques best suited for the type of material being applied. "Ridging" at roller overlaps shall not be permitted. Apply finish as heavily as possible without running to provide a uniform finish and color free from brush marks, hairs and other imperfections. Paint surfaces behind mobile equipment and furniture the same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture. Finish exterior painted doors on tops, bottoms and side edges the same as the exterior face. Sand lightly between EA successive coat where recommended by the paint manufacturer. Apply EA coat of material at not less than the manufacturers recommended spreading rate.

C.2.1.3.6 REMOVE HARDWARE

Remove all hardware, hardware accessories and similar items in place and not to be painted or provide surface applied protection prior to surface preparation and painting operations. After completion reinstall all removed items. Exceptional care must be taken to assure tidiness of work. Suitable temporary covers, masking, drop sheets, drapes and/or barriers shall be provided and maintained effectively where necessary to protect carpeting and furniture or other finishes that are to be painted or Not to ensure that they are Not exposed to paint and put at risk. These are to be removed when the protection is No longer required. Provide "Wet Paint" signs as required to protect newly painted surfaces. Carefully remove and reinstate paint splatters from adjacent surfaces. Upon completion of the work all paint cans, other materials, containers, debris and protective coverings shall be cleaned up and removed from site and the contractor shall leave the area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

C.2.1.3.7 CONTRACTOR PROVISIONS

The contractor shall supply everything necessary for the execution and completion of the work including paint, brushes, rollers, drop sheets, sandpaper, fillers, sealants, scrapers, thinners, tints, color charts, masking tape and material, ladders and scaffolding. Site preparation and installation performance shall be in accordance with American and Kenyan building codes and standards whichever is stricter.

Painting shall Not disturb or damage any fixed property (including light fixtures, floors, carpets, or windows). The contractor shall move, protect, and return such property to its original position.

The contractor shall remove furnishings (such as furniture, rugs) first or protect them by protective covering. The contractor shall also protect floors from soiling and paint spills. The contractor shall Not wash wooden floors under any circumstances. To protect floors

(of all types) from damage, the contractor shall use a suitable protective cover and provide ladders and scaffolding with clean rubber shoes or similar protection devices.

Clean off marks, paint spots and stains throughout including on glass, restoring damaged surfaces to their original condition. If the contractor spills any paint, or in any way soils the floors and does Not make good, a specialist floor finishing company at the contractor's expense shall perform the clean-up. After completion of the painting work, the contractor shall return all furnishings to their original position, and clean the work area free of litter and debris.

C.2.1.4 TECHNICAL SPECIFICATIONS FOR PAINTING WORK

(a) INTERIOR AND EXTERIOR PAINTING

Paint surfaces as directed by the task order. Match paint to similar adjacent materials or surfaces.

(1) "Paint" includes coating systems materials, primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.

(2) **Product Data:** The contractor shall submit manufacturer's technical information, label analysis, and application instructions for EA paint material proposed for use to the COR, prior to starting work. As an attachment, list EA material and cross-reference specific coating and finish system and application. Identify EA material by the manufacturer's catalog number and general classification.

(3) **Single Source Responsibility:** Provide primers and undercoat paint produced by the same manufacturer as the finish coats.

(4) **Material Quality:** Provide the manufacturer's best quality trade sale type paint material. Paint material containers Not displaying manufacturer's product identification will Not be acceptable.

(5) Deliver materials to the job site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label with trade name and manufacturer's instructions.

(6) Store materials Not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F (7 degrees C). Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily.

(7) **Project Conditions:** Do Not apply paint when the relative humidity exceeds 85 percent, at temperatures less than 5 degrees F (3 degrees C) above the dew point, or to damp or wet surfaces. Apply paint only in temperatures in accordance with manufacturer's specifications.

(8) Examine substrates and conditions under which painting will be performed for compliance with requirements. Do Not begin application until unsatisfactory conditions have been corrected.

(9) **Preparation:** Remove hardware and hardware accessories, plates, light fixtures, and items in place that are Not to be painted, or provide protection such as taping prior to surface preparation and painting (taping includes windows, door jams, etc.).

(10) Clean and prepare surfaces to be painted following manufacturer's instructions before applying paint or surface treatments. Remove oil, dust, and direct, loose rust, mildew, peeling paint or other contamination to ensure good adhesion. In some cases, the contractor shall be requested to remove all existing coats of paint and sealers if prior paint application is showing signs of improper adhesion, such as peeling, or chipping. All surfaces must be clean and dry. Schedule cleaning and painting so dust and other contaminants will Not fall on wet, newly painted surfaces.

(11) Notify the Contracting Officer or COR of problems anticipated for any minor preparatory work required, such as but Not limited to, filling nail holes, cleaning surfaces to be painted, and priming any requisite areas. Plan preparatory work as most units in residential areas will have nail holes or areas that will need to be primed or sealed. Replace all electrical switches and plugs with new covers after painting.

(12) **Materials Preparation:** Mix and prepare paint following manufacturer's directions.

(13) **Application:** Apply paint following manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied. Do Not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.

(i) Unless otherwise specified, the contractor is to use a high quality semi-gloss latex paint (containing No lead or mercury) for all kitchens, baths, laundry areas, doorframes, and window frames. A flat or satin flat latex base paint (containing No lead or mercury) is to be used in the remainder of the unit. The color to be used must be consistent with the balance of the room, which will Normally be off-

white. Contractor shall provide samples of the color of the type of material to be painted before actual paint date is scheduled.

(ii) On exterior surfaces, apply a high quality exterior grade latex base paint that matches as closely as possible to the existing color on the exterior of the property, or a color as otherwise specified by the COR. Before painting, scrape, sand, fill and prime the surface with a latex base primer. The contractor should plan on extensive preparatory work before painting. Do Not apply exterior paint in snow, rain, fog or mist; or when the relative humidity exceeds 85 percent; or to damp or wet surfaces.

(iii) Provide finish coats that are compatible with primers used.

(iv) The number of coats and film thickness required is the same regardless of application method. Do Not apply succeeding coats until previous coat has cured. Sand between applications where required to produce a smooth, even surface.

(v) Apply additional coats when undercoats or other conditions show through final coat, until paint film is of uniform finish, color, and appearance.

(14) **Scheduling Painting:** Apply first coat to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practicable, and before subsequent surface deterioration. Allow sufficient time between successive coats to permit proper drying. Do Not re-coat until paint has dried.

(15) **Minimum Coating Thickness:** Apply materials at the manufacturer's recommended spreading rate. Provide total dry film thickness of the system as recommended by the manufacturer.

(16) **Prime Coats:** Before application of finish coats, apply a prime coat as recommended by the manufacturer to material required to be painted or finished, and has Not been prime coated.

(17) **Brush Application:** Brush out and work brush coats into surfaces in an even film. Eliminate cloudiness, spotting, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Draw neat glass lines and color breaks.

(18) Apply primers and first coats by brush unless manufacturer's instructions permit use of mechanical applicators.

(19) **Mechanical Applications:** Use mechanical methods for paint application when permitted by manufacturer's recommendations, governing ordinances, and trade union regulations.

(20) Wherever spray application is used, apply EA coat to provide the equivalent hiding of brush-applied coats. Do Not double-back with spray equipment to build up film thickness of two coats in one pass, unless recommended by the manufacturer.

(21) Upon completion of painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing, scraping or other methods, and using care Not to scratch or damage adjacent finished surfaces.

(22) Remove temporary protective wrappings after completion of painting operations.

(b) DRYWALL/PLASTER REPAIR

Patch defective drywall with a similar thickness and fire rated drywall. Joints must be taped in a manner so they are Not readily visible. The patch must be textured with a texture consistent with the rest of the surface being patched. All nail heads must be set and spackled. Joints must be taped and covered with a joint compound. Spackled nail heads and tape joints must be sanded smooth and all dust removed prior to painting. Exterior surfaces must be spackled with exterior grade compounds.

(c) TEXTURE ONLY - WALLS

Occasionally, the Government may require a wall to be textured that has Not previously been textured. The contractor shall prepare the wall by filling and sanding any small holes or cracks with a suitable "Non-shrinking" material. After preparatory work, the contractor shall furnish and apply a texture type material. If any other walls within that room are textured, the texture material shall closely match the texture of any other existing textured walls in that room. The minimum assignment for this requirement will be one room within a unit.

(d) TEXTURE ONLY - CEILING

Occasionally, the Government may require that a ceiling be textured that has Not previously been textured. The contractor shall prepare the ceiling by filling and sanding any small holes or cracks with a suitable "Non-shrinking" material. After preparatory work, the contractor shall furnish and apply an "acoustic" type texture. The minimum assignment for this requirement will be one room within a unit.

(e) PAINT EXTERIOR TRIM

Apply a high quality exterior grade latex base paint that matches as closely as possible the existing color on the exterior trim of the property, or a color as specified by the COR. The trim is to be scraped, sanded, filled, and primed with a latex base primer, prior to painting. The contractor should plan on extensive preparatory work prior to painting. The specifications for exterior paint apply, unless otherwise specified.

(f) REMOVE WALL COVERING

By task order, remove the designated wall covering (such as wallpaper, cork, mirror, and tile). After removing the wall covering the area shall be cleaned and made ready for painting. The contractor shall remove and properly dispose of the old wall covering.

(g) PLASTER

Repair any damaged interior or exterior plaster as directed by the COR. The plaster material shall be of a similar material that matches as closely as possible the existing plaster in texture and color.

(h) STUCCO

Repair any damaged stucco and remove any loose stucco before applying paint.

C.2.1.4.1 MATERIALS

02 Priming Paints

For synthetic finishing paints on internal and external woodwork, aluminum primer to BS4756:1988, Type 1 shall be used.

For synthetic finishing paints on internal and external metalwork, zinc phosphate primer or metallic zinc-rich primer to BS 4652:1995 Type 2, as specified shall be used.

For synthetic or Non-toxic paints on galvanized metal surfaces, an approved etching primer with a zinc-chromate base shall be used.

For polyurethane paint on internal and external metalwork, polyurethane red lead primer shall be used.

03 Sealers

For plaster, masonry and the like, sealers shall be an approved stabilizing solution or oil-based plaster sealer.

04 Anti-mold liquid

Anti-mold liquid shall be an approved fungicidal solution.

05 Water repellent liquid

Water repellent liquid shall be silicone or other approved water repellent.

06 Emulsion paint

Emulsion paint shall be acrylic, plastic, vinyl or latex emulsions and shall be approved material by Contract Administrator.

07 Textured paint

Textured emulsion paint shall be acrylic based emulsion paint textured with a finely dispersed aggregate approved by the Contracting Officer.

External textured paint shall be an approved heavy duty masonry paint incorporating fine aggregate filler.

08 Anti-mold acrylic emulsion paint

Anti-mold emulsion paint shall be acrylic based emulsion incorporating an approved fungus resistant chemical.

09 Multi-color paint

Multi-color paint shall be an approved brand comprising a base and hardwearing top coat incorporating a pigmented splatter coat used as recommended by the manufacturer.

10 Cement paint

Cement paint shall be waterproof cement base paint supplied in drums and shall Not be mixed with lime or other adulterants.

11 Fire retardant paint

Fire retardant paint shall be paints which, when used alone or in conjunction with other paints applied to combustible substrates in accordance with a manufacturer's tested system, achieve Class 1 spread of flame rating to BS 476:Pt. 7:1997.

12 Synthetic paint

Unless expressly specified otherwise, all paint for internal and external use shall be synthetic paint of alkyd resin base combined with drying oils and pigments. Undercoats and finishing coat shall be of properly matching type and the finishing coat shall give a hard gloss finish or as otherwise specified.

13 Polyurethane paint

Polyurethane paint shall be of the Two Pack Type and part of an approved system.

14 Black bitumastic paint

Black bitumastic paint shall be tar base paint complying with the requirements of BS 1070:1993, Type B (quick drying).

15 Black bitumen coating solution

Black bitumen coating solution shall be to BS 3416:1991, Type 1 for general purposes.

16 Metallic paint

Metallic paint shall compose of acrylic resin solution base mixed with finely divided aluminum to give a bright finish, or finely divided copper or copper alloy to give a bronze finish.

17 Marking paint for Carpark Floors

Marking paint shall be an approved purpose made synthetic Non-skid marking paint to BS EN 1871:2000, BS EN 1436:1998, with a drying time Not exceeding 30 minutes.

18 Non-toxic paint

Non-toxic paint for use on water tanks, water collecting roofs etc. shall be proprietary brands as approved by the UK National Water Council and one of the following types:

(i) Petroleum or asphaltic bitumen based coatings, or

(ii) Epoxy based coatings.

19 Wood preservative

Wood preservative shall offer complete protection against termites, wood boring insects, fungi, wood rot and decay. It shall be an approved proprietary brand exterior grade, where completely concealed or Not decorated, and colorless, colored or suitable for overpainting where likely to be exposed or be in contact with a painted finish.

20 Stain

Stain for woodwork shall be an approved water or spirit stain suitable for use under varnish or wax polish. Self-finished stains shall be an approved proprietary make.

21 Varnish

Varnish shall be one of the following types:

- (i) Copal Varnish shall be No. 1 Extra Pale quality for internal use only.
- (ii) Synthetic Varnish shall be the Long Linseed Oil Alkyd type for internal or external use.
- (iii) Polyurethane Varnish for internal or external use shall be either:
 - (a) Moisture Cure Oil Modified One Pack Type, or
 - (b) ISO Cure Two Pack Type.

22 Wax polish

Wax polish for floors, furniture and joinery shall be an approved proprietary brand.

23 Cellulose lacquer

Cellulose lacquer shall be an approved brand.

C.2.1.4.2 WORKMANSHIP

01 GENERAL

Surfaces, fittings, furniture and the like shall be protected by suitable and approved means. "Wet Paint" signs in English shall be exhibited and protective barrier shall be provided where necessary. All surfaces shall be kept clean and free from dust during coating and drying. All splashes shall be removed and cleaned off while work is in

progress. Damage shall be made good, and work, and all areas in which work is executed, shall be left clean and perfect on completion. Painting generally shall be in accordance with BS 6150:2006 and BS 8000: Pt. 12:1969.

(i) Works shall Not be carried out in wet humid or foggy weather, direct sunlight, or on surfaces which are Not thoroughly dry, or if there is excessive dust in the air.

(ii) All holes, cracks and other defects in surfaces shall be made good prior to painting.

(iii) EA coat shall be brushed well into the surface so that every part, including joints, junctions, angles, etc., is adequately covered. Excessive or uneven thickness of paint film, particularly at edges, angles and junction shall be avoided.

(iv) Before applying coatings, moisture content of the substrate shall be checked to avoid adversely affecting the completed work. Coatings shall only be applied to clean, dry surfaces after any previous coatings have hardened, and have been rubbed down smooth with fine glass paper.

(v) Successive coats of paint shall be of slightly differing tints, and the intercoating time shall Not exceed the limits recommended by the paint manufacturers.

(vi) Coatings shall be applied with approved bristle brushes of suitable size. Flat wall brushes shall Not be less than 150 mm wide.

(vii) Rollers, cloths or gloves shall Not be used unless ordered or approved by the Contracting Officer/COR.

(viii) Mechanical spraying machines shall Not be used unless ordered or approved by the Contracting Officer/COR. When mechanical spray painting is ordered or permitted, the priming coat (or first undercoat, if No priming coat) shall be applied by brush.

(ix) Where required, surfaces which become inaccessible shall be primed and painted prior to fixing.

(x) All articles of ironmongery, hardware, etc. shall be removed before painting and replaced with matching screws (and plugs, if required,) of suitable size, after completion. Everything shall be left clean and completely free from all paint stains, splashes, etc.

(xi) Weather stripping on metal windows or doors shall Not be painted.

(xii) Coated surfaces shall be touched up on completion, when ordered.

(xiii) Paint sample panels shall be prepared if necessary for Contracting Officer's or COR approval before carrying out work.

C.2.1.4.3 TREATMENT OF EXISTING SURFACE

Existing decoration which is in poor condition or shall be replaced by a different type of decoration shall be completely stripped off. After stripping the existing decoration, surfaces shall be prepared as required for the type of decoration to be applied.

All concrete surfaces to receive paint shall be dry at the time of application. Sufficient drying time shall be allowed either after construction or after wet preparation methods, to satisfy one of the following requirements:

(i) Moisture meter readings shall be consistently less than 5% (concrete scale).

(ii) There shall be No retained moisture behind polythene taped to the concrete for 24 hours.

(iii) Internal humidity measurements within concrete shall be < 75% (e.g. Seared probe). Prior to applying the paint to new surfaces, sample area Not less than 5 m² shall be prepared on the structure to be painted. Actual consumption in liters/m² of the various coats of the paint system in the test area shall be recorded, in order that due allowance may be made for rough, irregular or exceptionally absorbent concrete, or render. When the paint system has cured for 14 days, a test on surface adhesion shall be made. In the absence of satisfactory bond strength results, the concrete surface shall be cleaned using high pressure water jetting followed by re-application and re-testing of the coating. Coatings shall only be applied during favorable weather periods, when rainfall is Not expected for the following 12 hours. The dew point shall be at least 5°C lower than the temperature of the concrete surface before painting can commence. Painting, using water based paints, shall Not commence whilst the relative humidity is above 85% or where it may be expected to exceed 90% during the 12 hour curing period.

Primers, undercoats and finish coats shall be applied in accordance with manufacturers' instructions using brush, roller, spray or other technique to achieve the desired surface finish.

Brush application of primers is the preferred method for working paint into concrete pores. Where brush or roller techniques are used, the brushes or roller beads shall be used for the day only and then discarded. The equipment shall Not be cleaned for reuse, owing to the risk of solvent/water dilution.

Where spray equipment is used, all cleaning fluid shall be purged from the lines using undiluted paint. All such contaminated paint used for purging lines shall be discarded and Not be used in the works.

Where two-component materials are used, EA component shall be thoroughly stirred before mechanically mixing the whole units together; part batches shall Not be used. The

exception is where airless spray equipment is used, incorporating a Nozzle mixing device.

For multiple coat applications, manufacturers stated minimum and maximum overcoating times shall Not be brEAEd for the prevailing weather conditions.

For multiple coat applications, successive coats shall have slightly different color shades to assist in achieving uniform coverage.

C.2.1.4.4 PREPARATION OF EXISTING DECORATED SURFACES

All dust, dirt, stains, efflorescence, grease and loose material shall be removed and, unless otherwise specified, existing decorated surfaces shall be prepared for decoration as follows:

(i) Lime washed or whitened surfaces shall be scraped, broomed down, stopped, applied and brought forward bare spots with new material.

(ii) Emulsion or textured emulsion painted surfaces shall be scraped, washed down, stopped, and brought forward bare spots with new material.

(iii) Cement painted and external textured painted surfaces shall be scraped, washed down, stopped, brought forward bare spots with new material and surface shall be dampened immediately prior to painting.

(iv) Synthetic painted surfaces other than metal or wood shall be scraped, washed down, stopped, rubbed down and applied with primer to and brought forward bare spots with undercoat.

(v) Black bituminous coated surfaces shall be spot primed bare areas with black bituminous coating.

C.2.1.4.5 TREATMENT OF METALWORK

01 PAINTED NON-GALVANISED IRON AND STEEL

Painted Non-galvanized iron and steel surfaces shall be washed down, scraped, chipped off and wire brushed to remove all scale and rust, then rubbed down, applied with rust inhibitor and primer to bare areas or such additional areas as directed and brought forward with undercoat.

02 PAINTED ZINC-SPRAYED OR GALVANISED IRON AND STEEL

Painted zinc-sprayed or galvanized iron and steel surfaces shall be washed down, scraped and removed from all scale and rust, then rubbed down and applied with calcium primer and brought forward bare spots with undercoat.

C.2.1.4.6 TREATMENT OF WOODWORK

01 SYNTHETIC PAINTED SURFACES

Synthetic painted surfaces shall be washed down, scraped, rubbed down, knotted, primed and stopped and brought forward bare spots with undercoat.

02 POLYURETHANE OR COLD CURE EPOXY PAINTED SURFACES

Polyurethane or cold cure epoxy painted surfaces shall be washed down, scraped, rubbed down, stopped and applied with epoxy filler and brought forward bare spots with undercoat.

03 VARNISHED SURFACES

Varnished surfaces shall be washed down, scraped and rubbed down and brought forward bare spots with varnish.

04 WAXED OR LACQUERED SURFACES OTHER THAN WAXED FLOORS

Waxed or lacquered surfaces other than waxed floors shall be rubbed down, filled, and again rubbed down to produce a smooth surface ready for rewaxing or relacquering.

05 WAXED FLOORS

Waxed floors surfaces shall be cleaned with wire wool or sanded down as specified.

C.2.1.4.7 PREPARATION OF PLASTERED AND RENDERED SURFACES

All plastered and rendered surfaces shall be thoroughly washed as necessary, broomed down and stopped.

“Washing” shall mean removal by washing with clean water of all materials Not absorbed into the underlying surfaces.

“Brooming down” shall mean thorough dry brushing of any surface with a stiff broom or brush as to remove all cobwebs, dust or loose particles of previous finishes.

C.2.1.4.8 PRIMING

Primer shall be worked into surface, joints, angles and end grain.

Priming coats shall be of adequate thickness and suit the surface porosity.

Any primed surfaces that have deteriorated on site or in transit shall be touched up or reprimed.

Priming coats on new work shall be applied before the articles are fixed in position.

Primer to metal surfaces shall be applied on the same day as they have been cleaned.

'Wash' or 'etch' priming coats shall be allowed to harden before applying subsequent priming

coats.

C.2.1.4.9 UNDERCOATING

Undercoats shall be applied in an even film over all surfaces. Uneven thicknesses at edges and angles shall be avoided.

If the undercoating of a particular painting system is only available in white, an additional finishing coat shall be applied in lieu of a second undercoat.

C.2.1.4.10 FINISHING COAT

Finishing coats shall be applied in an even film over all surfaces. Brush marks, sags, runs and other defects shall be avoided.

Where two hard gloss finishing coats are specified, the second coat shall be applied within 48 hours of the first coat.

Key shall be provided between coats by rubbing down with medium/fine glass paper.

Anti-mold liquid

Surfaces subject to mold or similar growth, shall be washed down with one coat of anti-mold liquid before preparation of surface for decoration. Surfaces shall be entirely clean of old mold growth and spores.

Water repellent liquid

Surfaces shall be brushed, cleaned down and applied with one coat of water repellent liquid in accordance with the manufacturer's recommendations.

Cement paint

Before applying cement paint to absorbent surfaces, the surfaces shall be thoroughly damped to provide even suction. Cement paints shall be used within one hour of mixing. A minimum drying time of 12 hours shall be allowed between coats.

Wood preservative

Wood preservative shall be applied over entire surface of timber. The timber shall have the correct moisture content before application of the preservative. Treatment shall comply with the manufacturer's recommendations, and shall be carried out after cutting to size. Treated timber shall be stacked to dry out before priming and fixing.

Black bitumen coating Solution

Coating which is to receive plaster, rendering or screeds shall be blinded with clean, sharp sand while still tacky. The final covering shall be laid as soon as possible after the black bitumen coating.

Wax polish

On joinery and furniture, wax polish shall be applied with a soft cloth and a minimum drying time of 4 hours shall be allowed between coats. Surface shall be brushed with a soft brush to obtain an eggshell finish. On floors, wax polish shall be applied with weighted felt pad or electric polisher.

Cellulose lacquer

A hard, high gloss finish free from marks and imperfections shall be produced by applying undercoats, rubbing down with "flour-grade" glass paper and applying final coat and polishing.

C.2.1.11 PAINTING TO PIPE WORKS

The contractor shall submit proposal of painting system including type of paint coat/primer, painting procedures etc. to the Contracting Officer/COR for approval prior to commencement of work. All paints shall be prepared and applied in accordance with the manufacturer's recommendations.

Painting to pipe works shall strictly follow the specified or approved painting system, which is compatible with the existing coating. The color of the finishing coat should match the surrounding surface with distinguishing color code bands and flow arrows in the specified color scheme as directed.

All galvanized metal surfaces shall be properly etch-primed to ensure correct adhesion of the paint to the surface. Material shall be as recommended by the paint manufacturers. Painting to galvanized surfaces shall be one coat of primer, one undercoat and two finishing coats of synthetic paint or other paint system subject to the Contracting Officer/COR's approval.

Prior to painting, all metallic surfaces except galvanized surfaces shall be thoroughly scraped and wire brushed as necessary to remove scale, rust and swarf. All metallic and uPVC surfaces shall then be solvent cleaned to remove all oil, grease and dirt.

C.2.3 PLUMBING SERVICES

The contractor shall perform the following plumbing inspection and repairs and use the checklist in Section J, Exhibit 2.

The contractor shall check and test or repair all plumbing fixtures to insure they are operating as designed. The contractor shall clean all water faucets and snake out the interior drain lines throughout the residence to avoid the possibility of clogging. The contractor shall flush out the water from the ice maker of refrigerator more than 5 gallons of water for control of odor.

C.2.3.1 Plumbing works Regulations

All plumbing works shall comply with the requirements of

1. Municipal Authority and Waterworks Regulations.
2. The Local Government (Adoptive By-Laws) ,(Building) Order 1968 and The Local Government (Adoptive By-Laws) (Grade II Building) Order 1968

Pipe work under this section shall include:

- (i) External water mains and fire services mains within the site boundary.
- (ii) Rising water and fire services mains.
- (iii) Internal water distribution pipe work.
- (iv) Washouts, overflows and all connections to tanks.

C.2.3.2 Materials

For cold and hot potable water supply systems, Galvanized pipes or any alternative materials which are acceptable to Water Authority and incorporated into Schedule 2 of Waterworks Regulations for use in fresh water inside service shall be used. PPR and other weaker materials shall not be used in water heater connection due to risks of failure. Where repair work or installation is to be undertaken on hot water plumbing circuits, the system must be tested for over pressure and over temperature using Temperature /pressure relief valve and two stage thermostat (BMST 7 or equivalent).

The use of jointing materials based on red lead shall Not be permitted. Solder used for jointing copper or copper alloy potable water pipes shall be lead free and comply with BS EN 1254 1:1998.

C.2.3.3 Plumbing's Testing and commissioning:

Upon completion of major repair or installations in the plumbing systems, pressure test must be conducted to confirm that the materials used have the capability to work without failure. Pressure and temperature tests must be conducted to ensure that the protection devices function as required. Materials used must be food grade/potable water grade as confirmed through MSDS (Material safety data sheet). EA valve shall be hydraulic tested at 1.5 times the Nominal pressure of the valve for a period of Not less than 1 minute at the factory. Type test certificate/report from the independent and reputable laboratories, for the verification of the hydraulic pressure requirements and material used, shall be produced upon request.

C.2.3.4 Fittings/installations:

a) Operations:

Manually operated valves shall be closed by turning the hand wheel in a clockwise direction when facing the hand wheel. All valves shall be provided with an indicator to show the open and Shut position. Unless otherwise specified, Non-return valves shall be of the hinged-swing or the recoil type, suitable for both vertical and horizontal installations.

b) Sizing:

The valve shall be sized large enough to satisfy the maximum flow at the rated pressure. The performance curve showing the amount of pressure reduction against flow rate shall be to the satisfaction of the Contracting Officer/COR. Ball valves shall be of the slow closing type, unless otherwise specified.

c) Air lock/leaks:

All pipes shall be installed to falls of 1 in 100 (minimum) to prevent air locks. Pipe runs above electrical switchgear and at locations which may cause obstructions inside pump rooms shall be avoided. Pipes shall Not be fixed to ceilings of pump rooms.

d) Flush valves:

No pipe sealant or plumbing grease shall be allowed on any flushing valve components or couplings unless otherwise specified in the manufacturer's literature.

e) Overflow pipes/clean out:

Overflow pipes shall be one pipe size larger than the inlet pipe and in No case less than 25 mm diameter and shall be extended to terminate in conspicuous positions. The top of the overflow pipe shall be Not less than 25 mm below the invert of the inlet pipe. Tanks and cisterns shall be cleaned out. Pipe work, including overflows, shall be flushed out with fresh water on completion.

f) Traps:

Traps shall have 75 mm seal, unless otherwise specified

C.2.3.5 WORKMANSHIP:

All necessary jointing compounds, mortar, lead plugs and other accessory materials shall be provided. Brackets shall be cut and pinned, or plugged and screwed, and all necessary connections to water supply services, overflows, wastes and ventilating pipes shall be made. All sanitary fitments shall be adequately supported when being fixed. Where build-in types of brackets are used, the tails of such supports shall be built into the wall at least 75 mm and where wall fixing types are used, the wall finish shall have been arranged to make provision for them.

All fittings shall be pointed as necessary with the following:

(i) White or colored cement.

(ii) White or colored silicone sealant. All fittings shall be de-greased and dried before the application of sealant. Discharged pipes and water supply pipes shall be installed before fixing the fitments. Protective coverings shall be retained during and after fixing when practicable and cleaned off when required. Any fitments which are chipped or scratched shall be replaced either before or after fixing.

C.2.4 ELECTRICAL SERVICES

The contractor shall perform the following electrical services and use the checklist in Section J, Exhibit 2.

C.2.4.1 ELECTRICAL INSTALLATION SYSTEM

C.2.4.1.1 GENERAL REQUIREMENTS

The contractor shall identify all necessary diversions of the existing building services and Notify the Contracting Officer/COR r in writing with proposals, method statements and drawings.

All services diversion associated with the works shall be carried out by the contractor unless

otherwise stated. The contractor shall carry out a site survey and performance assessment of existing electric devices in Meter Room and LV Switch Room before work starts.

Moreover, the contractor shall Notify the Contracting Officer/COR in writing with report.

All cabling that does Not comply with the latest ordinance and regulations shall be replaced. Newly installed trunking cable tray and conduit with adaptable box shall be painted and labelled. All temporary power fixtures and equipment and cables, costs used during the construction stage shall be borne by the contractor.

Materials for electrical conduit systems and for cable duct systems shall be stored in accordance with the manufacturers' recommendations in a dry and weatherproof store. Holes and recesses shall be left in structures for electrical installations. If instructed by the Contracting Officer/ COR, holes and recesses shall be cut in structures for electrical installations. Holes and recesses in internal floors, stairways and platforms shall be protected with temporary covers or by other methods agreed by the Contracting Officer/COR until the electrical installation starts. Holes and recesses in roofs, external walls and external floors shall be sealed with watertight temporary covers until the electrical installation starts. Holes in structures shall be filled and made good after electrical installations are complete. Holes left in structural elements designated as fire barriers shall be sealed to at least the same degree of fire resistance as the structural element.

The tolerance in floor levels for switchgear rooms shall be as follows:

- (i) ± 2 mm in 1000 mm for high voltage switchgear rooms;
- (ii) ± 4 mm in 1000 mm for medium voltage switchgear rooms;

The tolerance lamp standards shall be within 0.1 degrees of the vertical.

C.2.4.2 MATERIALS AND EQUIPMENT SPECIFICATION

C.2.4.2.1 ELECTRICAL CONDUITS AND FITTINGS

Electrical conduits and fittings shall comply with BS 4568:1970 Parts 1 and BS EN 50086-

1:1994 and shall have Class 4 heavy protection inside and outside. Conduits shall be heavy

gauge with screw-end construction in steel and shall have an external diameter of at least 20

mm. Conduits shall be longitudinally welded. Metal boxes for enclosing electrical accessories shall comply with BS 4662:2006+A1:2009 and shall have heavy protection inside and outside. The boxes shall be of preferred sizes and shall be 35 mm or 47 mm deep as appropriate. Circular ceiling boxes of deep pattern shall comply with BS 4568:Part 2 and shall have Class 4 heavy protection inside and outside. The boxes shall be at least 60 mm deep internally. Circular boxes, dome covers and hook covers shall be cast iron. Bushes and plugs shall be brass.

C.2.4.2.2 CABLE DUCTS AND FITTINGS

PVC cable ducts for installation above ground or for casting into concrete shall be Class 0

PVC pipes complying with BS 3506. Cable ducts for installation below ground shall be Class

B PVC pipes complying with BS 3506:1969. Joints and fittings for use with uPVC cable ducts shall comply with BS 4346.

Part 1 and BS4346:

Part 2. Solvent cement for uPVC pipes and fittings shall comply with BS 4346:

Part 3. Steel cable ducts shall be steel tubes complying with BS EN 10255:2004, medium series,

screwed and socketed tubes and shall have screwed sockets suitable for screwing to BS EN

10226-1:2004, Table 2 pipe threads. The tubes, sockets, clamps and saddles for ducts shall be

hot dip galvanized in accordance with BS EN ISO 1461:2009.

C.2.4.2.3 PAINT FOR CONDUIT AND DUCT SYSTEMS

Bituminous paint for steel conduits and steel cable ducts shall comply with BS 3416, type

1:1991. Anti-rust paint for concealed electrical conduit systems shall be of a proprietary type approved by the Contracting Officer/COR. Zinc chromate primer for cable duct systems shall comply with BS 4652:1995. Galvanizing paint for cable duct systems shall be of a proprietary type approved by the Contracting Officer/COR.

C.2.4.2.4 FIRE BARRIERS

Internal fire barriers shall be a type offering adequate fire resistance for the application. The material shall be approved by the Contracting Officer/COR in compliance with Buildings Department's requirements and shall be resistant to fire, smoke, gas and water. Internal fire barriers shall be constructed in service channels, service shafts and service ducts for electrical installations at the following locations:

- (i) At points of intersection with structural elements designated as fire barriers,
- (ii) At 5 m centers in vertical and inclined shafts, and at intersections with floor slabs, and
- (iii) At termination points and open ends.

C.2.4.2.5 CONCEALED ELECTRICAL CONDUIT SYSTEMS

01 Construction

Concealed electrical conduit system is an electrical conduit system, including all bends, couplers, bushes, saddles, boxes, covers, plugs, draw wires and other conduit fittings, which

is cast into concrete or fixed in chases in brickwork with a minimum cover of 20 mm or which is laid directly in the ground. Concealed electrical conduit systems shall be electrically continuous and shall be effectively earthed. Principal conduit runs shall be either vertical or horizontal. Tee pieces and elbows, including those with provision for inspection, shall Not be used unless approved by the Contracting Officer/COR. Joints shall be made using coupler units into which the ends of the conduits shall be inserted and tightened. Running couplings shall Not be used unless permitted by the Contracting

Officer. If permitted, the couplings shall be made by screwing EA of the conduits halfway into the coupler with a hexagonal lock nut against EA end of the coupler.

Adaptable boxes shall be provided at:

- (i) Every second bend,
- (ii) After a bend and a straight run of 10 m or less, and
- (iii) Every 15 m in straight runs.

Adaptable boxes for conduits installed in floor screeds shall have the lids set flush with the adjacent floor. The boxes shall be covered with the same material as the remainder of the floor and shall remain accessible at all times. The clearance between conduits entering adaptable boxes and between adjacent or parallel conduits shall be at least the Nominal maximum coarse aggregate size of the concrete plus 5 mm.

02 Installation

Concealed electrical conduit systems shall be arranged and installed in accordance with best trade practice and in such a manner that all cables can be drawn with ease and without

damage. Bends in concealed electrical conduit systems shall be formed by using proprietary bending equipment of a type agreed by the Contracting Officer/COR. Connections and other work shall be carried out using purpose made equipment. Conduits shall Not be bent by more than 90 degrees and the internal radius at bends shall be at least 2.5 times the external diameter of the conduit. Conduits shall Not be flattened at bends. Burrs and sharp edges shall be removed from the ends of conduits before installation. Concealed electrical conduit systems that are to be cast into concrete shall be fastened to the reinforcement with tying wire of the same type used for the reinforcement. The conduit systems shall Not be positioned between the reinforcement and the outside face of the concrete unless permitted by the Contracting Officer/COR. Conduit boxes shall be of a compatible size and shall have a single extension ring of the required depth if the plaster finish exceeds 13 mm thick. Multiple extension rings shall Not be used.

03 Terminations

Screw fitting couplers shall be provided at EA end of conduits which terminate in distribution boards, busbar chambers, motor starters, cable ducts, boxes or similar termination points. The item at which the conduit terminates shall be drilled with an unthreaded clearance hole to receive a brass male bush. The bush shall be screwed into the coupler from the inside of the item in such a manner that the surface of the item is gripped between the coupler and the bush. The threads shall be at least half the length of the coupler.

04 Protection

Concealed electrical conduit systems shall have special arrangements designed by the

contractor to permit movement of conduits to take place on EA side of movement joints in structures. A separate circuit protective conductor shall be installed to maintain effective electrical continuity across the joint. The protective conductor shall have a cross-sectional area rated to suit the largest live conductor to be drawn into the conduit. Steel conduit systems laid in contact with or adjacent to other metal work shall have efficient and permanent metallic connection made between the conduit and the metal work. Underground steel conduits and conduits in contact with soil shall be painted with two coats of bituminous paint before installation. Exposed threads and damage to protective coatings of conduit systems shall be painted with two coats of anti-rust paint. Conduits shall be laid in such a manner that accumulation of condensed moisture in the conduit system is prevented. Measures shall be taken to prevent water from entering the system. Water, moisture and deleterious material shall be prevented from entering permanent and temporary terminations in concealed electrical conduit systems, including conduit boxes, by using conduit-stopping plugs of a type approved by the Contracting Officer/COR. Paper or rags shall Not be used.

05 Cleaning

After installation, concealed electrical conduit systems shall be swabbed out with draw-in tapes and absorbent cloth of a type agreed by the Contracting Officer/COR. All obstructions shall be removed and draw wires shall be installed. After cleaning, exposed conduit ends shall be sealed as stated.

06 Conduit System

All conduit systems shall be installed fully in accordance with the requirements of the I.E.E. Wiring Regulations of the latest edition. All conduits shall be swabbed through to clean out all dirt, burrs and moisture. All sets and bends in conduit runs are to be formed on site with bending machines. Distortion of conduits due to bending is Not acceptable. Runs between draw-in boxes are Not to have more than two right angle bends or their equivalent and the length of such runs shall be limited to 12 m to permit easy drawing-in of cables. Chase for conduit in walls shall be perpendicular and horizontal. All conduit runs shall be secured in dry wall or recessed in the floor screeding.

C.2.4.2.6 FLEXIBLE CONDUIT

Flexible conduit shall be used for final connections to equipment subject to vibration or liable to withdrawal for maintenance or servicing. Flexible steel conduit and solid type adaptors shall comply with BS EN 50086-1:1994. The conduit shall be watertight with the provision of separate earth wire enclosed for earth continuity. All flexible steel conduits shall be PVC sheathed.

C.2.4.2.7 CABLE DUCT SYSTEMS

01 Installation

Changes in direction in cable duct systems shall be constructed in such a manner that the

cables in the duct will have radii of curvature of at least 800 mm. Ducts entering draw-in pits shall be on the same horizontal plane as the draw-in pit. PVC cable ducts shall be jointed in accordance with the manufacturer's recommendations. Steel cable ducts shall be jointed using screwed hot dip galvanized sockets and spun yarn or by an equivalent method approved by the Contracting Officer/COR such that the jointed pipes abut. The threads shall be painted with two coats of bituminous paint. Internal rags and burrs shall be removed to provide a smooth bore through joints in the cable duct system. General Specification C22 – Electrical Installation System 250 Surface mounted cable ducts shall be secured by hot dip galvanized steel clamps or saddles at spacings Not exceeding 3 m.

02 Protection

After jointing, exposed bare metal in cable duct systems shall be cleaned and painted with two coats of zinc chromate primer and two coats of galvanizing paint. Surface-mounted hot dip galvanized steel cable ducts shall be cleaned and painted after fittings and jointing have been completed.

03 Cleaning

After jointing, cable duct systems shall be cleaned internally by scrubbing with a cylindrical brush of a type agreed by the Contracting Officer/COR. The ends of ducts, including ends of ducts in draw-in pits and spare ducts, shall be fitted with tapered hardwood plugs to prevent water, moisture and deleterious material from entering the system and a 6 mm diameter nylon draw line shall be installed. The plugs shall be centrally drilled for the draw line and the draw line shall be secured by a knot tied on the outer face of the plug to leave at least 1500 mm of surplus line at EA plug.

C.2.4.3 CEILING/EXPOSED CABLE TRUNKINGS / WIRE MESH BASKET

Cable trunking shall be manufactured in minimum lengths of 2 m from 1 mm thick zinc spayed sheet steel finished with rust resisting primer and sprayed overall grey enamel. Covers are to be held in place by screws. Trunking shall be terminated with end flanges bolted directly to switch or distribution boards. Connection pieces shall be used and bolted with cadmium plated mushroom head steel screws, nuts and shake-proof washers. EA joint shall have a copper link to ensure electricity continuity. Conduit entries to trunking shall be made with couplings and brass male bushes. Knockouts will Not be required and trunking may be drilled on site.

Trunking shall Not contain more cable than allowed as the space factors described in the I.E.E.

Wiring Regulations. Wire mesh basket and cable ladders shall comply with all electrical wiring regulations. The contractor shall only use these items inside the IT equipment room.

C.2.4.3.1 P.V.C. INSULATED CABLES

PVC insulated cables shall consist of copper conductors, PVC insulated to C.M.A. Standards and to B.S. 6004:2000. Cables for three phase and single phase circuit shall be 600/1000 volt grade.

The current carrying capacity shall be in accordance with the Regulations and shall be limited to the specified voltage drop. Minimum size of copper cables shall be as follows:-

- (i) Lighting - 1.5 mm
- (ii) Power - 2.5 mm

All wiring shall be carried out on the loop-in system and the wires shall be drawn into the conduit after the whole of this installation has been completed. No joints or connectors will be allowed in any such cable, except that connectors may be used in accessible position within light fittings. Color for identification of conductors in fixed electrical installations shall be as shown below:-

Function	Color	Code	Letter	Code
Phase of single phase circuit	Red	L		
Phase 1 of 3-phase circuit	Red	L1		
Phase 2 of 3-phase circuit	Yellow	L2		
Phase 3 of 3-phase circuit	Blue	L3		
Neutral	Black	N		
Protective conductor	Green and Yellow			

C.2.4.3.2 SOCKETS AND SPUR UNITS

Sockets shall be complying with B.S. 546:1950 or B.S. 1363 and shall be shuttered type except 2A 3 pin and 5A 3 pin fixed on ceiling or at high level. Sockets shall be fitted with switches, unless otherwise specified. The switch shall be single pole contained within the same enclosure as the socket. All sockets shall be connected with earthing cable between the socket and the junction box. The earthing cable shall be – green/yellow color. Fused Spur Unit shall be of double pole, switched type with neon indicator complying with B.S. 5733:1995. The rating shall be of 13A. EA unit shall incorporate a fuse link to B.S. 1362:1973 rate to suit the appliance to be fed. An earth terminal shall also be provided for the connection of the circuit protective conductor to the appliance. All power socket outlets shall be installed on the wall as indicated in the drawings. Height of the socket outlet shall be 300 mm off the floor level or approved by Contracting Officer/COR. Socket outlets shall be mounted onto junction boxes embedded in the wall. Final circuit labels shall be provided. Utility power outlets shall be taken from the power outlet MCB.

C.2.4.3.3 LIGHTING AND FLUORESCENT TUBE & FITTINGS

All fluorescent tubes shall be of energy saving type unless specified. Lighting color for fluorescent tubes shall be approved by Contracting Officer/COR. Fluorescent tube samples with operating temperature ranges between 3900K to 4500K shall be provided. A selection shall be made on site by the Contract Administrator. EMSD approved Electronic Ballast with power factor correction capacitor shall be installed in all light panels where fluorescent light fittings are used. Catalogue and certificate (letter) of compliance from EMSD shall be submitted to the Contract Administrator for approval. Emergency fluorescent tube shall be provided and replaced the existing lighting in the staircases landing and half-landings of the entire building. Emergency lighting for all premises shall comply with BS 5266:Part 1. Emergency lighting shall be backed up by emergency power supply or provided with secondary battery. In the event of power failure, the emergency lighting shall be activated within 5 seconds. For emergency luminaries indicated, integral battery pack and control unit shall be installed within the selected light fittings, for a duration period of 2 hours. General Specification C22 – Electrical Installation System 252 Batteries used shall be of the sealed Nickel Cadmium type. Batteries shall be maintained in good condition on site with all necessary precautions being taken to prevent deterioration. They shall be handed over, at the completion of the work, fully charged. Simulation of mains failure shall be by means of a tamper-proof switch operated by a removable key.

The wiring installation shall comply with the relevant clauses of this Specification. The type and size of cables shall be of a suitable size and type. Wiring shall Not be drawn into the same conduit, trunking compartment or ducting compartment as cable of other Category 3 circuits. The cores of emergency lighting circuits shall Not be contained within the same multicore cable, flexible cable or flexible cord as cores of any other circuits.

C.2.4.3.4 STEP DOWN TRANSFORMER FOR LOW VOLT LIGHTING DOOR BELL

All transformers shall be double wined specific for the operation assigned and No auto transformer shall be accepted. Individual transformer shall be used for EA lighting fitting or door bell.

C.2.4.3.5 FUSED SWITCHGEAR AND ISOLATORS

All fused switchgear and isolators whether mounted in a cubicle type switchboard or separately mounted shall be heavy duty type conforming to the requirements of BS 5419:1977, utilization category AC23. All contacts shall be fully shrouded and shall have a breaking capacity on manual operation as required by the British Standards. Operation of fuse switches shall be independent of the operator's control, with a quick make/quick break action. The fuse links for fuse-switches and switch-fuses shall be high rupturing capacity, cartridge type conforming to B.S. 88 and ASTA certified for class Q1 fusing factor. Fuse-switches and isolators mounted in cubicle type switchboards shall be enclosed in separate sheet metal compartments, and mechanical interlocks shall be provided between the cubicle doors and the switch operation mechanisms, so arranged

that the cubicle door may Not be opened with the switch in the 'ON' position. Similarly it shall Not be possible to close the switch with the cubicle door open; except that provision shall be made within the cubicle for authorized persons to defeat the mechanical interlock for test purposes, and close the switch with the door in the open position. The 'ON' and 'OFF' positions of all switches and isolators shall be clearly indicated by a mechanical flag indicator or similar device. In T.P. & N. fuse-switch units, bolted neutral links shall be fitted. For single pole and neutral fuse-switches and isolation switches, the neutral conductor shall be taken through a bolted link. Contactors shall be double air-break, double-pole, and triple-pole, conforming to B.S. 5424. The rating shall be as Noted on the drawing but in any case, shall Not be less than 10A or the rating of the circuit, whichever is the greater. All ratings shall be 'continuous', and all contacts shall be silver plated. Contactor coils shall operate from a single phase electricity supply.

C.2.4.3.5 DISTRIBUTION BOARD

All distribution board shall contain a main switch. All wiring, bus-bar etc. within the distribution board shall be adequately shrouded and an insulating front shield of 3 mm thickness shall be provided to completely screen the distribution unit interior. Only the MCB, RCCB and MCCB operation dolly and insulated surround shall project through the shield. Neutral bars shall be of adequate cross section, mounted on insulator, and drilled to receive circuit wiring. The distribution board shall be completed with circuit record card, suitably roofed and finishes, giving the total number of points served by EA MCB, total load per way and the area served.

The sheet metal for the MCB Board shall be Not less than 1.0 mm and 1.5 mm for MCCB

Board. Engraved labels shall be fixed to all MCB, RCCB and MCCB etc., showing the circuit numbers and purpose. Engraved labels to identify the purpose of distribution boards shall also be fixed to the panel door/cover. IP rating for the Distribution Boards shall be submitted to the Contracting Officer/COR prior to installation for approval.

C.2.4.3.6 MINIATURE CIRCUIT BREAKER AND RESIDUAL CURRENT DEVICE (RCD)

Single pole Miniature Circuit Breakers shall be used for sub-circuit control and protection on all lighting circuits and shall be manufactured and tested to the requirements of BS EN 60898-

1:2003+A1:2004. Interrupting capacity shall be 5,000 Amp. at 200/220 volt. Except for the terminals and toggle, the entire current carrying and operating mechanism of circuit-breakers shall be contained within a molded plastic case. The operating mechanism shall be arranged such that it is trip-free and impossible for the circuit breaker contacts to be held closed by means of the toggle under overload conditions. The circuit breakers shall have an inverse current/time characteristic in which the time delay on tripping shall be inversely proportional to the magnitude of the load current, up to approximately seven times full load current rating. On heavy overloads or short circuits, breakers shall trip

instantaneously. The body and base of the MCB units shall be molded Bakelite or similar material and the units to be sealed after assembly. The load handling contacts shall be silver / tungsten and the contacts and operating mechanism so designed as to give a wiping action, both make and break. The RCD shall be in compliance with B.S. 4293:983 or IEC 27. A quick break switching mechanism irrespective of toggle switching speed with trip free mechanism shall be provided and the switching mechanism shall be totally enclosed within molded Bakelite case. The RCD shall be 4-pole for three phase circuit and 2-pole for single phase circuit. Three phase circuit breaker shall be interlocked internally so that earth leakage on any one phase shall trip all three phase of breaker simultaneously. Operating toggle shall have distinct OPEN and CLOSED position which shall be clearly labeled. General Specification C22 – Electrical Installation System 254. The RCD shall be equipped with durable silver tungsten contacts. Test push button shall be provided to simulate earth fault condition to enable testing of tripping mechanism. A leakage indication lamp or target indicator with manual reset button for visual indication of earth leakage tripped condition shall also be provided. Rated sensitivity current shall Not be in more than 100mA and shall be 30mA if used for final circuit protection. On final circuit combination clip in place MCB/RCD's shall be used. EA MCB fuse shall carry approximately 10 lighting fixtures.

C.2.4.3.7 EARTHING SYSTEM

Provide new electrical bonding for newly installed equipment to existing earthing system to satisfy the latest statutory obligations, regulations and specifications. All metal working associated with the electrical installation Not forming part of a phase or neutral circuit shall be bonded together and shall be solidly and effectively earthed. Pits and trenches for electrical earthing systems shall be excavated at positions and at the times instructed by the Contracting Officer/COR. After the electrical earthing systems have been installed fill material shall be deposited and compacted in the pits and trenches to a depth of 300 mm above the electrical earthing system. Fill material shall be sand or fine fill material which has been selected from the excavated material, and which is free of stones retained on a 20 mm BS test sieve. Fill material shall be compacted by hand rammers in a manner approved by the Contract Administrator.

C.2.4.3.8 GROUTING FOR ELECTRICAL INSTALLATIONS

Grouting to machine bases, crane rails, electrical equipment and other electrical and mechanical installations shall comply with the requirements stated in section C23.15. Grouting shall be carried out at the times instructed by the Contract Administrator and shall be completed within 7 days of the instruction unless otherwise permitted by the Contracting Officer/COR. The permission of the Contracting Officer/COR shall be obtained before items or equipment are grouted. The contractor shall inform the Contracting Officer/COR within 3 days, or a shorter

period agreed by the Contract Officer/COR, before grouting starts and shall allow the Contracting Officer/COR sufficient time to inspect the work that is to be grouted. Concrete surfaces shall be scabbed to remove laitance and loose material and to expose the aggregate before the item or equipment is installed in position. The voids to be grouted shall be cleaned and thoroughly wetted immediately before grouting. Excess water shall be removed by using a compressed air jet or by other methods agreed by the Contracting Officer/COR. Grout shall be mixed and placed by methods agreed by the Contracting Officer/COR. If grouting is to be carried out in two operations, holding down bolts shall be grouted into preformed pockets and sufficient time shall be allowed for the grout to cure and for the bolts to be tensioned before the remaining voids are grouted. Exposed grout surfaces shall have a uniform, dense and smooth surface free of trowel marks and which is produced by steel trowelling the surface under firm pressure. The exposed surfaces shall be cured by either:

(i) Using a liquid curing compound applied to the surface by a low-pressure spray until a continuous visible covering is achieved, or

(ii) Covering the surface with hessian or sacking. The hessian or sacking shall be lapped and

securely held in position and shall be kept damp for at least 4 days.

C.2.4.3.7 COMPLETION AND PROTECTION OF WORK FOR ELECTRICAL INSTALLATIONS

Work shall be completed to the conditions stated in section C23.16 before structures are made

available to others for electrical installations. The structure shall be clean, dry and free of dust. Work that in the opinion of the Contracting Officer/COR will produce large quantities of dust shall be complete. Holes and recesses, concealed electrical conduit systems and cable duct systems required for the installation shall be complete. Concrete surfaces on which items and equipment are to be installed shall be scabbed. Plinths, trenches, louvres, openings and similar work shall be complete and shall have hardened sufficiently to allow the installation to proceed.

Floors and slabs shall be complete to the specified finishes except that floor tiles shall Not be

laid until after the installation is complete. Plant rooms shall be complete, including fixtures and fittings, to a secure and weatherproof condition. Two sets of door keys for the plant room shall be provided for the Contracting Officer/COR. Paintwork and similar finishes in plant rooms shall be complete to undercoat level. Final coats shall Not be applied until after the installation is complete. Temporary power supplies and connections required for the installation shall be complete. The supply shall be metered and shall be a 415V, 3-phase supply of 80A maximum rating. Temporary power supplies shall be provided for the periods stated in the Contract. Structures in which electrical installations are being carried out shall be maintained in a clean, dry condition, free of dust, during the installation. The dust level in plant rooms shall be kept to a minimum by using industrial dust extractors of a type agreed by the Contracting Officer/COR during and after the installation. Temporary screens shall be installed to

separate dust-affected areas from the installations or temporary covers shall be installed around the installation.

C.2.4.4 INSPECTION, TESTING AND COMMISSIONING

01 *Inspection Of Work For Electrical Installations*

The contractor shall allow the Contracting officer/COR to inspect the following work for electrical installations:

(i) Completed concealed electrical conduit systems, cable duct systems, electrical earthing

systems and items and equipment which are to be grouted or covered up,

(ii) Items and equipment which are to be tested, and

(iii) Structures that are to be made available for electrical installations.

The contractor shall inform the Contracting Officer/COR three days, or such shorter period

agreed by the Contracting Officer/COR, before work is covered up, tested or made available.

General Specification C22 – Electrical Installation System 256

02 *Testing*

Concealed electrical conduit systems shall be tested to determine the earthing continuity.

The

system shall be tested:

(i) Before the system is cast in concrete or covered up,

(ii) After the system is cast in concrete or covered up, and

(iii) After electrical wiring that is installed by the contractor is complete.

Unless otherwise approved by the Contracting Officer/COR, the method of testing shall be in

accordance with Appendix 15 to the IEE Wiring Regulations, 15th Edition, 1981 issued by the

Institution of Electrical Engineers. The results of tests for earthing continuity shall comply with the IEE Wiring Regulations, 17th

Edition, 2008 issued by the Institution of Electrical Engineers.

The contractor shall carry out all the inspection and test listed below but Not limited to the

following:

(i) Visual inspection of low voltage installation,

(ii) Continuity of right final circuit conductors test,

(iii) Continuity of protective conductors tests, including main and supplementary equipotential

bonding test,

(iv) Insulation resistance test,

(v) Polarity test,

(vi) Earth fault loop impedance test,

- (vii) Functions of all protective devices test, and
- (viii) Functions of all items of equipment test.

03 Work Completion Certificate

In respect of the Electricity (Wiring) Regulations made under the Electricity Ordinance, the contractor shall be responsible for submitting work completion Certificates (Forms WR1) with associated drawings for the new electrical installation and modification of this project to the Contracting Officer/COR. The Forms shall be duly signed by a Registered Electrical Worker and a Registered Electrical Contractor. The contractor shall Note that they are completing the whole form including Part 1 & Part 2 (for certification of the design, installation, inspection and testing) and Part 3. The contractor shall also be responsible for collection of all completed WR1(A) forms from other specialists/contractors and then submit to the Contracting Officer/COR together with this WR1 forms. Testing and commissioning shall be performed on newly installed devices and equipment. Working drawings, as-fitted drawings, operating instructions and maintenance manuals shall be provided. 12 months operational maintenance and breakdown services during Defects Liability Period shall be provided.

C.2.4.5 OPERATION AND MAINTENANCE (O&M) MANUAL AND USER MANUAL

01 General

The contractor shall provide two types of manuals to the Contracting Officer/COR with all changes made to the installation during the course of the contract suitably incorporated. General Specification C22 – Electrical Installation System The O&M Manual is for use by the maintenance agent of the completed installation. It shall contain detailed technical information covering both operation and maintenance aspects of the installation. The User Manual seeks to give users of the completed installation an overview of the essential information of the installation. The contents of the manual should be concise and succinct for ease of comprehension by people with a Non-technical background.

02 Presentation

All manuals shall be written in English, unless otherwise specified. The text of descriptive parts shall be kept concise while at the same time ensure completeness. Diagrammatic materials shall also be supported by comprehensive descriptions. The Contract Administrator's approval

shall be obtained on this at the draft manual.

03 Structure And Contents Of O&M Manual

The detailed requirements, structure and contents of the O&M Manual shall be as specified

elsewhere in the Contract and shall include the following information under separate sections

where appropriate:

(i) Project Information includes:

Project title, site address, contract No., contract title, main contractor/lift contractor name, address, contact persons and their telephone/fax Nos., contract commencement date, substantial completion date and end date of maintenance period.

(ii) System Description:

(a) Type(s) of system(s) and equipment installed;

(b) Design criteria, design data and parameters;

(c) Locations of the system and major equipment, and what they serve;

(d) Description of operation and functions of the system and equipment; and

(e) General operating conditions, expected performance and energy and resources consumption where applicable.

(iii) List of Installed Equipment Schedule of all items of equipment and plant stating the location, name, model No., manufacturer's serial or reference No., manufacturer's design duties and data.

(iv) Spare Parts and Special Tools Lists:

(a) List of Spare Parts supplied by the Contractors including item descriptions, supplied quantities, model Nos., manufacturer's serial or reference Nos. and storage locations.

(b) Recommended Spare Parts List and Special Tools List including Manufacturers'/suppliers' recommendations for spare parts and special tools with item description, unit rate, recommended stock quantities as well as the agents for the spare parts and special tools.

(v) Manufacturers' Certificates/Guarantees:

(a) Manufacturers' certificates such as factory test certificates, laboratory test reports and guarantees and any others where required for the equipment and plants, etc.

(b) Originals of Statutory Inspection Certificate for various installations. Testing records & commissioning data (other than the types prescribed above), which are required under the Contract such as the T&C procedures, etc. to verify the compliance of the BS/E&M system's/equipment's performance with the contract requirements, are checked and endorsed separately by the Contracting Officer/COR and do Not form part of the O&M manuals.

(vi) Safety Precautions for Operation and Maintenance State, where applicable, hazard warnings and safety precautions of which the operation and maintenance staff need to be aware:

(a) mandatory requirements relating to safety;

(b) known hazards against which protection measures shall be taken; and

(c) known features or operational characteristics of the installed equipment or systems which may cause hazard and the related safety precautions.

(vii) Operation Instructions:

Instructions for the safe and efficient operation, under both Normal and emergency conditions, of the installed system which shall comprise:

- (a) an outline of the operating mode;
- (b) control logic and data (sequence, effect, limits of capability, modes and set points);
- (c) procedures and sequences for start-up and shut-down;
- (d) interlocks between equipment/system;
- (e) calling on of stand-by equipment;
- (f) precautions necessary to overcome known hazards;
- (g) means by which any potentially hazardous equipment can be made safe;
- (h) estimation of energy consumption and energy costs;
- (i) forms for recording plant running hours, energy consumption and energy costs; and
- (j) operating data such as running current, operating pressure, operating flow rates, etc.

(viii) Maintenance instructions:

Manufacturers' and the Contractor's recommendations and instructions for the maintenance of the installed equipment. Clear distinction should be made between planned tasks (preventive maintenance) and fault-repair tasks (corrective maintenance).

Instructions shall be given on EA of the following, as appropriate:

- (a) nature of deterioration, and the defects to be looked for;
- (b) isolation and return to service of plant and equipment;
- (c) dismantling and reassembly;
- (d) replacement of components and assemblies;
- (e) dealing with hazards which may arise during maintenance;
- (f) adjustments, calibration and testing; and
- (g) special tools, test equipment and ancillary services.

(ix) Maintenance schedules:

Proposed maintenance schedules for all the preventive maintenance tasks identified above. The schedules shall be based on both manufacturers' recommendations and other authoritative sources (e.g. statutory or mandatory requirements) and should include:

- (a) routine servicing;
- (b) inspections;
- (c) tests and examinations;
- (d) adjustments;
- (e) calibration; and
- (f) overhaul.

The frequency of EA task may be expressed as specific time intervals, running hours or number of completed operations as appropriate. Collectively, the schedules will form a complete maintenance cycle, repeated throughout the whole working life of the installation.

(x) Drawing Lists:

- (a) A complete list of as-built drawings identified with drawing number/reference;
- (b) A complete list of manufacturers' shop drawings with drawing number/reference, where applicable; and
- (c) A brief description of CD-ROM for these drawings.

(xi) Technical Literatures:

A complete set of manufacturers' literatures for all the plant and equipment installed in the

system. The contents of these literatures shall cover the following areas where applicable:

- (a) description of equipment with model numbers highlighted;
- (b) performance - behavioral characteristics of the equipment;
- (c) applications - suitability for use;
- (d) factory/laboratory test reports, detailed drawings, circuit diagrams;
- (e) methods of operation and control;
- (f) operation instructions;
- (g) cleaning and maintenance requirements;
- (h) plants, materials and space required for maintenance;
- (i) protective measures and safety precautions for operation and maintenance; and
- (j) part lists.
- (xii) Contact addresses and telephone numbers of suppliers of major equipment.

04 Structure And Contents Of User Manual

The detailed requirements, structure and contents of the User Manual shall include, where applicable, the following information:

(i) Project Information

This shall include:

Project title, site address, contract No., contract title, contract commencement date, substantial completion date and end date of Maintenance Period.

(ii) System Description

- (a) Type(s) of system(s) and equipment installed, and their purposes;
- (b) Locations of major plant rooms and riser ducts;
- (c) Brief description of the operation and functions of the systems and equipment; and
- (d) Listing of set points which can be adjusted by the user to suit their operation needs.

(iii) Schedule of Major Plant Rooms and Installed Equipment

- (a) Schedule of major plant rooms and riser ducts including their locations; and
- (b) Schedule of major equipment and plants including their locations and serving areas.

(iv) Safety Precautions for Operation

Any safety precautions and warnings signals that the users shall be aware of in the daily operation of the various systems and equipment in the installation including:

- (a) mandatory requirements relating to safety;
- (b) features or operational characteristics of the installed systems or equipment which may cause hazard and the related safety precautions;
- (c) protective measures and safety precautions for operation; and
- (d) list of warning signals and the related meanings that the user shall be aware of and the actions to be taken.

(v) Operation Instructions

Instructions for the safe and efficient operation, under both Normal and emergency conditions, of the installed system which shall comprise:

- (a) an outline of the operating mode;
- (b) step by step operation instructions for systems and equipment that are to be operated by the user, including at least procedures for start-up and shut-down;

(c) means by which any potentially hazardous situation can be made safe; and
(d) cleaning and basic maintenance procedures.

(vi) List of Statutory Periodic Inspections and Tests

A schedule of periodic inspections and tests that owner and/or user of the installation have

to arrange to achieve compliance with the requirements stipulated in the relevant Laws of Kenya. The frequency of such inspections and tests shall be expressed in specific time intervals.

(vii) Drawings

A set of selected as-built drawings which shall be able to illustrate to the user the general layout of the completed installation.

(viii) Photographs

A set of The O&M Manual is for use by the maintenance agent of the completed installation. It shall contain detailed technical information covering both operation and maintenance aspects of the installation. The User Manual seeks to give users of the completed installation an overview of the essential information of the installation. The contents of the manual should be concise and succinct for ease of comprehension by people with a Non-technical background.

02 PRESENTATION

All manuals shall be written in English, unless otherwise specified. The text of descriptive parts

shall be kept concise while at the same time ensure completeness. Diagrammatic materials

shall also be supported by comprehensive descriptions. The Contracting Officer/COR's approval

shall be obtained on this at the draft manual.

03 STRUCTURE AND CONTENTS OF O&M MANUAL

The detailed requirements, structure and contents of the O&M Manual shall be as specified

elsewhere in the Contract and shall include the following information under separate sections

where appropriate:

(i) Project Information include:

Project title, site address, contract No., contract title, main contractor/lift contractor name, address, contact persons and their telephone/fax Nos., contract commencement date, substantial completion date and end date of maintenance period.

(ii) System Description

(a) Type(s) of system(s) and equipment installed;

(b) Design criteria, design data and parameters;

(c) Locations of the system and major equipment, and what they serve;

(d) Description of operation and functions of the system and equipment; and

(e) General operating conditions, expected performance and energy and resources consumption where applicable.

(iii) List of Installed Equipment Schedule of all items of equipment and plant stating the location, name, model No., manufacturer's serial or reference No., manufacturer's design duties and data.

(iv) Spare Parts and Special Tools Lists

(a) List of Spare Parts supplied by the Contractors including item descriptions, supplied quantities, model Nos., manufacturer's serial or reference Nos. and storage locations.

(b) Recommended Spare Parts List and Special Tools List including Manufacturers'/suppliers' recommendations for spare parts and special tools with item description, unit rate, recommended stock quantities as well as the agents for the spare parts and special tools.

(v) Manufacturers' Certificates/Guarantees

(a) Manufacturers' certificates such as factory test certificates, laboratory test reports and guarantees and any others where required for the equipment and plants, etc.

(b) Originals of Statutory Inspection Certificate for various installations. Testing records & commissioning data (other than the types prescribed above), which are required under the Contract such as the T&C procedures, etc. to verify the compliance of the BS/E&M systems/equipment's performance with the contract requirements, are checked and endorsed separately by the Contracting Officer/COR and do Not form part of the O&M manuals.

(vi) Safety Precautions for Operation and Maintenance State, where applicable, hazard warnings and safety precautions of which the operation and maintenance staff need to be aware:

(a) mandatory requirements relating to safety;

(b) known hazards against which protection measures shall be taken; and

(c) known features or operational characteristics of the installed equipment or systems which may cause hazard and the related safety precautions.

(vii) Operation Instructions

Instructions for the safe and efficient operation, under both Normal and emergency conditions, of the installed system which shall comprise:

(a) an outline of the operating mode;

(b) control logic and data (sequence, effect, limits of capability, modes and set points);

(c) procedures and sequences for start-up and shut-down;

(d) interlocks between equipment/system;

(e) calling on of stand-by equipment;

(f) precautions necessary to overcome known hazards;

(g) means by which any potentially hazardous equipment can be made safe;

(h) estimation of energy consumption and energy costs;

(i) forms for recording plant running hours, energy consumption and energy costs; and

(j) operating data such as running current, operating pressure, operating flow rates, etc.

(viii) Maintenance instructions Manufacturers' and the Contractor's recommendations and instructions for the maintenance of the installed equipment. Clear distinction should be made between planned tasks (preventive maintenance) and fault-repair tasks (corrective maintenance).

Instructions shall be given on EA of the following, as appropriate:

(a) nature of deterioration, and the defects to be looked for;

- (b) isolation and return to service of plant and equipment;
- (c) dismantling and reassembly;
- (d) replacement of components and assemblies;
- (e) dealing with hazards which may arise during maintenance;
- (f) adjustments, calibration and testing; and
- (g) special tools, test equipment and ancillary services.

(ix) Maintenance schedules

Proposed maintenance schedules for all the preventive maintenance tasks identified above. The schedules shall be based on both manufacturers' recommendations and other authoritative sources (e.g. statutory or mandatory requirements) and should include:

- (a) routine servicing;
- (b) inspections;
- (c) tests and examinations;
- (d) adjustments;
- (e) calibration; and
- (f) overhaul.

The frequency of EA task may be expressed as specific time intervals, running hours or number of completed operations as appropriate. Collectively, the schedules will form a complete maintenance cycle, repeated throughout the whole working life of the installation.

(x) Drawing Lists

- (a) A complete list of as-built drawings identified with drawing number/reference;
- (b) A complete list of manufacturers' shop drawings with drawing number/reference, where applicable; and
- (c) A brief description of CD-ROM for these drawings.

(xi) Technical Literatures

A complete set of manufacturers' literatures for all the plant and equipment installed in the

system. The contents of these literatures shall cover the following areas where applicable:

- (a) description of equipment with model numbers highlighted;
 - (b) performance - behavioral characteristics of the equipment;
 - (c) applications - suitability for use;
 - (d) factory/laboratory test reports, detailed drawings, circuit diagrams;
 - (e) methods of operation and control;
 - (f) operation instructions;
 - (g) cleaning and maintenance requirements;
 - (h) plants, materials and space required for maintenance;
 - (i) protective measures and safety precautions for operation and maintenance; and
 - (j) part lists.
- (xii) Contact addresses and telephone numbers of suppliers of major equipment.

04 STRUCTURE AND CONTENTS OF USER MANUAL

The detailed requirements, structure and contents of the User Manual shall include, where applicable, the following information:

(i) Project Information

This shall include:

Project title, site address, contract No., contract title, contract commencement date, substantial completion date and end date of Maintenance Period.

(ii) System Description

- (a) Type(s) of system(s) and equipment installed, and their purposes;
- (b) Locations of major plant rooms and riser ducts;
- (c) Brief description of the operation and functions of the systems and equipment; and
- (d) Listing of set points which can be adjusted by the user to suit their operation needs.

(iii) Schedule of Major Plant Rooms and Installed Equipment

- (a) Schedule of major plant rooms and riser ducts including their locations; and
- (b) Schedule of major equipment and plants including their locations and serving areas.

(iv) Safety Precautions for Operation

Any safety precautions and warnings signals that the users shall be aware of in the daily operation of the various systems and equipment in the installation including:

- (a) mandatory requirements relating to safety;
- (b) features or operational characteristics of the installed systems or equipment which may cause hazard and the related safety precautions;
- (c) protective measures and safety precautions for operation; and
- (d) list of warning signals and the related meanings that the user shall be aware of and the actions to be taken.

(v) Operation Instructions

Instructions for the safe and efficient operation, under both Normal and emergency conditions, of the installed system which shall comprise:

- (a) an outline of the operating mode;
- (b) step by step operation instructions for systems and equipment that are to be operated by the user, including at least procedures for start-up and shut-down;
- (c) means by which any potentially hazardous situation can be made safe; and
- (d) cleaning and basic maintenance procedures.

(vi) List of Statutory Periodic Inspections and Tests

A schedule of periodic inspections and tests that owner and/or user of the installation have

to arrange to achieve compliance with the requirements stipulated in the relevant Laws of Kenya. The frequency of such inspections and tests shall be expressed in specific time intervals.

(vii) Drawings

A set of selected as-built drawings which shall be able to illustrate to the user the general layout of the completed installation.

(viii) Photographs

A set of photographs with suitable captions to illustrate to the user the appearance and locations of devices which require:

- follow the instructions in Section L of the solicitation,
- complete the required portions of the attached document, and
- submit your proposal to the address shown on the Standard Form 1442 that follows this letter.

C.2.5 CARPENTRY SERVICES

The contractor shall perform the following carpentry services using the checklist in Section J, Exhibit 2.

The contractor shall check and repair or replace warped flush doors, kitchen cabinet drawers, curtain rods and sliding doors throughout the house as required by the task order. The contractor shall remove protruding nails, hooks and unnecessary wires prior to painting work. The contractor shall check and replace torn aluminum insect screens throughout the residence. The contractor shall re-caulk around plumbing fixtures, door frames and kitchen counters as required by the task order.

01 General

Timber shall generally comply with BS EN 942:1996 and shall be of mature growth, properly seasoned and sawn square. The timber shall be free from irregularities such as wood wasp holes, large loose or dead knots, splits or other defects that will reduce its strength. Pin holes and worm holes may be permitted in a slight extent in a small number of pieces, subject to the acceptance of the Contracting Officer/COR, by examining the presence of active infestation of the materials, extent of impairment of the material and impact to the appearance of the finished faces of joinery work. Timber shall be stored in a dry and well ventilated place and be protected from the weather. Timber shall be stacked properly to prevent distortion.

C.2.5.1 WOODEN FLOOR STANDARDS

Wood block flooring shall be approved high density resin bonded fibreboard flooring or other approved hardwood as specified. Finished thickness shall be 20 mm (minimum). Blocks shall be 300 mm x 50 mm in size and color matched. The base shall be clean and dry. Wood blocks shall be fixed to screed with an approved cold bitumen/rubber emulsion adhesive and laid to herringbone or basket pattern, as specified, with straight border two blocks (minimum) wide. 5 mm expansion gap shall be provided at perimeter of areas of wood block flooring, and filled with one of the following:

- (i) Cork strip
- (ii) Foam rubber strip

Surface of wood block flooring shall be sanded with an electric surfacing machine using sequentially graded abrasive paper to obtain a smooth surface ready to receive sealer or polish.

Machine shall be fitted with dust bag to control the release of dust.

C.2.5.2 PARQUET FLOORING

Wood parquet flooring shall be obtained from a sustainable source as previously specified. EA block shall be 120 mm x 25 mm in size and 8 mm thick, and shall be tongued & grooved. The base shall be clean and dry. Blocks shall be laid on one coat of an approved cold bitumen rubber emulsion adhesive applied to the screed with a serrated trowel. Flooring shall be left ready to receive sealer or polish. NOTE: The curing time for a traditional sand cement screed is 7-10 days for a centimeter of thickness and the level of residual humidity must be checked to be below 2% before laying wooden floors.

C.2.6 ROOFING SERVICES

The contractor shall perform the following roofing services using the checklist in Section J, Exhibit 2.

The contractor shall repair leaky roof including membrane and wood strip for roof tile and replace old rain gutter and downspout by task order without any other damage on the existing roof structure. The contractor shall furnish all supplies and equipment needed for this job and finish all necessary jobs within one day to avoid the unfinished roof surface from being rained .

C.2.6.1 MATERIALS

01 Mastic Asphalt

Mastic asphalt (rock asphalt) roofing shall Not be used for re-roofing projects. In case for roof repair and maintenance, mastic asphalt for asphalt roofing shall comply with BS 6925:1988, Type R988.

02 Proprietary Flexible Sheet Membrane

Proprietary flexible sheet membrane shall be capable of accommodating unanticipated cracks of up to 0.6mm wide without losing its waterproofing properties, and the properties of the membrane in lap shear and lap peel shall Not be less than 110 kN/m² and 3.3 kN/m respectively at site condition. Certificates together with complete test reports to substantiate that the materials supplied meet the requirements specified shall be submitted when the material is delivered to Site.

03 Proprietary Liquid Applied Membrane

Proprietary liquid applied, elastomeric waterproofing shall be made of pitch modified polyurethane, and shall be submitted for approval by the Contracting Officer/COR. The membrane shall be capable of an elongation of Not less than 400% to accommodate

cracks up to 2mm without losing its waterproofing properties, and its tensile strength shall exceed 1.6 kN/m². The tear resistance and adhesion strength shall Not be less than 12 N/mm and 2.6 N/mm respectively at site condition. It shall be applied in strict accordance with the manufacturer's instructions. Certificates together with complete test reports to substantiate that the materials supplied meet the requirements specified shall be submitted when the material is delivered to Site.

04 Isolating Membrane

Isolating membrane for asphalt roofing shall be black sheathing felt complying with BS EN13707:2004, Class 4A(i) and shall weigh at least 17 kg per 810mm wide by 25 m long roll.

05 Bitumen Dressing Compound

Bitumen dressing compound for asphalt roofing shall be cut-back bitumen, Grade 25 sec or other grade approved by the Contracting Officer/COR.

06 BitumiNous Paint

BitumiNous paint for asphalt roofing shall comply with BS 6949:1991.

07 Sand

Sand for finishing the surface of asphalt roofing shall be fine, clean sand and shall be graded such that 100% passes a 600 µm BS test sieve and 100% is retained on a 300 µm BS test sieve.

08 Stone Chippings

Stone chippings for asphalt roofing shall be white stone chippings and shall be graded such that 100% passes a 5 mm BS test sieve and 100% is retained on a 2.36 mm BS test sieve.

09 Reflective Paint

Reflective paint for asphalt roofing shall be a proprietary type approved by the Contracting Officer/COR and shall be bituminous based aluminum paint or paint compatible with bituminous surfaces.

10 Metal Lathing

Metal lathing for asphalt roofing shall be zinc coated or stainless steel expanded metal lathing complying with BS EN 13658-1:2005, BS EN 13658-2:2005. The reinforcement shall be at least 10mm short way of mesh and shall be at least 0.46mm thick.

C.2.6.2 PROPRIETARY FLEXIBLE SHEET MEMBRANE AND LIQUID APPLIED MEMBRANE –WORKMANSHIP

C.2.6.2.1 PREPARATION, APPLICATION AND PROTECTION

01 General

The work shall be carried out in accordance with BS 8102:1990 and BS 8000:Pt. 4:1989. Particular attention shall be drawn to the following before installation:

(i) The Works shall be supervised by a competent representative from the contractor/ manufacturer. Inspection shall be carried out and written approval shall be given by this representative for EA and every stage of work, from the surface preparation to the completion of the protection coating. Formal approval for EA and every stage of work as

mentioned shall be carried out by the Contracting Officer/COR.

02 *Existing Membrane*

For repair or maintenance work, existing tiles, existing layers of felt or other protective covering

shall be taken up and removed to expose existing asphalt or roof membrane. Cement and sand screed, minimum 25 mm thick or self-leveling screed shall be laid to produce an even surface to approved falls to receive the new roofing system. The contractor shall take the responsibility for repairing and making good the existing roof slab.

03 *Surface Preparations For Sheet Membrane*

Surfaces to which tanking is to be applied shall be level and free from irregularities such as

ridges, dips, fins and concrete or mortar droppings. The horizontal surfaces of the concrete

shall be given a wood-floated finish and be laid flat and true to allow the specified thickness

of mastic asphalt to be applied uniformly. Where vertical concrete is very smooth and in order

to provide a satisfactory key for the mastic asphalt, the contractor shall remove the surface laitance by wire brushing and apply an approved proprietary high bond primer. Excessive mold oil shall Not be used in the vertical form.

04 *Surface Preparation For Liquid Membrane*

The concrete blinding layer and basement wall shall be properly cured. All surfaces to be waterproofed shall be clean, sound, smooth, dry and free of cracks, void and roughness, which may interfere the adhesion between the substrate and the waterproofing membrane. Porous concrete or other absorbent surfaces shall be sealed and all surface defects revealed after the

inspection shall be repaired by appropriate method as recommended by the manufacturer prior

to installation of base coat. All critical right angle bends shall have a cant strip or fillet installed prior to application. At vertical termination, 20 x 20 mm recess groove shall be formed for the waterproofing membrane to be tucked into.

05 *Free Of Moisture*

No work shall be carried out when there is surface moisture.

06 *Protection Of Existing Roof*

The whole roof shall be left watertight when No work is in hand. Where coverings have been removed and Not yet replaced, the contractor shall provide covering (ropes and hold-fasts to hold down the coverings) by means of tarpaulin or other sheeting to cover all areas of roofs. Overlaps shall be sealed with tape and sheets effectively dressed into outlets. During working hours, all roofing outlets shall be protected to prevent debris falling into rainwater pipes. The outlets shall be opened and cleared at the end of the working day and the roof shall be swept clean to ensure effective drainage. All pipework, ducting and other services running on top of the existing roof shall be protected. Provision of new pipe supports shall be included as necessary.

07 *Laying Of Proprietary Sheet Membrane*

Proprietary flexible sheet membrane shall be primed, laid, lapped and finished in strict

compliance with the manufacturer's recommendations. Before commencing the works, the contractor shall demonstrate on site that all adhesive and materials are fully compatible. No work shall be undertaken when the surface moisture exceeds the permissible, as tested by the moisture testing equipment on site. The spreading of adhesive over large areas resulting in setting before placing of membrane shall be forbidden. Records of the adhesive used shall be kept and checked against the agreed spreading rate of membrane. Bubbles formed in the membrane shall be made good in accordance with the manufacturer's technical literature.

08 Application Of Liquid Membrane

Liquid applied waterproofing membrane shall be applied in strict accordance with the manufacturer's instructions. It can be applied by roller, trowel or airless spray (only in well ventilated areas) in strict accordance with the manufacturer's specification and literature. At least 24 hours of curing shall be allowed for the first coat before over-coating with the second coat. Another 24 hours minimum shall be allowed for curing before protection.

09 Bubbles

If bubbles form in the membrane, the affected area shall be cut open and made good as far as the manufacturer's technical literature specifically allows. Otherwise, the whole area shall be stripped, cleared and the surface shall be prepared again and the work shall be re-executed.

10 Finishes To Inaccessible Roofs

A light-reflective paint or similar finish applicable to the particular roofing system shall be applied.

11 Finishes To Accessible Roofs

The roofing system shall be designed to allow for increased wear due to frequent foot traffic or shall be protected by precast concrete tiles, (laid on cement and sand mortar) or other materials approved by the Contracting Officer/COR. Traffic on roof shall Not be allowed until 4 days after completion of tiling and subsequently only light traffic shall be permitted for a further 10 days.

12 Insulation

Insulation shall either have integrally bonded hard surfaces on both sides or be protected by inert hard sheeting or reinforced screed.

13 Protection Of Proprietary Sheet Membrane

Protection shall be applied within 2 working days on completion of EA section of the Works. For horizontal work, the protection shall be a screed of cement and sand mortar 50 mm in thickness. For ease of placing, this horizontal protection coating shall be very workable, slump of less than 100 mm is Not permitted. Temporary protection for the lapping area at

the end of a working day shall be strictly in accordance with the manufacturer's recommendation. For vertical work, it shall be protected against damage by the erection of a masonry wall or protective boarding.

14 Protection Of Liquid Applied Membrane

The membrane must be protected from damage by future operations and other trades. Approved protection boards as recommended by the manufacturer shall be installed immediately after the membrane has cured.

C.2.6.3 MEMBRANE WATERPROOFING SHEET TORCH APPLIED

General: All work shall be done in accordance with the manufacturer's recommendations. The entire system shall be applied by an applicator certified by the manufacturer. The Engineer shall receive written certification from the manufacturer regarding the applicator's qualifications at least two weeks prior to the application of any system component. The certification shall apply only to the named individual(s) performing the application. At least two weeks prior to the scheduled work, the contractor shall submit to the U.S. Embassy Nairobi the manufacturer's recommended installation method which shall include, but Not be limited to:

- 1) substrate preparation requirements/methods,
- 2) substrate moisture check procedure,
- 3) primer application procedure,
- 4) waterproof membrane application and installation procedure
- 5) waterproof membrane repair procedure.

An experienced technical representative of the membrane's manufacturer shall be available during the installation of the torch-applied membrane waterproofing system. The representative shall provide to the contractor aid and instruction as required to obtain an installation satisfactory to the Engineer. The contractor shall have on site all necessary product information relative to proper installation of the membrane system.

Surface Conditions: The surface of the concrete shall have a smooth, fine textured finish. The surface of the deck to be membraned shall be free of sharp protrusions or depressions greater than 1/8". Areas Not meeting this requirement shall be ground to form a smooth transition across the deck surface. The entire bridge deck and the approach slabs shall be abrasive blast cleaned with oil free air to achieve an anchor profile that is clean and free of laitance, oil, and foreign materials. Prior to blasting the surface shall be dry.

Weather limitations: Waterproofing shall Not be done in rainy weather or when the temperature is below 40° F without the authorization of the engineer.

Application of Primer: Prior to application of primer, the concrete deck shall be cured such that the moisture content is 6% or less. The primer shall only be applied when the moisture content of the substrate surface is 6 percent or less, and when the temperature of the substrate exceeds the dew point by at least 5° F. Moisture tests shall be performed (minimum 1 EA per every 50 square yards) at locations determined by, and in the presence of, the engineer using a contractor-supplied portable electronic surface moisture meter that is calibrated annually and a copy of the calibration certification shall accompany the meter.

Immediately prior to priming, air temperature and substrate temperature shall be at least 40° F and rising.

The primer shall be applied in one coat so that it thoroughly covers the entire surface to be membraned with an overall coverage rate of 200 s.f./gal or as recommended by the manufacturer. The primer may be applied by brush, roller, or sprayer. The primer shall cure tack-free in accordance with the manufacturer's recommendations before application of the waterproofing membrane.

Application of Membrane: The waterproofing membrane shall be applied by equipment recommended by the manufacturer and approved by the Engineer. The equipment shall be capable of applying the membrane in a uniform manner onto the prepared substrate in accordance with the manufacturer's recommendations to assure bond with the primed surface and elimination of air bubbles.

Unless required otherwise by the manufacturer, butt the first strip as close as possible to the face of the curb. The subsequent membrane strips shall be installed in a shingled pattern so that water is permitted to drain to the low areas of the deck without accumulating against seams. The laps shall be a minimum of 3". Laps shall be staggered at the beginning and ends of rolls, shall overlap the previous roll and shall be sealed in accordance with the manufacturer's recommendations.

The waterproofing membrane shall be welded by torch onto the prepared substrate in accordance with the manufacturer's recommended procedure to assure bond with the primed surface and elimination of air bubbles. The contractor shall be responsible for the protection of adjacent areas.

In small areas, the membrane shall be hand welded by torch around drains, joints, and along the curb as directed by the engineer.

Damaged membrane or membrane that is Not properly bonded to the deck surface shall be patched or repaired in accordance with the manufacturer's recommendations.

If so directed, additional strips of membrane shall be placed over any other areas of the concrete surface which are believed to require special attention.

Prior to suspension of work for any reason, all exposed edges shall be heated, troweled and sealed in accordance with the manufacturer's recommendations.

Curb Treatment: After all the membrane has been welded to the deck, the curb bitumen shall be placed along the curb edges to a minimum width of 18".

The curb bitumen shall be contained in double jacketed melters or shall be delivered directly to the job site by tanker truck. Curb bitumen in melters shall be heated to a temperature between 300 and 460° F. The temperature of the curb bitumen in tanker trucks shall Not exceed 480° F. Melters and tanker trucks shall be equipped with approved thermometers. Melters shall be equipped with an agitation system to prevent local overheating.

Protection of Membrane: No traffic shall be permitted on an exposed membrane surface. Care shall be exercised to prevent damage to the completed membrane, especially during paving operations. All damaged areas shall be cleaned and patched to the satisfaction of the engineer.

The specified hot mix asphalt shall be placed on the membrane within three days after application. Failure to adhere to this requirement may result in the development of an excessive amount of blisters prior to, during, and following the pavement application.

A rubber tired or rubber-tracked paver shall be used to place the bottom course of bituminous mix.

The temperature of the bituminous concrete pavement to be placed on the membrane shall be as recommended by the membrane manufacturer and approved by the engineer.

If recommended by the manufacturer, the contractor shall maintain a small supply of Portland cement on the project during the time of paving. The cement dust shall be sparingly cast over the membrane surface to reduce tackiness and thereby prevent the paver or truck tires from sticking to the membrane and damaging it.

The paver operator shall be directed Not to ride the curb lines while paving such areas since the screed shoe may damage the materials previously applied on the vertical curb face.

Protection of Exposed Surfaces: The contractor shall exercise care in the application of the waterproofing materials to prevent surfaces Not receiving treatment from being spattered or marred. Particular reference is made to the face of curbs, copings, finished surfaces, substructure exposed surfaces, and outside faces of the bridge. Any material that spatters on these surfaces shall be removed and the surfaces cleaned to the satisfaction of the engineer.

Care shall be taken to prevent injury to the finished membrane by the passage of men and equipment. Vehicular traffic shall Not be allowed to pass over the finished membrane waterproofing. Any damage which may occur shall be patched or repaired in accordance with the manufacturer's recommendations and any significant areas showing a lack of bond shall be cause for removal and re-application of the waterproofing membrane at No additional cost to the State.

Prior to application of bituminous overlay, any blisters found in the applied membrane shall be punctured with a torch-heated pick inserted at an approximate 45° angle. Blisters found subsequent to paving shall be punctured in the same manner.

Drainage holes, if and where required, will be provided by the State before the start of the contractor's work. The waterproofing membrane shall be neatly slit and folded down into the drain holes. An 8-inch square of ¼-inch galvanized wire mesh (23 gauge) supplied by the contractor, shall be placed over the drain then the membrane system torch-welded as required.

At the vertical expansion joints between the wing wall stems and the abutment stems, a single sheet of membrane shall be applied to cover the joint, and torch applied as required to achieve acceptable adhesion to the concrete surfaces. The concrete surfaces shall be cleaned prior to application of the strip. The width of the strip shall be 10" minimum or as recommended by the Manufacturer. The membrane shall be shingled a minimum of 3" wherever laps are required. Damp proofing shall be applied after the torch applied sheets have been installed.

C.2.6.4 TESTING

01 Testing of membrane

Sampling and testing of sheet membrane shall be agreed with the Contracting Officer/COR and

the results shall comply with the properties given in Clause B8.1-02 & 03. If the samples do Not comply with the required properties, the whole consignment, from which the unacceptable samples have been taken, shall be rejected, in which case the rejected consignment shall be removed from the site.

02 Moisture Test

Moisture testing equipment shall be available on site to monitor the moisture content of the roof structure and the various elements of the roof system. All necessary precaution shall be taken to ensure the full integrity of the roofing system.

03 Flooding Test

The test shall include sealing all outlets and if necessary constructing dams to compartmentalize large roofs. The roof shall be flooded for 24 hours. After flooding, all outlet

blockages and dams shall be removed to drain the roof. Debris shall Not be permitted to enter into the drainage pipework. At a period between 24 and 48 hours from release of the water, an infra-red scan shall be carried out by an independent specialist contractor at the contractor's expense to establish if there has been penetration through the membrane. Infra-red scanning report shall be sent directly by the specialist contractor to the Contracting Officer/COR. In the event of failure, repairs and subsequent infra-red scanning tests shall be carried out at the contractor's expense until the waterproofing area is shown to be watertight.

04 Warranty

Duly executed warranty shall be submitted by the contractor in accordance with the Contract.

The completed installation shall be guaranteed against defects of materials and workmanship by the contractor for a period of 10 years from the date of completion stated in the certificate of completion with respect to the works for use as an exposed roof membrane in Kenya. The system shall be designed to withstand the conditions of the Kenyan climate. The warranty shall cover the roofing system in its entirety. The warranties shall be extended to cover all aspects of the roofing project executed by the contractor including adhesion and structural integrity of materials used.

C.2.7 MASONRY SERVICES

The contractor shall perform the following masonry services using the checklist in Section J, Exhibit 2.

The contractor shall replace cracked or discolored ceramic tiles in the bath room and foyer including the cement mortar waterproofing work. The contractor shall replace cracked or broken bath room fixtures as require by task order. The contractor shall repair the cracked or damaged plastering ceiling and masonry walls with joint compound or spackle throughout the residence.

C.2.7.1 WATERPROOFING WORKS TO FLOWER BED FOR DOMESTIC UNITS

01 Carefully Remove And Cart Away

All plant, flower, soil and finishes of existing flower bed for domestic unit, including plaster & screed, waterproofing, sealant, and wire mesh shall be removed to expose bare and sound concrete substrate. All debris and loose matters shall be cleaned off and surface shall be made good to receive new tanking finish. The contractor shall also remove from the surface of the screed any contaminants such as grease, oil, moss and lichen, using two coats of fungicidal wash and rinse with clean water. All plant, flower and soil, etc. shall be protected and set aside for reinstatement.

02 Saw Cutting And Hacking Off

All existing defective concrete (incl. spalling, honeycomb, void, etc.) with render, plaster, screed shall be saw-cut and hacked off down to the sound concrete substrate and exposing the reinforcement. Rust on reinforcement shall be removed, concrete surface shall be prepared and rectified from defective, honeycomb, void and spalled concrete to all internal wall and floor of the potable water tank. Contracting Officer/COR approved proprietary repair mortar system shall be applied to areas of removed defective concrete. Repairs shall be carried out strictly in accordance with the manufacturer's instructions and recommendations.

03 Waterproof Render

The contractor shall supply and apply Not less than 20mm thick 1:3 cement sand render with Contracting Officer/COR approved waterproofing admixture to entire wall and floor of flower bed. The render shall be laid to fall at Not less than 1:100 and embedded with zinc coated hexagon steel wire mesh reinforcement with 19mm size to the floor. All cement sand render shall be mixed in accordance with the manufacturer's instructions. Water test shall be carried out by flooding the whole flower bed for Not less than 24 hours. The contractor shall invite the Contracting Officer/COR for joint inspection for any leakage from the flower bed. Upon passing the flooding test, all temporary blockage to water outlets shall be removed to drain the flooded area. The discharge of the flooding water shall be carried out in a controlled manner under close supervision by the contractor. Damage to pipe sleeves, pipe fittings and brackets due to sudden thrust of discharged water shall be avoided. No debris shall be drained into the drainage system.

04 Refill

Soil shall be refilled and flower and plant, etc. shall be replanted to the flower bed.

C.3 MAJOR REPAIRS

The contractor shall immediately inform the COR or the Embassy Buildings Management Office of major safety problems and the need for major and/or specialized repairs to any part of the serviced area of the residential unit. The contractor shall also inform the COR of a major problem in the residential unit in a system or area that is Not being serviced as well. The contractor shall be liable for the costs for any damage that occurs as a result of the Contractor's negligence in its duty to inform the COR. The contractor shall make efforts to minimize such trouble or damage in systems or areas being serviced until proper corrective action can be taken.

Major and specialized repairs shall be carried out by the Government, independent of this contract.

C.4 CONTRACTOR PERSONNEL

All personnel assigned by the contractor shall for the performance of the respective services shall be regular employees of the Contractor, and shall be supervised by the Contractor. There shall be No employer-employee relationship between the

Government and the personnel. Subcontractors may only be employed with the express written consent of the Contracting Officer.

C.5 SUPERINTENDENCE BY CONTRACTOR

The entire operation of the contracted services shall be superintended by the Contractor's bilingual (English/Kiswahili) liaison. The liaison shall coordinate the performance of the contracted services with the needs of the Government.

C.6 QUALITY ASSURANCE

The contractor shall institute an appropriate inspection system including:

- (a) Develop and maintain checklists of duties to be carried out,
- (b) Ensure these duties are carried out by the supervisory staff and senior employees, and
- (c) Perform inspections at all work locations to determine whether the various services are being performed according to the contract requirements.

The contractor shall provide copies of all inspection reports to the COR.

The contractor shall promptly correct and improve any shortcomings and/or substandard conditions Noted in such inspections. The contractor shall to the attention of the Contracting Officer or COR, for disposition, any conditions beyond the responsibility of the Contractor.

The contractor shall deliver to the COR a report of all Noted discrepancies. The COR will review the contractor's submission and, if found accurate, sign off on discrepancy report.

The contractor shall be responsible for the repair or correction of these damages at No change in any contract values.

C.7 INSPECTION BY GOVERNMENT

The services performed and the supplies furnished for this contract will be inspected from time to time by the COR, or his/her authorized representatives, to determine that all work is being performed in a satisfactory manner, and that all supplies are of acceptable quality and standards.

The contractor shall be responsible for any corrective action, within the scope of this contract, which may be required by the Contracting Officer as a result of such inspection.

C.8 MONTHLY REPORT

The contractor shall deliver a monthly report detailing the information required as shown in Exhibit 3. Reports shall be delivered as indicated in Section F.3.

SECTION D - PACKAGING AND MARKING

D.1 The contractor shall mark materials delivered to as follows:

Facility Management Office
U.S. Embassy Nairobi
P.O. Box, 606 - 0621
Nairobi Kenya

SECTION E - INSPECTION AND ACCEPTANCE

E.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at: <http://acquisition.gov/far/index.html> or <http://farsite.hill.af.mil/vffara.htm>. Please Note these addresses are subject to change.

If the Federal Acquisition Regulation (FAR) is Not available at the locations indicated above, use the Department of State Acquisition website at <http://www.statebuy.state.gov/> to access the links to the FAR. You may also use an Internet "search engine" (for example, Google, Yahoo or Excite) to obtain the latest location of the most current FAR.

The following Federal Acquisition Regulation clause(s) is/are incorporated by reference:

<u>CLAUSE</u>	<u>TITLE AND DATE</u>
52.246-4	INSPECTION OF SERVICES - FIXED PRICE (AUG 1996)
52.246-12	INSPECTION OF CONSTRUCTION (AUG 1996)

SECTION F - DELIVERIES OR PERFORMANCE

F.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at: <http://acquisition.gov/far/index.html> or <http://farsite.hill.af.mil/vffara.htm>. Please Note these addresses are subject to change.

If the Federal Acquisition Regulation (FAR) is Not available at the locations indicated above, use the Department of State Acquisition website at <http://www.statebuy.state.gov/> to access the links to the FAR. You may also use an Internet “search engine” (for example, Google, Yahoo or Excite) to obtain the latest location of the most current FAR.

The following Federal Acquisition Regulation clause(s) is/are incorporated by reference:

<u>CLAUSE</u>	<u>TITLE AND DATE</u>
52.242-14	SUSPENSION OF WORK (APR 1984)
52.242-15	STOP-WORK ORDER (AUG 1989)
52.242-17	GOVERNMENT DELAY OF WORK (APR 1984)
52.211-12	LIQUIDATED DAMAGES – CONSTRUCTION (SEPT 2000)
(a)	If the contractor fails to complete the work within the time specified in the contract, or any extension, the contractor shall pay liquidated damages to the Government in the amount of US\$100.00 for EA calendar day of delay until the work is completed or accepted.
(b)	If the Government terminates the Contractor’s right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.
	(End of clause)

F.2 PERIOD OF PERFORMANCE. The performance period of this contract is from the start date in Notice to Proceed and continuing for 12 months, with four options years to renew. The initial period of performance includes any transition period authorized under the contract.

F.3. DELIVERABLES

The contractor shall deliver the following items:

<u>Description</u>	<u>Quantity</u>	<u>Delivery Date</u>	<u>Deliver To:</u>
H.12.2 – Biographies of Personnel	1	5 days after award	COR
H.3 – Bonds	1	30 days after award	CO
H.4 – Insurance/Licenses & Permits	1	30 days after award	CO
H.10.1 – Safety Plan	1	30 days after award	COR
C.8 Monthly report detailing the information required as shown in Exhibit 3.	1	First day of the subsequent month	COR

F.4 CONTRACTOR'S SUBMISSION OF WORK SCHEDULE FOR TASK ORDERS FOR MAJOR REPAIRS

The time for submission of the schedules and General Instructions referenced in Section I, 52.236-15, "Schedules for Construction Contracts," Paragraph (a) is modified to reflect the due date for submission as five (5) calendar days after receipt of an executed contract." The contractor shall revise such schedules weekly:

- (a) to account for the actual progress of the work,
- (b) to reflect approved adjustments in the performance schedule, and
- (c) as required by the Contracting Officer to achieve coordination with work by the Government and any separate contractors employed by the Government.

The contractor shall submit a schedule that sequences work to minimize disruption at the job site.

All deliverables shall be in the English language and any system of dimensions (such as English or metric) shown shall be consistent with the contract. If the contractor has failed to act promptly and responsively in submitting its deliverables, the Government in approving such deliverables shall allow No extension of time for delay. The contractor shall identify EA deliverable as required by the contract.

F.5 ACCEPTANCE OF SCHEDULE

When the Government has accepted any time schedule, it shall be binding on the Contractor. The completion date is fixed and may be extended only by a written modification to the task order signed by the Contracting Officer. Acceptance or approval of any schedule or revision thereof by the Government shall Not:

- (a) extend the completion date or obligate the Government to do so,
- (b) constitute acceptance or approval of any delay, Nor

(c) excuse the contractor from or relieve the contractor of its obligation to maintain the progress of the work and achieve final completion by the established completion date.

F.6 NOTICE OF DELAY

The contractor shall Notify the Government if the contractor shall receive a Notice of any change in the work, or if any other conditions arise that may cause or are actually causing delays and the contractor believes may result in completion of the project after the completion date. The Notification shall state the effect, if any, of such change or other conditions upon the approved schedule, and shall state in what respects, if any, the relevant schedule or the completion date should be revised. The contractor shall give such Notice promptly, Not more than ten (10) days following the first occurrence of event giving rise to the delay or prospective delay. The contractor shall obtain the approval of the Contracting Officer for any revisions to the approved time schedule.

F.7 NOTICE TO PROCEED

(a) Following receipt from the contractor of acceptable bonds or evidence of insurance within the time specified in Section H of this contract, the Contracting Officer will provide to the contractor a Notice to Proceed. The contractor shall then begin work.

(b) It is possible that the Contracting Officer may elect to issue the Notice to Proceed before receipt and acceptance of any bonds or evidence of insurance. Issuance of a Notice to Proceed by the Government before receipt of the required bonds or insurance certificates or policies shall not be a waiver of the requirement to furnish these documents.

F.8 WORKING HOURS

The contractor shall perform all work during 8.30am to 5.00 p.m. except for the holidays identified in Sections I.15. The Contracting Officer may approve other hours. The contractor shall give 24 hours advance Notice to the Contracting Officer, who may consider any deviation from the hours identified above. Changes in work hours will Not be a cause for a price increase if initiated by the Contractor.

F.9 EXCUSABLE DELAYS

The contractor shall be allowed time, Not money, for excusable delays as defined in FAR 52.249-10, Default. Examples of such cases include:

- (1) acts of God or of the public enemy,

- (2) acts of the United States Government in either its sovereign or contractual capacity,
- (3) acts of the government of the host country in its sovereign capacity,
- (4) acts of another contractor in the performance of a contract with the Government,
- (5) fires,
- (6) floods,
- (7) epidemics,
- (8) quarantine restrictions,
- (9) strikes,
- (10) freight embargoes,
- (11) delays in delivery of Government furnished equipment and
- (12) unusually severe weather.

In EA instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor, and the failure to perform furthermore

- (a) must be one that the contractor could Not have reasonably anticipated and taken adequate measures to protect against,
- (b) cannot be overcome by reasonable efforts to reschedule the work, and
- (c) directly and materially affects the date of final completion of the project.

F.10 POST AWARD CONFERENCE

The Government will hold a post award conference five (5) days after contract award at US Embassy, Nairobi offices to discuss the location and type of residences to be serviced, submittals, personnel issues, procedures and other important matters concerning the contract.

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 652.242-70 CONTRACTING OFFICER'S REPRESENTATIVE (COR) (AUG 1999)

(a) The Contracting Officer may designate in writing one or more Government employees, by name or position title, to take action for the Contracting Officer under this contract. EA designee shall be identified as a Contracting Officer's Representative (COR). Such designation(s) shall specify the scope and limitations of the authority so delegated; provided, that the designee shall Not change the terms or conditions of the contract, unless the COR is a warranted Contracting Officer and this authority is delegated in the designation.

(b) The COR for this contract is the Facilities Manager.

G.1.2 DUTIES

The COR is responsible for inspection and acceptance of services. These duties include review of contractor invoices, including the supporting documentation required by the contract. The COR may provide technical advice, substantive guidance, inspections, invoice approval, and other purposes as deemed necessary under the contract.

G.2 PAYMENT

The contractor shall submit invoices in an original and one (1) copy to the Financial Management Office at the following address:

U.S. Embassy Nairobi, Kenya
Financial Management Center
Nairobi, Kenya

G.2.1 GENERAL

The contractor shall follow Section I, 52.232-5, "Payments Under Fixed-Price Construction Contracts." The following subsections elaborate upon the information contained in that clause.

G.2.2 DETAIL OF PAYMENT REQUESTS

The Contractor's requests for payment, which shall be made No more frequently than monthly shall cover the value of labor and materials completed and in place, including a prorated portion of overhead and profit.

G.2.3 PAYMENTS TO SUBCONTRACTORS

The contractor shall make timely payment from the proceeds of the progress or final payment to subcontractors and suppliers following the Contractor's contractual arrangements with them.

G.2.4 EVALUATION BY THE CONTRACTING OFFICER

The Contracting Officer shall make a determination as to the amount that is due after an inspection of the work. The Contracting Officer shall advise the contractor if the Contracting Officer does Not approve payment of the full amount applied for, less the retainage addressed in FAR 52.232-5.

G.2.5 ADDITIONAL WITHHOLDING

Independently of monies retained by the Government under FAR 52.232-5 the Government may withhold from payments due the contractor any amounts necessary to cover:

- (a) Wages or other amounts due the Contractor's employees on this project;
- (b) Wages or other amounts due employees of subcontractors on this project;
- (c) Amounts due suppliers of materials or equipment for this project; and
- (d) Any other amounts that the contractor may be held liable under this contract, including but not limited to the actual or prospective costs of correction of defective work and costs for failure to make adequate progress.

G.2.6. PAYMENT

In accordance with 52.232-27(a), the 14-day period identified in FAR 52.232-27(a) (1)(i)(A) is changed to 30 days.

G.3 RECORDKEEPING REQUIREMENTS

The contractor and the COR shall both maintain a complete and accurate management file. The file shall contain, as a minimum, the following items:

- (a) The Government's copies of all task orders issued under this contract, and all inspection reports completed by the COR (OF-127). These forms will be supplied to advise the contractor of service requests and to document the performance of all work.

(b) Contractor's Service Report forms, documenting arrival and departure time of the contractor's representative performing the service, and all information on parts installed for major repairs only.

(c) Documentation of any complaints from post personnel or unusual incidents that may have taken place during the visit to the site.

G.4 The contractor shall not show Value Added Tax (VAT) as a separate item on invoices submitted for payment because the U.S. Embassy has a tax exemption certificate from the host government.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 ISSUANCE OF ORAL TASK ORDERS

The Contracting Officer may issue oral task orders, as stated in Section B.4.1. Any oral task orders issued shall be confirmed in writing within three days when the Mission is open for business. U.S. or local holidays observed by the Mission and natural disasters or other emergencies that result in a suspension of Normal operations shall not be counted against the three-day period. In all cases, the contractor shall begin work after receipt of an oral order, without waiting for written confirmation.

H.2 ORDERING OFFICIAL

The designated ordering individual for this contract is the Contracting Officer.

H.3 BOND REQUIREMENTS

H.3.1 TYPE OF BONDS

The contractor shall furnish to the Contracting Officer in 30 days after award:

(1) a performance and guaranty bond and a payment bond on forms provided by and from sureties acceptable to the Government, EA in the amount of 20% of the contract price, or

(2) Comparable alternate performance security approved by the Government such as a letter of credit shown in Section J.

H.3.2 TIME FOR SUBMISSION

The contractor shall provide the bonds required by Paragraph H.1.1 within ten (10) days after contract award. Failure to submit:

(1) the required bonds other security acceptable to the Government;

(2) bonds from an acceptable surety; or

(3) bonds in the required amount, may result in rescinding or termination of the contract by the Government.

The contractor shall be liable for costs described in FAR 52.249-10, "Default (Fixed-Price Construction) if the contract is terminated.

H.3.3 COVERAGE

The bonds or alternate performance security shall guarantee:

- (a) the Contractor's completion of the work within the contract time,
- (b) the correction of any defects after completion as required by this contract,
- (c) the payment of all wages and other amounts payable by the contractor shall under its subcontracts or for labor and materials, and
- (d) the satisfaction or removal of any liens or encumbrances placed on the work.

H.3.4 DURATION OF COVERAGE

The required performance and payment securities shall remain in effect in the full amount required until final acceptance of the project by the Government. At that time, the penal sum of the performance security only shall be reduced to 10% of the contract price. The performance security shall remain in effect for one year after the date of final completion and acceptance, and the contractor shall pay any premium required for the entire period of coverage. The requirement for payment security terminates at final acceptance.

H.3.5 52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if –

- (a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government;
- (b) Any surety fails to furnish reports on its financial condition as required by the Government; or
- (c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or
- (d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an

ILC's scheduled expiration, the Contracting Officer has the right to immediately draw on the ILC.

H.4 INSURANCE

H.4.1 AMOUNT OF INSURANCE

The contractor is required to provide to the Contracting Officer in 30 days after award, whatever insurance is legally necessary under Section I, 52.228-5, "Insurance - Work on a Government Installation." The contractor shall, at its own expense, provide and maintain during the entire performance period the following insurance amounts:

General Liability (includes premises/operations, collapse hazard, products, completed operations, contractual, independent contractors, broad form property damage, personal injury)

General Liability	
(1) Bodily injury on or off the site in U.S. dollars:	
Per Occurrence	\$100,000.00
Cumulative	\$200,000.00
(2) Property damage on or off the site in U.S. dollars:	
Per Occurrence	\$20,000.00
Cumulative	\$50,000.00

The types and amounts of insurance are the minimums required. The contractor shall obtain any other types of insurance required by local law or that are ordinarily or customarily obtained in the location of the work. The limit of such insurance shall be as provided by law or sufficient to meet Normal and customary claims.

The contractor agrees that the Government shall Not be responsible for personal injuries or for damages to:

- (a) any property of the Contractor,
- (b) its officers,
- (c) agents,
- (d) servants,
- (e) employees, or
- (f) any other person, arising from an incident to the Contractor's performance of this contract.

The contractor shall hold harmless and indemnify the Government from any and all claims arising, except in the instance of gross negligence on the part of the Government.

The contractor shall obtain adequate insurance for damage to, or theft of, materials and equipment in insurance coverage for loose transit to the site or in storage on or off the site.

H.4.2 GOVERNMENT AS ADDITIONAL INSURED

The general liability policy required of the contractor shall name "the United States of America, acting by and through the Department of State," as an additional insured with respect to operations performed under this contract.

H.4.3 TIME FOR SUBMISSION OF EVIDENCE OF INSURANCE

The contractor shall provide evidence of the insurance within ten (10) days after contract award. Failure to timely submit this evidence, in a form acceptable to the Contracting Officer, may result in rescinding or termination of the contract by the Government.

H.5 GOVERNING LAW

The laws of the United States shall govern the contract and the interpretation of the contract.

H.6 LANGUAGE PROFICIENCY

The manager, assigned by the contractor shall superintend the work on-site required by 52.236-6, "Superintendence by the Contractor" shall be fluent in written and spoken English.

H.7 LAWS AND REGULATIONS

H.7.1 COMPLIANCE REQUIRED

The contractor shall, without additional expense to the Government, be responsible for complying with all host country laws, codes, ordinances, and regulations applicable to the performance of the work, and with the lawful orders of any governmental authority having jurisdiction. Host country authorities may not enter the construction site without the permission of the Contracting Officer. Unless directed by the Contracting Officer, the contractor shall comply with the more stringent of:

- (a) the requirements of such laws, regulations and orders; or
- (b) the contract.

If a conflict between the contract and such laws, regulations and orders, the contractor shall promptly advise the Contracting Officer of the conflict and recommend a proposed course of action for resolution by the Contracting Officer.

H.7.2 LABOR, HEALTH AND SAFETY LAWS AND CUSTOMS

The contractor shall comply with all local labor laws, regulations, customs and practices pertaining to labor, safety, and similar matters, unless doing so would be inconsistent with the requirements of this contract.

H.7.3 SUBCONTRACTORS

The contractor shall give written assurance to the Contracting Officer that all subcontractors and others performing work on or for the project have obtained all required licenses and permits.

H.7.4 EVIDENCE OF COMPLIANCE

The contractor shall submit proper documentation and evidence of compliance with this clause to the Contracting Officer.

H.8 RESPONSIBILITY OF CONTRACTOR

H.8.1 DAMAGE TO PERSONS OR PROPERTY

The contractor shall be responsible for all damages to persons or property that occurs as a result of the Contractor's fault or negligence. The contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others.

H.8.2 RESPONSIBILITY FOR WORK PERFORMED

The contractor shall be responsible for all materials delivered and work performed until final completion and acceptance of the entire work, except for any completed unit of work that may have been accepted in writing under the contract.

H.9 MAINTENANCE OPERATIONS

H.9.1 OPERATIONS AND STORAGE AREAS

(a) Confinement to Authorized Areas. The contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer.

(b) Vehicular Access. The contractor shall use only established site entrances and roadways.

H.9.2 USE OF PREMISES

(a) Occupied Premises. If the premises are occupied, the Contractor, its subcontractors, and their employees shall comply with the regulations promulgated by the Government governing access to, operation of, and conduct while in or on the premises. The contractor shall perform the work required under this contract without unreasonably interrupting or interfering with the conduct of Government business.

(b) Requests from Occupants. The contractor shall refer to the Contracting Officer any request received by the contractor from occupants of existing buildings to change the sequence of work.

(c) Access Limited. The Contractor, its subcontractors and their employees shall Not have access to or be admitted into any building or portion of the site outside the areas designated in this contract except with the permission of the Contracting Officer.

H.10 SAFETY

H.10.1 652.236-70 ACCIDENT PREVENTION (APR 2004)

(a) *General*. The contractor shall provide and maintain work environments and procedures which will safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to contractor operations and activities; avoid interruptions of Government operations and delays in project completion dates; and, control costs in the performance of this contract. For these purposes, the contractor shall:

- (1) Provide appropriate safety barricades, signs and signal lights;
- (2) Comply with the standards issued by any local government authority having jurisdiction over occupational health and safety issues; and,
- (3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for this purpose are taken.
- (4) For overseas construction projects, the Contracting Officer shall specify in writing additional requirements regarding safety if the work involves:
 - (i) Scaffolding;
 - (ii) Work at heights above two (2) meters;

(iii) Trenching or other excavation greater than one (1) meter in depth;

(iv) Earth moving equipment;

(v) Temporary wiring, use of portable electric tools, or other recognized electrical hazards. Temporary wiring and portable electric tools require the use of a ground fault circuit interrupter (GFCI) in the affected circuits; other electrical hazards may also require the use of a GFCI;

(vi) Work in confined spaces (limited exits, potential for oxygen less than 19.5 percent or combustible atmosphere, potential for solid or liquid engulfment, or other hazards considered to be immediately dangerous to life or health such as water tanks, transformer vaults, sewers, cisterns, etc.);

(vii) Hazardous materials – a material with a physical or health hazard including but Not limited to, flammable, explosive, corrosive, toxic, reactive or unstable, or any operations which creates any kind of contamination inside an occupied building such as dust from demolition activities, paints, solvents, etc.; or

(viii) Hazardous Noise levels.

(b) *Records*. The contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to or theft of property, materials, supplies, or equipment. The contractor shall report this data in the manner prescribed by the Contracting Officer.

(c) *Subcontracts*. The contractor shall be responsible for its subcontractors' compliance with this clause.

(d) *Written program*. Before commencing work, the contractor shall:

(1) Submit a written plan to the COR 30 days after award for implementing this clause. The plan shall include specific management or technical procedures for effectively controlling hazards associated with the project; and,

(2) Meet with the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

(e) *Notification*. The Contracting Officer shall Notify the contractor of any Non-compliance with these requirements and the corrective actions required. This Notice, when delivered to the contractor or the contractor's representative on site, shall be deemed sufficient Notice of the Non-compliance and corrective action required. After receiving the Notice, the contractor shall immediately take corrective action. If the

contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order suspending all or part of the work until satisfactory corrective action has been taken. The contractor shall Not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any suspension of work order issued under this clause.

H.11 SUBCONTRACTORS AND SUPPLIERS

H.11.1 CLAIMS AND ENCUMBRANCES

The contractor shall satisfy all lawful claims of any persons or entities employed by the Contractor, including:

- (a) subcontractors,
- (b) material men and laborers, for all labor performed and materials furnished under this contract, including the applicable warranty or correction period.

The contractor shall Not at any time permit any lien, attachment, or other encumbrance to be entered against or to remain on the building(s) or the premises as a result of Nonperformance of any part of this contract.

H.11.2 APPROVAL OF SUBCONTRACTORS

(a) Review and Approval. The Government reserves the right to review proposed subcontractors for a period of five (5) days before providing Notice of approval or rejection.

(b) Rejection of Subcontractors. The Government reserves the right to reject any or all subcontractors proposed if their participation in the project may cause damage to the national security interests of the United States. The contractor shall agree to promptly replace any subcontractor rejected by the Government under this clause.

H.12 CONTRACTOR PERSONNEL

H.12.1 REMOVAL OF PERSONNEL

The contractor shall:

- (a) maintain discipline at the site and at all times;
- (b) take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst those employed at the site; and

(c) take all reasonable precautions for the preservation of peace and protection of persons and property in the neighborhood of the project against unlawful, riotous, or disorderly conduct.

The Contracting Officer may require, in writing that the contractor removes from the work any employee that the Contracting Officer determines:

- (a) incompetent,
- (b) careless,
- (c) insubordinate or
- (d) otherwise objectionable, or

(e) whose continued employment on the project is deemed by the Contracting Officer to be contrary to the Government's interests.

H.12.2 MAINTENANCE PERSONNEL SECURITY

After the contract is awarded, the contractor shall have five (5) calendar days to submit a certificate of good contact to the COR for EA worker and supervisor assigned to this project. This will allow the Government to conduct back ground and security checks. For EA individual the list shall include:

- (a) Full Name
- (b) Place and Date of Birth
- (c) Current Address
- (d) Identification number

Failure to provide any of the above information may be considered grounds for rejection and/or re-submittal of the application. Once the Government has completed the security screening and approved the applicants a badge will be provided to the individual for access to the site. The Government may revoke this badge at any time due to the falsification of data, or misconduct on site.

H.13 MATERIALS AND EQUIPMENT

H.13.1 SELECTION AND APPROVAL OF MATERIALS

(a) Standard of Quality. All materials and equipment incorporated into the work shall be new and for the purpose intended, unless otherwise specified. All workmanship shall be of good quality and performed in a skillful manner as determined by the Contracting Officer.

(b) Selection by Contractor. Where the contract permits the contractor to select products, materials or equipment to be incorporated into the work, or where specific approval is otherwise required by the contract, the contractor shall give the Contracting Officer, for approval:

- (1) The names of the manufacturer;
- (2) Model number;
- (3) Source of procurement of EA such product, material or equipment; and
- (4) Other pertinent information concerning the:

- (i) Nature,
- (ii) Appearance,
- (iii) Dimensions,
- (iv) Performance,
- (v) Capacity, and
- (vi) Rating

unless otherwise required by the Contracting Officer.

The contractor shall provide this information in a timely manner to permit the Government to evaluate the information against the requirements of the contract. The contractor shall provide a submittal register ten (10) days after contract award showing when shop drawings, samples, or submittals shall be made. The contractor shall submit samples for approval at the contractor's expense, with all shipping charges prepaid, when directed to do so by the Contracting Officer or COR. Installation or use of any products, materials or equipment without the required approval shall be at the risk of rejection.

H.13.2 CUSTODY OF MATERIALS

The contractor shall be responsible for the custody of all materials received for incorporation into the project, including Government furnished materials, upon delivery to the contractor or to any person for whom it is responsible, including subcontractors. The contractor shall deliver all items to the site as soon as practicable. The contractor shall clearly mark in a manner directed by the Contracting Officer all items of which the contractor has custody but that have Not been delivered or secured at the site. The contractor shall clearly indicate the use of such items for this U.S. Government project.

H.14 SURPLUS MATERIALS

Any surplus materials, fixtures, articles or equipment remaining at the completion of the project shall become the property of the Contractor, except those items furnished by the Government, whose cost is Not included in the contract price.

H.15 SPECIAL WARRANTIES

H.15.1 SPECIAL WARRANTY OBLIGATIONS

Any special warranties that may be required under the contract shall be subject to the terms of FAR 52.246-21, "Warranty of Construction," unless they conflict with the terms of such special warranties.

H.15.2 WARRANTY INFORMATION

The contractor shall obtain and furnish to the Government all information that is required to make any subcontractor's, manufacturers, or supplier's guarantee or warranty legally binding and effective. The contractor shall submit both the information and the guarantee or warranty to the Government in sufficient time to permit the Government to meet any time limit specified in the guarantee or warranty, but Not later than completion and acceptance of all work under this contract.

H.16 NONCOMPLIANCE WITH CONTRACT REQUIREMENTS

The Contracting Officer shall have the right to order the contractor to suspend any or all work under the contract until the contractor has complied or begun complying with the Noncompliance Notice in a reasonable period of time. The contractor shall not be entitled to any extension of contract time or payment for any costs incurred as a result of being ordered to suspend work for such a cause. See FAR 52.242-14, Suspension of Work.

SECTION I - CONTRACT CLAUSES

I.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at: <http://acquisition.gov/far/index.html> or <http://farsite.hill.af.mil/vffara.htm>. Please Note these addresses are subject to change.

If the Federal Acquisition Regulation (FAR) is Not available at the locations indicated above, use the Department of State Acquisition website at <http://www.statebuy.state.gov/> to access the links to the FAR. You may also use an Internet “search engine” (for example, Google, Yahoo or Excite) to obtain the latest location of the most current FAR.

The following Federal Acquisition Regulation clauses are incorporated by reference:

<u>CLAUSE</u>	<u>TITLE AND DATE</u>
52.202-1	DEFINITIONS (NOV 2013)
52.203-3	GRATUITIES (APR 1984)
52.203-5	COVENANT AGAINST CONTINGENT FEES (MAY 2014)
52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (SEPT 2006)
52.203-7	ANTI-KICKBACK PROCEDURES (MAY 2014)
52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (OCT 2010)
52.203-17	CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (APR 2014)

- 52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER (MAY 2011)
- 52.204-9 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (JAN 2011)
- 52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (OCT 2015)
- 52.204-18 COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE (JUL 2015)
- 52.204-19 INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS (DEC 2014)
- 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED OR PROPOSED FOR DEBARMENT (OCT 2015)
- 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (JULY 2013)
- 52.215-2 AUDIT AND RECORDS – NEGOTIATION (OCT 2010)
- 52.215-8 ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT (OCT 1997)
- 52.215-11 PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA – MODIFICATIONS (AUG 2011)
- 52.215-13 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA – MODIFICATIONS (OCT 2010)
- 52.215-21 REQUIREMENTS FOR CERTIFIED COST OR PRICING DATA AND DATA OTHER THAN CERTIFIED COST OR PRICING DATA-MODIFICATIONS (OCT 2010)
- 52.216-7 ALLOWABLE COST AND PAYMENT (JUN 2013) Alternate I (FEB 1997)
- 52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)
- 52.222-19 CHILD LABOR – COOPERATION WITH AUTHORITIES AND REMEDIES (FEB 2016)

- 52.222-50 COMBATING TRAFFICKING IN PERSONS (MAR 2015)
- 52.223-18 ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING (AUG 2011)
- 52.225-5 TRADE AGREEMENTS (FEB 2016)
- 52.225-13 RESTRICTIONS ON CERTAIN FOREIGNPURCHASES (JUN 2008)
- 52.225-14 INCONSISTENCY BETWEEN ENGLISH VERSION AND TRANSLATION OF CONTRACT (FEB 2000)
- 52.225-19 CONTRACTOR PERSONNEL IN A DESIGNATED OPERATIONAL AREA OR SUPPORTING A DIPLOMATIC OR CONSULAR MISSION OUTSIDE THE UNITED STATES (MAR 2008)
- 52.228-4 WORKERS' COMPENSATION AND WAR-HAZARD INSURANCE OVERSEAS (APR 1984)
- 52.228-5 INSURANCE-WORK ON A GOVERNMENT INSTALLATION (JAN 1997)
- 52.228-11 PLEDGES OF ASSETS (JAN 2012)
- 52.228-13 ALTERNATIVE PAYMENT PROTECTION (JULY 2000)
- 52.228-14 IRREVOCABLE LETTERS OF CREDIT (NOV 2014)
- 52.229-6 TAXES - FOREIGN FIXED-PRICE CONTRACTS(FEB 2013)
- 52.232-1 PAYMENTS (APR 1984)
- 52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 2014)
- 52.232-8 DISCOUNTS FOR PROMPT PAYMENT (FEB 2002)
- 52.232-17 INTEREST (MAY 2014)
- 52.232-18 AVAILABILITY OF FUNDS (APR 1984)
- 52.232-25 PROMPT PAYMENT (JULY 2013)
- 52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACT (MAY 2014)

- 52.232-32 PERFORMANCE BASED PAYMENTS (APR 2012)
- 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER – SYSTEM FOR AWARD MANAGEMENT (JULY 2013)
- 52.233-1 DISPUTES (MAY 2014) Alternate I (DEC 1991)
- 52.233-3 PROTEST AFTER AWARD (AUG 1996)
- 52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)
- 52.236-2 DIFFERING SITE CONDITIONS (APR 1984)
- 52.236-3 SITE INVESTIGATIONS AND CONDITIONS AFFECTING THE WORK (APR 1984)
- 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)
- 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR SHALL (APR 1984)
- 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)
- 52.236-8 OTHER CONTRACTS (APR 1984)
- 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)
- 52.236-10 OPERATIONS AND STORAGE (APR 1984)
- 52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)
- 52.236-12 CLEANING UP (APR 1984)
- 52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)
- 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)
- 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)
- 52.237-3 CONTINUITY OF SERVICES (JAN 1991)
- 52.242-13 BANKRUPTCY (JULY 1995)

- 52.243-1 CHANGES - FIXED-PRICE (AUG 1987) Alternate II (APR 1984)
- 52.244-6 SUBCONTRACTOR AND COMMERCIAL ITEMS (FEB 2016)
- 52.245-1 GOVERNMENT PROPERTY (APR 2012)
- 52.245-2 GOVERNMENT PROPERTY INSTALLATION OPERATION SERVICES (APR 2012)
- 52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)
- 52.248-1 VALUE ENGINEERING (OCT 2010)
- 52.249-4 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (SERVICES) (SHORT FORM) (APR 1984)
- 52.249-8 DEFAULT (FIXED-PRICE SUPPLY AND SERVICE) (APR 1984)
- 52.249-14 EXCUSABLE DELAYS (APR 1984)
- 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

I.2. FEDERAL ACQUISITION REGULATION CLAUSES PROVIDED IN FULL TEXT

The following FAR clauses are provided in full text:

- 52.203-08 CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423 (The Act)), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Public Law 104-106), the Government may-

- (1) Cancel the solicitation, if the contract has Not yet been awarded or issued; or
- (2) Rescind the contract with respect to which-
 - (i) The contractor or someone acting for the contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either-

- (A) Exchanging the information covered by such subsections for anything of value; or
- (B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the contractor or someone acting for the contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are Not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

I.3 52.216-18 ORDERING (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from date of award through base period or option periods if exercised.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

(End of clause)

I.4 52.216-19 ORDER LIMITATIONS (OCT 1995)

(a) Minimum Order. When the Government requires supplies or services covered by this contract in an amount of less than US\$1000.00, the Government is Not obligated to purchase, Nor is the contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum Order. The contractor is not obligated to honor--

(1) Any order for a single item in excess of US\$10,000.00

(2) Any order for a combination of items in excess of US\$30,000.00 or

(3) A series of orders from the same ordering office within five (5) days that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

(c) If this is a requirements contract (i.e., includes the Requirement clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is Not required to order a part of any one requirement from the contractor if that requirement exceeds the maximum-order limitations in paragraph (b) above.

(d) Notwithstanding paragraphs (b) and (c) above, the contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within five (5) days after issuance, with written Notice stating the contractor's intent Not to ship the item (or items) called for and the reasons. Upon receiving this Notice, the Government may acquire the supplies or services from another source.

(End of clause)

I.5. 52.216-22 INDEFINITE QUANTITY (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are Not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Deliver-Order Limitations clause or in the Schedule, there is No limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) The Contractor shall Not be required to perform any services under this contract thirty (30) days beyond the contract's effective period.

(End of clause)

I.6 52.217-8 OPTION TO EXTEND SERVICES (NOV 1999)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. The option provision may be exercised more

than once, but the total extension of performance hereunder shall Not exceed 6 months. Contracting Officer may exercise the option by written Notice to the contractor within the performance period of the contract.

(End of clause)

I.7 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

(a) The Government may extend the term of this contract by written Notice to the contractor within the performance period of the contract or within 30 days after funds for the option year become available, whichever is later.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall Not exceed 60 months (5 years).

(End of clause)

I.8 RESERVED

I.9 52.228-15 PERFORMANCE AND PAYMENT BONDS - CONSTRUCTION (OCT 2010)

(a) As used in this clause-Contract-
“Original contract price” means the award price of the contract; or, for requirements contracts, the price payable for the estimated quantity; or, for indefinite-delivery type contracts, and the price payable for the specified minimum quantity. Original contract price does Not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is \$150,000 or less, the successful offeror shall be required to furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance Bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 20 percent of the original contract price.

(2) Payment Bonds (Standard Form 25A) the penal amount of payment bonds shall be 20 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 20% of the increased in contract price.

(i) The Government may secure the additional protection by directing the contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the

time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, in any event, before starting work.

(d) *Surety or other security for bonds.* The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or bonds or Notes of the United States. Treasury Circular 570 is published in the Federal Register or Department of Treasury, Financial Management Service, Surety Bond Branch, 3700 East West Highway, Room 6F01, Hyattsville, MD 20782. Or via the internet at <http://www.fms.treas.gov/c570/c570.html>.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 3133(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has furnished labor or material for use in the performance of the contract.

(End of clause)

I.10 52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR.
(APR 1984)

Funds are Not presently available for performance under this contract beyond September 30 of the current calendar year. The Government's obligation for performance of this contract beyond that date is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise for performance under this contract beyond September 30 of the current calendar year, until funds are made available to the Contracting Officer for performance and until the contractor receives Notice of availability, to be confirmed in writing by the Contracting Officer.

(End of clause)

DEPARTMENT OF STATE ACQUISITION REGULATION (DOSAR) CLAUSES

I.11 652.204-70 DEPARTMENT OF STATE PERSONAL IDENTIFICATION
CARD ISSUANCE PROCEDURES (MAY 2011)

(a) The contractor shall comply with the Department of State (DOS) Personal Identification Card Issuance Procedures for all employees performing under this contract who require frequent and continuing access to DOS facilities, or information systems. The contractor shall insert this clause in all subcontracts when the subcontractor's employees will require frequent and continuing access to DOS facilities, or information systems.

(b) The DOS Personal Identification Card Issuance Procedures may be accessed at <http://www.state.gov/m/ds/rls/rpt/c21664.htm> .

(End of clause)

I.12 652.243-70 NOTICES (AUG 1999)

Any Notice or request relating to this contract given by either party to the other shall be in writing. Said Notice or request shall be mailed or delivered by hand to the other party at the address provided in the schedule of the contract. All modifications to the contract must be made in writing by the Contracting Officer.

(End of clause)

I.13 652.242-73 AUTHORIZATION AND PERFORMANCE (AUG 1999)

(a) The contractor warrants the following:

(1) That it has obtained authorization to operate and do business in the country or countries in which this contract will be performed;

(2) That it has obtained all necessary licenses and permits required to perform this contract; and,

(3) That it shall comply fully with all laws, decrees, labor standards, and regulations of said country or countries during the performance of this contract.

(b) If the party actually performing the work will be a subcontractor or joint venture partner, then such subcontractor or joint venture partner agrees to the requirements of paragraph (a) of this clause.

(End of clause)

I.14 652.216-70 ORDERING - INDEFINITE-DELIVERY CONTRACT (APR 2004)

The Government shall use one of the following forms to issue orders under this contract:

(a) The Optional Form 347, *Order for Supplies or Services*, and Optional Form 348, *Order for Supplies or Services Schedule - Continuation*; or,

(b) The DS-2076, *Purchase Order, Receiving Report and Voucher*, and DS-2077, *Continuation Sheet*.

(End of clause)

I.15 652.237-72 OBSERVANCE OF LEGAL HOLIDAYS AND ADMINISTRATIVE LEAVE (APR 2004)

(a) The Department of State observes the following days*as holidays:

New Year's Day
Martin Luther King's Birthday
Washington's Birthday
Memorial Day
Independence Day
Labor Day
Columbus Day
Veterans Day
Thanksgiving Day
Christmas Day

*Any other day designated by Federal law, Executive Order, or Presidential Proclamation.

(b) When any such day falls on a Saturday or Sunday, the following Monday is observed. Observance of such days by Government personnel shall Not be cause for additional period of performance or entitlement to compensation except as set forth in the contract. If the Contractor's personnel work on a holiday, No form of holiday or other premium compensation will be reimbursed either as a direct or indirect cost, unless authorized pursuant to an overtime clause elsewhere in this contract.

(c) When the Department of State grants administrative leave to its Government employees, assigned contractor personnel in Government facilities shall also be dismissed. However, the contractor shall agree to continue to provide sufficient personnel to perform round-the-clock requirements of critical tasks already in operation or scheduled, and shall be guided by the instructions issued by the Contracting Officer or his/her duly authorized representative.

(d) For fixed-price contracts, if services are Not required or provided because the building is closed due to inclement weather, unanticipated holidays declared by the President, failure of Congress to appropriate funds, or similar reasons, deductions will be computed as follows:

(1) The deduction rate in dollars per day will be equal to the per month contract price divided by 21 days per month.

(2) The deduction rate in dollars per day will be multiplied by the number of days services are Not required or provided.

If services are provided for portions of days, appropriate adjustment will be made by the Contracting Officer to ensure that the contractor is compensated for services provided.

(e) If administrative leave is granted to contractor personnel as a result of conditions stipulated in any "Excusable Delays" clause of this contract, it will be without loss to the Contractor. The cost of salaries and wages to the contractor for the period of any such excused absence shall be a reimbursable item of direct cost hereunder for employees whose regular time is Normally charged, and a reimbursable item of indirect cost for employees whose time is Normally charged indirectly in accordance with the Contractor's accounting policy.

(End of clause)

I.16 652.225-71 SECTION 8(A) OF THE EXPORT ADMINISTRATION ACT OF 1979, as amended (AUG 1999)

(a) Section 8(a) of the U.S. Export Administration Act of 1979, as amended (50 U.S.C. 2407(a)), prohibits compliance by U.S. persons with any boycott fostered by a

foreign country against a country which is friendly to the United States and which is Not itself the object of any form of boycott pursuant to United States law or regulation. The Boycott of Israel by Arab League countries is such a boycott, and therefore, the following actions, if taken with intent to comply with, further, or support the Arab League Boycott of Israel, are prohibited activities under the Export Administration Act:

(1) Refusing, or requiring any U.S. person to refuse to do business with or in Israel, with any Israeli business concern, or with any national or resident of Israel, or with any other person, pursuant to an agreement of, or a request from or on behalf of a boycotting country;

(2) Refusing, or requiring any U.S. person to refuse to employ or otherwise discriminating against any person on the basis of race, religion, sex, or national origin of that person or of any owner, officer, director, or employee of such person;

(3) Furnishing information with respect to the race, religion, or national origin of any U.S. person or of any owner, officer, director, or employee of such U.S. person;

(4) Furnishing information about whether any person has, has had, or proposes to have any business relationship (including a relationship by way of sale, purchase, legal or commercial representation, shipping or other transport, insurance, investment, or supply) with or in the State of Israel, with any business concern organized

(5) under the laws of the State of Israel, with any Israeli national or resident, or with any person which is known or believed to be restricted from having any business relationship with or in Israel;

(6) Furnishing information about whether any person is a member of, has made contributions to, or is otherwise associated with or involved in the activities of any charitable or fraternal organization which supports the State of Israel; and,

(7) Paying, honoring, confirming, or otherwise implementing a letter of credit which contains any condition or requirement against doing business with the State of Israel.

(b) Under Section 8(a), the following types of activities are Not forbidden ``compliance with the boycott," and are therefore exempted from Section 8(a)'s prohibitions listed in paragraphs (a)(1)-(6) above:

(1) Complying or agreeing to comply with requirements:

(i) Prohibiting the import of goods or services from Israel or goods produced or services provided by any business concern organized under the laws of Israel or by nationals or residents of Israel; or,

(ii) Prohibiting the shipment of goods to Israel on a carrier of Israel, or by a route other than that prescribed by the boycotting country or the recipient of the shipment;

(2) Complying or agreeing to comply with import and shipping document requirements with respect to the country of origin, the name of the carrier and route of shipment, the name of the supplier of the shipment or the name of the provider of other services, except that No information knowingly furnished or conveyed in response to such requirements may be stated in negative, blacklisting, or similar exclusionary terms, other than with respect to carriers or route of shipments as may be permitted by such regulations in order to comply with precautionary requirements protecting against war risks and confiscation;

(3) Complying or agreeing to comply in the Normal course of business with the unilateral and specific selection by a boycotting country, or national or resident thereof, of carriers, insurance, suppliers of services to be performed within the boycotting country or specific goods which, in the Normal course of business, are identifiable by source when imported into the boycotting country;

(4) Complying or agreeing to comply with the export requirements of the boycotting country relating to shipments or transshipments of exports to Israel, to any business concern of or organized under the laws of Israel, or to any national or resident of Israel;

(5) Compliance by an individual or agreement by an individual to comply with the immigration or passport requirements of any country with respect to such individual or any member of such individual's family or with requests for information regarding requirements of employment of such individual within the boycotting country; and,

(6) Compliance by a U.S. person resident in a foreign country or agreement by such person to comply with the laws of that country with respect to his or her activities exclusively therein, and such regulations may contain exceptions for such resident complying with the laws or regulations of that foreign country governing imports into such country of trademarked, trade named, or similarly specifically identifiable products, or components of products for his or her own use, including the performance of contractual services within that country, as may be defined by such regulations.

(End of clause)

I.17 652.229-71 PERSONAL PROPERTY DISPOSITION AT POSTS ABROAD
(AUG 1999)

(a) The contractor shall warrant the following:

(1) That is has obtained authorization to operate and do business in the country or countries in which this contract will be performed;

(2) That is has obtained all necessary licenses and permits required to perform this contract; and,

(3) That it shall comply fully with all laws, decrees, labor standards, and regulations of said country or countries during the performance of this contract.

(b) If the party actually performing the work will be a subcontractor or joint venture partner, then such subcontractor or joint venture partner agrees to the requirements of paragraph (a) of this clause.

(End of clause)

I.18 CONTRACTOR IDENTIFICATION (JULY 2008)

Contract performance may require contractor personnel to attend meetings with government personnel and the public, work within government offices, and/or utilize government e-mail.

Contractor personnel must take the following actions to identify themselves as Non-federal employees:

- 1) Use an e-mail signature block that shows name, the office being supported and company affiliation (e.g. “John Smith, Office of Human Resources, ACME Corporation Support Contractor”);
- 2) Clearly identify themselves and their contractor affiliation in meetings;
- 3) Identify their contractor affiliation in Departmental e-mail and phone listings whenever contractor personnel are included in those listings; and
- 4) Contractor personnel may Not utilize Department of State logos or indicia on business cards.

(End of clause)

RECRUITMENT OF THIRD COUNTRY NATIONALS FOR PERFORMANCE ON DEPARTMENT OF STATE CONTRACTS (October 17, 2012)

1. On contracts exceeding \$150,000 where performance will require the recruitment of Non-professional third country nationals, the offeror is required to submit a **Recruitment Plan** as part of the proposal. Contractors providing employer furnished housing are required to submit a **Housing Plan**.

2. Recruitment Plan

a. State the anticipated number of workers to be recruited, the skills they are expected to have, and the country or countries from which the Contractor intends to recruit them.

b. Explain how the Contractor intends to attract candidates and the recruitment strategy including the recruiter.

- c. Provide sample recruitment agreement in English.
 - d. State in the offer that the recruited employee will Not be charged recruitment or any similar fees. The Contractor or employer pays the recruitment fees for the worker if recruited by the Contractor or subcontractor to work specifically on Department of State jobs.
 - e. State in the offer that the Contractor's recruitment practices comply with recruiting nation and host country labor laws.
 - f. State in the offer that the Contractor has read and understands the requirements of FAR 52.222-50 Combating Trafficking in Persons.
 - g. Contractor and subcontractors shall only use bona fide licensed recruitment companies. Recruitment companies shall only use bona fide employees and Not independent agents.
 - h. Contractor will advise the Contracting Officer of any changes to the Recruitment Plan during performance.
3. The offeror will submit a **Housing Plan** if the Contractor intends to provide employer furnished housing for TCNs. The **Housing Plan** must describe the location and description of the proposed housing. Contractors must state in their offer that housing meets host country housing and safety standards and local codes or explain any variance. Contractor shall comply with any Temporary Labor Camp standards contained in this contract. In contracts without a Temporary Labor Camp standard, fifty square feet is the minimum amount of space per person without a Contracting Officer waiver. Contractor shall submit proposed changes to their Housing Plan to the Contracting Officer for approval.
4. Department of State contractor and subcontractors will treat employees with respect and dignity by taking the following actions:
- a. Contractor may Not hold employee passports and other identification documents longer than 48 hours without employee concurrence. Contractors and subcontractors are reminded of the prohibition contained in Title 18, United States Code, Section 1592, against knowingly destroying, concealing, removing, confiscating, or possessing any actual or purported passport or other immigration document to prevent or restrict the person's liberty to move or travel in order to maintain the services of that person, when the person is or has been a victim of a severe form of trafficking in persons.
 - b. Contractor shall provide employees with signed copies of the/their employment contracts, in English and the employee's native language, that define the terms of employment, compensation, job description, and benefits. Contracts must be provided prior to employee departure from their countries of origin.

c. Contractor shall provide all employees with a “Know Your Rights” brochure and document that employees have been briefed on the contents of the brochure. The English language version is available at <http://www.state.gov/j/tip/> or from the Contracting Officer.

d. Contractor shall brief employees on the requirements of the FAR 52.222-50 Combating Trafficking in Persons including the requirements against commercial sex even in countries where it is legal and shall provide a copy of the briefing to the Contracting Officer Representative (COR).

e. Contractor shall display posters in worker housing advising employees in English and the dominant language of the Third Country Nationals being housed of the requirement to report violations of Trafficking in Persons to the company and the company’s obligation to report to the Contracting Officer. The poster shall also indicate that reports can also be submitted to the Office of the Inspector General (OIG) Hotline at 202-647-3320 or 1-800-409-9926 or via email at OIGHotline@state.gov

f. Contractor and subcontractors shall comply with sending and receiving nation laws regarding transit, entry, exit, visas, and work permits. Contractors are responsible for repatriation of workers imported for contract performance.

g. Contractor will monitor subcontractor compliance at all tiers. This includes verification that subcontractors are aware of, and understand, the requirements of FAR 52.222-50 Combating Trafficking in Persons and this clause. Contractors specifically agree to allow U.S. Government personnel access to contractor and subcontractor personnel, records, and housing for audit of compliance with these requirements.

h. The Contractor agrees to include this clause in all subcontracts over \$150,000 involving recruitment of third country national for subcontractor performance.

**SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER
ATTACHMENTS**

EXHIBIT 1	LIST OF CURRENTLY HELD RESIDENTIAL PROPERTIES
EXHIBIT 2	TECHNICAL SPECIFICATIONS AND CHECKLISTS
EXHIBIT 3	SAMPLE MONTHLY REPORT FORM
EXHIBIT 4	CONTRACTOR FURNISHED PROPERTY
EXHIBIT 5	BREAKDOWN OF PROPOSAL PRICE BY DIVISION AND SPECIFICATION
EXHIBIT 6	ATTACHMENT FOR KENYA APPROVED BUILDING CODES

EXHIBIT 1 - LIST OF CURRENTLY HELD RESIDENTIAL PROPERTIES

We have 284 both US Government owned house and rented. Different sample houses will be visited during the site visit before submitting the proposals.

Rosslyn Ridge	60
Mandera Lane	1
Hillview	6
Riverside Drive	1
Thigiri Rd./Garden/Close/Lane	13
Kitisuru	2
Muthaiga Rd.	6
Shanzu Rd. Off Kyuna Rd	20
Runda Estate	65
Runda Mumwe	1
Brookside Drive	8
Spring Valley	<u>5</u>
Kyuna Rd.	<u>10</u>
Muthangari Rd	<u>2</u>
Nyari/Nyari West	<u>22</u>
Makueni Rd.	<u>5</u>
Karura Avenue	<u>10</u>
Bendera lane	<u>1</u>
Loresho	<u>3</u>
Rosslyn Villas	<u>9</u>
Kibagare	<u>5</u>
Kileleshwa	<u>1</u>
Kiambu Road	<u>20</u>
Gigiri	6
Rosslyn Ridge Club House	1
Shanzu Rd.Club House Off Kyuna Rd	1

Exhibit 2

Technical Specifications and Checklists

Painting Work

(Please refer to the technical specifications specified in Section C.2.1.)

Item	Completed	Notes

Plumbing Work

(Please refer to the technical specifications specified in Section C.2.5.)

Item	Completed	Notes

Electrical Work

(Please refer to the technical specifications specified in Section C.2.6.)

Item	Completed	Notes

Carpentry Work

(Please refer to the technical specifications specified in Section C.2.7.)

Item	Completed	Notes

Wooden Floor Work

(Please refer to the technical specifications specified in Section C.2.7.1.)

Item	Completed	Notes

Roofing Work

(Please refer to the technical specifications specified in Section C.2.8.)

Item	Completed	Notes

Masonry Work

(Please refer to the technical specifications specified in Section C.2.9.)

Item	Completed	Notes

Exhibit 3

Sample Monthly Report Form

Monthly Report for the Month of _____, U.S. Embassy Nairobi, Kenya

1. Services requested during the month:

Task Order	Location/Description	Completion Date	Status
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2. Other Notes (include task order number):

A. Problems Encountered:

B. Major Repairs Needed:

C. Major Repairs Made

D. Recommendations

Signed by _____ Date _____

Exhibit 4

Contractor Furnished Property

1) The contractor shall provide all equipment, materials, supplies, and clothing required to perform make ready services as specified in this contract. Such items are uniforms, or administrative items required for performance of the duties and requirements of this contract. The contractor must maintain sufficient maintenance supplies and spare equipment for all contractor furnished materials to ensure uninterrupted provision of services as required by the contract or, report to the Contracting Officer the reason(s) he is unable to comply.

2) Paint used shall be all lead free, latex, basic off-white, to match existing, or semi-gloss, basic off-white to match existing, or high-gloss, basic off-white to match existing. The contractor shall submit MSDS (Material Safety Data Sheet) to COR for approval prior to start this contract. The MSDS can be made available from the manufacturer.

The contractor shall use only environmentally preferable chemical cleaning-products. The contractor shall identify products by brand name for EA of the following product types:

- (a) All-purpose cleaner
- (b) General degreaser
- (c) General disinfectant
- (d) Graffiti remover
- (e) Chrome and brass cleaner/polish
- (f) Glass cleaner
- (g) Floor stripper
- (h) Floor finisher
- (i) Solvent spotter
- (j) Gum remover
- (k) Wood floor finish
- (l) Bathroom hand cleaner/soap

- (m) Bathroom disinfectant
- (n) Bathroom cleaner
- (o) Bathroom deodorizers
- (p) Urinal deodorizers
- (q) Lime and scale remover

Information on environmentally preferable products (EPP) is available on the Internet at <http://www.epa.gov/opptintr/epp.htm>.

All Non-chemical products (paper, plastic, etc.) should conform to the Environmental Protection Agency (EPA) Comprehensive Procurement Guide (CPG) if the products are CPG-designated items. CPG information is available on the Internet at <http://www.epa.gov/cpg>.

Contractors may propose more than one product within a product category and/or propose a product or products addressing more than one product category.

Once this list of products has been approved by the Contracting Officer, the contractor is responsible for using only those approved cleaning chemical products in the building. If for some reason the product is found later to be ineffective, the contractor would otherwise like to propose an alternative product, or the Contracting Officer would like to propose a more environmentally preferable product, either the contractor or Contracting Officer may propose for consideration an "equal" product. If the parties agree to the replacement product, the contract will be modified.

**Exhibit 5
Breakdown of Proposal Price by Division and Specification**

All prices shall be in Kshs

(1) DIVISION /DESCRIPTION	(2) LABOR	(3) MATERIALS	(4) OVERHEAD	(5) PROFIT	(6) TOTAL
1. General Requirements/ Mobilization					
2. Site Work					
3. Concrete					
4. Masonry					
5. Metals					
6. Wood and Plastic					
7. Thermal and Moisture					
8. Doors and Windows					
9. Finishes					
10. Specialties					
11. Equipment					
12. Furnishings					
13. Special Construction					
14. Conveying Systems					
15. Mechanical					
16. Electrical					
TOTAL					

Allowance Items:

PROPOSAL PRICE TOTAL:

Alternates (list separately do Not total)

Offeror:

Date

EXHIBIT 6 ATTACHMENT FOR KENYA APPROVED BUILDING CODES



KENYA BUILDING
CODE.pdf

**SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER
STATEMENTS OF OFFERORS**

**K.1 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION
(APR 1985)**

(a) The Offeror certifies that -

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other Offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have Not been and will Not be knowingly disclosed by the Offeror, directly or indirectly, to any other Offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the Offeror to induce any other concern to submit or Not to submit an offer for the purpose of restricting competition.

(b) EA signature on the offer is considered to be a certification by the signatory that the signatory -

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has Not participated and will Not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have Not participated, and will Not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have Not participated, and will Not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has Not personally participated, and will Not participate, in any action contrary to subparagraphs (a) (1) through (a) (3) above.

(c) If the Offeror deletes or modifies subparagraph (a) (2) above, the Offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

K.2 52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2007)

(a) Definitions. As used in this provision – “Lobbying contact” has the meaning provided at 2 USC 1602(8). The terms “agency”, “influencing or attempting to influence”, “officer or employee of an agency”, “person”, “reasonable compensation”, and “regularly employed” are defined in the FAR clause of this solicitation entitled Limitation on Payments to Influence Certain Federal Transactions (52.203-12).

(b) Prohibition. The prohibition and exceptions contained in the FAR clause of this solicitation entitled “Limitation on Payments to Influence Certain Federal Transactions” (52.203-12) are hereby incorporated by reference in this provision.

(c) Certification. The Offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress on its behalf in connection with the awarding of this contract.

(d) Disclosure. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contract on behalf of the Offeror with respect to this contract, the Offeror shall complete and submit, with its officer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The Offeror need Not report regularly employed officers or employees of the Offeror to whom payments of reasonable compensation were made.

(e) Penalty. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by 31 USC 1352. Any persons who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure required to be filed or amended by this provision, shall be subject to a civil penalty of Not less than \$10,000, and Not more than \$150,000, for EA failure.

K.3 52.204-3 TAXPAYER IDENTIFICATION (OCT 98)

(a) Definitions

"Common parent", as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the Offeror is a member.

"Taxpayer Identification Number (TIN)", as used in this provision, means the number required by the IRS to be used by the Offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision in order to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325 (d), reporting requirements of 26 USC 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service (IRS). If the resulting contract is subject to the reporting requirements described in FAR 4.904, the failure or refusal by the Offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 USC 7701(c) (3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

TIN: _____

TIN has been applied for.

TIN is Not required because:

Offeror is a Nonresident alien, foreign corporation, or foreign partnership that does Not have income effectively connected with the conduct of a trade or business in the U.S. and does Not have an office or place of business or a fiscal paying agent in the U.S.;

Offeror is an agency or instrumentality of a foreign government;

Offeror is an agency or instrumentality of the Federal Government.

(e) Type of Organization.

Sole Proprietorship;

Partnership:

Corporate Entity (Not tax exempt);

Corporate Entity (tax exempt);

Government entity (Federal, State, or local);

Foreign government;

International organization per 26 CFR 1.6049-4;

Other _____

(f) Common Parent.

Offeror is Not owned or controlled by a common parent as defined in paragraph (a) of this clause.

Name and TIN of common parent;

Name _____
TIN _____

(End of provision)

K.4 52.204-8 -- Annual Representations and Certifications. (Apr 2016)

(a)(1) The North American Industry classification System (NAICS) code for this acquisition is 238990 and 561720.

(2) The small business size standard is 238990 - \$15M and 561720 - \$18M.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did Not itself manufacture, is 500 employees.

(b) (1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at 52.204-7 is Not included in this solicitation, and the offeror is currently registered in the System for Award Management (SAM), and has completed the Representations and Certifications section of SAM electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certification in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (d) applies.

(ii) Paragraph (d) does Not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) (1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.

(iii) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do Not include the provision at 52.204-7, System for Award Management.

(iv) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are Not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(v) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations—Representation.

(vi) 52.209-5; Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(vii) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(viii) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(ix) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(x) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(xi) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(xii) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xiii) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xiv) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is Not for acquisition of commercial items.

(xv) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xvi) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA-designated items.

(xvii) 52.225-2, Buy American Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xviii) 52.225-4, Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225- 3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$77,533, the provision with its Alternate II applies.

(D) If the acquisition value is \$79,507 or more but is less than \$100,000, the provision with its Alternate III applies.

(xix) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xx) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan--Certification. This provision applies to all solicitations.

(xxi) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran—Representation and Certification. This provision applies to all solicitations.

(xxii) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type Normally acquired from higher educational institutions.

(2) The following representations or certifications are applicable as indicated by the Contracting Officer:

[Contracting Officer check as appropriate.]

___ (i) 52.204-17, Ownership or Control of Offeror.

___ (ii) 52.204-20, Predecessor of Offeror.

___ (iii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

___ (iv) 52.222-48, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Certification.

___ (v) 52.222-52 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Certification.

___ (vi) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

___ (vii) 52.227-6, Royalty Information.

___ (A) Basic.

___ (B) Alternate I.

___ (viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the SAM Web site accessed through <https://www.acquisition.gov>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [*offeror to insert changes, identifying change by clause number, title, date*]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change

Any changes provided by the offeror are applicable to this solicitation only, and do Not result in an update to the representations and certifications posted on SAM.

(End of Provision)

K.5 52.209-5 CERTIFICATION REGARDING RESPONSIBILITY MATTERS (OCT 2015)

- (a) (1) The Offeror certifies, to the best of its knowledge and belief, that --
- (i) The Offeror and/or any of its Principals --
- (A) Are [] are Not [] presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have have Not , within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) contract or subcontract; violation of Federal or State antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property (if offeror checks “have”, the offeror shall also see 52.209-7, if included in this solicitation); and
(C) Are are Not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision; and

(D) Have , have Not , within a three-year period preceding this offer, been Notified of any delinquent Federal taxes in an amount that exceeds \$3,500 for which the liability remains unsatisfied.

(1) Federal taxes are considered delinquent if both of the following criteria apply:

(i) *The tax liability is finally determined.* The liability is finally determined if it has been assessed. A liability is Not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is Not finally determined until all judicial appeal rights have been exhausted.

(ii) *The taxpayer is delinquent in making payment.* A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is Not delinquent in cases where enforced collection action is precluded.

(2) Examples.

(i) The taxpayer has received a statutory Notice of deficiency, under I.R.C. §6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is Not a delinquent tax because it is Not a final tax liability. Should the taxpayer seek Tax Court review, this will Not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(ii) The IRS has filed a Notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a Notice under I.R.C. §6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had No prior opportunity to contest the liability. This is Not a delinquent tax because it is Not a final tax liability. Should the taxpayer seek tax court review, this will Not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(iii) The taxpayer has entered into an installment agreement pursuant to I.R.C. §6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is Not delinquent because the taxpayer is Not currently required to make full payment.

(iv) The taxpayer has filed for bankruptcy protection. The taxpayer is Not delinquent because enforced collection action is stayed under 11 U.S.C. 362 (the Bankruptcy Code).

(ii) The Offeror has has Not , within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) “Principal,” for the purposes of this certification, means an officer; director; owner; partner; or a person having primary management or supervisory responsibilities within a business entity (*e.g.*, general manager; plant manager; head of a division or business segment; and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written Notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will Not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror’s responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror Nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is Not required to exceed that which is Normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

K.6 52.225-18 Place of Manufacture (Sept 2006)

(a) *Definitions.* As used in this clause—

“Manufactured end product” means any end product in Federal Supply Classes (FSC) 1000-9999, except—

- (1) FSC 5510, Lumber and Related Basic Wood Materials;
- (2) Federal Supply Group (FSG) 87, Agricultural Supplies;
- (3) FSG 88, Live Animals;
- (4) FSG 89, Food and Related Consumables;
- (5) FSC 9410, Crude Grades of Plant Materials;
- (6) FSC 9430, Miscellaneous Crude Animal Products, Inedible;
- (7) FSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
- (8) FSC 9610, Ores;

- (9) FSC 9620, Minerals, Natural and Synthetic; and
- (10) FSC 9630, Additive Metal Materials.

“Place of manufacture” means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is Not the place of manufacture.

(b) For statistical purposes only, the Offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly—

(1) In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States);
or

(2) Outside the United States

K.7 AUTHORIZED CONTRACT ADMINISTRATOR

If the Offeror does Not fill-in the blanks below, the official who signed the offer will be deemed to be the offeror's representative for contract administration, which includes all matters pertaining to payments.

Name: _____

Address: _____

Telephone Number: _____

K.8 652.225-70 ARAB LEAGUE BOYCOTT OF ISRAEL (AUG 1999)

(a) Definitions. As used in this provision:

Foreign person means any person other than a United States person as defined below.

United States person means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign

establishment) of any domestic concern which is controlled in fact by such domestic concern, as provided under the Export Administration Act of 1979, as amended.

(b) Certification. By submitting this offer, the Offeror certifies that it is Not:

(1) Taking or knowingly agreeing to take any action, with respect to the boycott of Israel by Arab League countries, which Section 8(a) of the Export Administration Act of 1979, as amended (50 U.S.C. 2407(a)) prohibits a United States person from taking; or,

(3) Discriminating in the award of subcontracts on the basis of religion.

Proposal Note: If the offeror has indicated “yes” in blocks (a)(1), (2), or (3) of the following provision, the offeror shall include Defense Base Act insurance costs covering those employees in their proposed prices. The offeror shall obtain DBA insurance directly from any Department of Labor approved providers at the DOL website at <http://www.dol.gov/owcp/dlhwc/lscarrier.htm>.

K.9 652.228-70 DEFENSE BASE ACT – COVERED CONTRACTOR EMPLOYEES (JUN 2006)

(a) Bidders/offerors shall indicate below whether or Not any of the following categories of employees will be employed on the resultant contract, and, if so, the number of such employees:

Category	Yes/No	Number
(1) United States citizens or residents		
(2) Individuals hired in the United States, regardless of citizenship		
(3) Local nationals or third country nationals where contract performance takes place in a country <i>where there are No</i> local workers’ compensation laws		Local nationals: _____ Third Country Nationals: _____
(4) Local nationals or third country nationals where contract performance takes place in a country where there <i>are</i> local workers’ compensation laws		Local nationals: _____ Third Country Nationals: _____

(b) The contracting officer has determined that for performance in the country of Republic of Kenyan.

Workers’ compensation laws exist that will cover local nationals and third country nationals.

Workers' compensation laws do Not exist that will cover local nationals and third country nationals.

(c) If the bidder/Offeror has indicated “yes” in block (a)(4) of this provision, the bidder/Offeror shall Not purchase Defense Base Act insurance for those employees. However, the bidder/Offeror shall assume liability toward the employees and their beneficiaries for war-hazard injury, death, capture, or detention, in accordance with the clause at FAR 52.228-4.

(d) If the bidder/Offeror has indicated “yes” in blocks (a)(1), (2), or (3) of this provision, the bidder/Offeror shall compute Defense Base Act insurance costs covering those employees pursuant to the terms of the contract between the Department of State and the Department's Defense Base Act insurance carrier at the rates specified in DOSAR 652.228-74, Defense Base Act Insurance Rates – Limitation. If DOSAR provision 652.228-74 is Not included in this solicitation, the bidder/Offeror shall Notify the contracting officer before the closing date so that the solicitation can be amended accordingly.

K. 10 52.225-20 Prohibition on Conducting Restricted Business Operations in Sudan—Certification (AUG 2009)

(a) *Definitions.* As used in this provision—

“Business operations” means engaging in commerce in any form, including by acquiring, developing, maintaining, owning, selling, possessing, leasing, or operating equipment, facilities, personnel, products, services, personal property, real property, or any other apparatus of business or commerce.

“Marginalized populations of Sudan” means—

(1) Adversely affected groups in regions authorized to receive assistance under section 8(c) of the Darfur Peace and Accountability Act (Pub. L. 109-344) ([50 U.S.C. 1701 Note](#)); and

(2) Marginalized areas in Northern Sudan described in section 4(9) of such Act.

“Restricted business operations” means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do Not include business operations that the person conducting the business can demonstrate—

(1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;

- (2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;
- (3) Consist of providing goods or services to marginalized populations of Sudan;
- (4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;
- (5) Consist of providing goods or services that are used only to promote health or education; or
- (6) Have been voluntarily suspended.

(b) *Certification.* By submission of its offer, the Offeror certifies that it does Not conduct any restricted business operations in Sudan.

K.11. 52.209-2 Prohibition on Contracting with Inverted Domestic Corporations—Representation (May 2011)

(a) *Definition.* “Inverted domestic corporation” and “subsidiary” have the meaning given in the clause of this contract entitled Prohibition on Contracting with Inverted Domestic Corporations ([52.209-10](#)).

(b) *Relation to Internal Revenue Code.* An inverted domestic corporation as herein defined does Not meet the definition of an inverted domestic corporation as defined by the Internal Revenue Code at [26 U.S.C. 7874](#) .

(c) *Representation.* By submission of its offer, the Offeror represents that—

- (1) It is Not an inverted domestic corporation; and
- (2) It is Not a subsidiary of an inverted domestic corporation.

(End of provision)

K.12. 52.225-25 Prohibition on Contracting with Entities Engaging in Sanctioned Activities Relating to Iran—Representation and Certification (Nov 2011)

(a) *Definitions.*

“Person”—

(1) Means—

- (i) A natural person;
 - (ii) A corporation, business association, partnership, society, trust, financial institution, insurer, underwriter, guarantor, and any other business organization, any other Nongovernmental entity, organization, or group, and any governmental entity operating as a business enterprise; and
 - (iii) Any successor to any entity described in paragraph (1)(ii) of this definition;
- and

(2) Does Not include a government or governmental entity that is Not operating as a business enterprise.

“Sensitive technology”—

(1) Means hardware, software, telecommunications equipment, or any other technology that is to be used specifically—

(i) To restrict the free flow of unbiased information in Iran; or

(ii) To disrupt, monitor, or otherwise restrict speech of the people of Iran; and

(2) Does Not include information or informational materials the export of which the President does Not have the authority to regulate or prohibit pursuant to section 203(b)(3) of the International Emergency Economic Powers Act ([50 U.S.C. 1702\(b\)\(3\)](#)).

(b) The Offeror shall e-mail questions concerning sensitive technology to the Department of State at CISADA106@state.gov.

(c) Except as provided in paragraph (d) of this provision or if a waiver has been granted in accordance with [25.703-4](#), by submission of its offer, the Offeror—

(1) Represents, to the best of its knowledge and belief, that the Offeror does Not export any sensitive technology to the government of Iran or any entities or individuals owned or controlled by, or acting on behalf or at the direction of, the government of Iran; and

(2) Certifies that the Offeror, or any person owned or controlled by the Offeror, does Not engage in any activities for which sanctions may be imposed under section 5 of the Iran Sanctions Act. These sanctioned activities are in the areas of development of the petroleum resources of Iran, production of refined petroleum products in Iran, sale and provision of refined petroleum products to Iran, and contributing to Iran's ability to acquire or develop certain weapons or technologies.

(d) *Exception for trade agreements.* The representation requirement of paragraph (c)(1) and the certification requirement of paragraph (c)(2) of this provision do Not apply if—

(1) This solicitation includes a trade agreements Notice or certification (*e.g.*, [52.225-4](#), [52.225-6](#), [52.225-12](#), [52.225-24](#), or comparable agency provision); and

(2) The Offeror has certified that all the offered products to be supplied are designated country end products or designated country construction material.

(End of provision)

The following DOSAR is provided in full text:

652.209-79 REPRESENTATION BY CORPORATION REGARDING AN UNPAID DELINQUENT TAX LIABILITY OR A FELONY CRIMINAL CONVICTION UNDER ANY FEDERAL LAW (SEPT 2014) (DEVIATION per PIB 2014-21)

(a) In accordance with section 7073 of Division K of the Consolidated Appropriations Act, 2014 (Public Law 113-76) None of the funds made available by that Act may be

used to enter into a contract with any corporation that –

(1) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency has direct knowledge of the conviction, unless the agency has considered, in accordance with its procedures, that this further action is Not necessary to protect the interests of the Government; or

(2) Has any unpaid Federal tax liability that has been assessed for which all judicial and administrative remedies have been exhausted or have lapsed, and that is Not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency has direct knowledge of the unpaid tax liability, unless the Federal agency has considered, in accordance with its procedures, that this further action is Not necessary to protect the interests of the Government.

For the purposes of section 7073, it is the Department of State’s policy that No award may be made to any corporation covered by (1) or (2) above, unless the Procurement Executive has made a written determination that suspension or debarment is Not necessary to protect the interests of the Government.

(b) Offeror represents that—

(1) It is [] is Not [] a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

(2) It is [] is Not [] a corporation that has any unpaid Federal tax liability that has been assessed for which all judicial and administrative remedies have been exhausted or have lapsed, and that is Not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

(End of provision)

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L.1 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates the following provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer.

Also, the full text of a solicitation provision may be accessed electronically at: <http://acquisition.gov/far/index.html> or <http://farsite.hill.af.mil/vffara.htm>. Please Note these addresses are subject to change.

If the Federal Acquisition Regulation (FAR) is Not available at the locations indicated above, use the Department of State Acquisition website at <http://www.statebuy.state.gov/> to access the links to the FAR or you may use an Internet “search engine” (for example, Google, Yahoo or Excite) to obtain the latest location of the most current FAR.

The following Federal Acquisition Regulation provisions are incorporated by reference (48 CFR CH. 1):

<u>PROVISION</u>	<u>TITLE AND DATE</u>
52.204-7	SYSTEM FOR AWARD MANAGEMENT (JULY 2013)
52.204-16	COMMERCIAL AND GOVERNMENT ENTITY CODE REPORTING (JUL 2015)
52.209-7	INFORMATION REGARDING RESPONSIBILITY MATTERS (JULY 2013)
52.214-34	SUBMISSION OF OFFERS IN ENGLISH LANGUAGE (APR 1991)
52.215-1	INSTRUCTIONS TO OFFERORS— COMPETITIVE ACQUISITION (JAN 2004)
52.222-56	CERTIFICATION REGARDING TRAFFICKING IN PERSONS (MAR 2015)
52.236-28	PREPARATION OF PROPOSALS - CONSTRUCTION (OCT 1997)

L.2 SOLICITATION PROVISIONS IN FULL TEXT

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of an indefinite-delivery indefinite-quantity contract resulting from this solicitation.

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from ***[Note to Contracting Officer: designate the official or location where a protest may be served on the Contracting Officer.]***

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

L.3 REVIEW OF DOCUMENTS

EA Offeror is responsible for:

- (1) Obtaining a complete set of contract drawings and specifications;
- (2) Thoroughly reviewing such documents and understanding their requirements;
- (3) Visiting the project site and becoming familiar with all working conditions, local laws and regulations; and
- (4) Determining that all materials, equipment and labor required for the work are available.

Offerors shall report any ambiguity in the solicitation, including specifications and contract drawings immediately to the Contracting Officer. Any prospective Offeror who requires a clarification, explanation or interpretation of the contract requirements shall make a request to the Contracting Officer Not less than five working days before the closing date of the solicitation. Offerors may rely ONLY on written interpretations by the Contracting Officer.

L.4 SUBMISSION OF OFFERS

L.4.1 GENERAL

This solicitation is for the performance of the construction services described in Section C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT, and the Attachments and Exhibits that are a part of this solicitation.

L.4.2 SUMMARY OF INSTRUCTIONS

EA offer must consist of the following physically separate volumes:

<u>Volume</u>	<u>Title</u>	<u>No. of Copies*</u>
1	<u>Executed Standard Form 1442, "Solicitation, Offer and Award (Construction, Alteration, or Repair)", and completed Section K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS.</u>	<u>3</u>
2	<u>Price Proposal and completed Section B - SUPPLIES OR SERVICES AND PRICES/COSTS. The price proposal shall include a completed Section J, Exhibit 5, "BREAKDOWN OF PROPOSAL PRICE BY DIVISIONS OF SPECIFICATIONS."</u>	<u>3</u>
3	<u>Business Management/Technical Proposal.</u>	<u>3</u>

Submit the complete offer to the address indicated at Block 7 of Standard Form (SF) 1442, if mailed, or the address below, if hand delivered (if this is left blank, the address is the same as that in Block 7 of SF-1442).

Offerors shall identify, explain and justify any deviations, exceptions, or conditional assumptions taken regarding any of the instructions or requirements of this solicitation.

*The total number of copies includes the original as one of the copies.

L.4.3 DETAILED INSTRUCTIONS

L.4.3.1 Volume I: Standard Form (SF) 1442 and Section K. Complete Blocks 14 through 20C of the SF-1442 and all of Section K.

L.4.3.2 Volume II: Price proposal and Section B. The price proposal shall consist of completion of Section B and Section J, Attachment 4, "BREAKDOWN OF PROPOSAL PRICE BY DIVISIONS OF SPECIFICATIONS". All applicable portions of this form shall be completed in EA relevant category (such as labor, materials, etc.).

Financial Statement – Provide a current statement of its financial condition, certified by a third party that includes:

(1) Income (profit-loss) Statement that shows profitability for the past two (2) years;

(2) Balance Sheet that shows the assets owned and the claims against those assets, or what a firm owns and what it owes; and

(3) Cash Flow Statement that shows the firm's sources and uses of cash during the most recent accounting period. This will help the Government assess a firm's ability to pay its obligations.

The Government will use this information to determine the offeror's financial responsibility and ability to perform under the contract. Failure of an Offeror to comply with a request for this information may cause the Government to determine the Offeror to be Nonresponsible.

L.4.3.3 Volume III: Business Management/Technical Proposal.

(a) Present the performance schedule in the form of a bar chart indicating when the various portions of the work will be started and completed within the required schedule. This bar chart shall be in sufficient detail to clearly show EA segregable portion of work and its planned start and completion date.

(b) The Business Management/Technical Proposal shall be in two parts, including the following information:

Proposed Work Information - Provide the following:

- (1) A list of the names, addresses and telephone numbers of the owners, partners, and principal officers of the Offeror;
- (2) The name and address of the Offeror's field superintendent for this project; and
- (3) A list of the names, addresses, and telephone numbers of subcontractors and principal materials suppliers to be used on the project, indicating what portions of the work will be performed by them.

Experience and Past Performance - List all contracts and subcontracts your company has held over the past three years for the same or similar work. Provide the following information for EA contract and subcontract:

- (1) Customer's name, address, and telephone numbers of customer's lead contract and technical personnel;
- (2) Contract number and type;
- (3) Date of the contract award place(s) of performance, and completion dates;
- (4) Contract dollar value;
- (5) Brief description of the work, including responsibilities;
- (6) Comparability to the work under this solicitation;
- (7) Brief discussion of any major technical problems and their resolution;
- (8) Method of acquisition (fully competitive, partially competitive, or Noncompetitive), and the basis for award (cost/price, technical merit, etc.);
- (9) Cost/price management history, including any cost overruns and under runs, and cost growth and changes;
- (10) Percent turnover of contract key technical personnel per year; and

(11) Any terminations (partial or complete) and the reason (convenience or default).

(12) Environmental Preference Submission, describing how the offeror will ensure the use of environmentally friendly products and materials in the performance of the contract. The offeror must list all chemical cleaning products and Non-chemical products that will be used.

L.5 52.236-27 SITE VISIT (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) An organized site visit has been scheduled for September 20, 2016 at 11:00am.

(c) Participants will meet at US Embassy, Nairobi.

L.6 PREPROPOSAL CONFERENCE

A pre-proposal conference to discuss the requirements of this solicitation will be held on at September 20, 2016 at 10:00am time at US Embassy Nairobi. Offerors are urged to submit written questions using the address provided on the solicitation cover page of this solicitation. Attendees should bring written questions to the conference as well. As time permits and after the Embassy discusses the solicitation and written questions are answered, oral questions may be taken.

L.7 652.206-70 COMPETITION ADVOCATE/OMBUDSMAN (AUG 1999) (DEVIATION)

(a) The Department of State's Competition Advocate is responsible for assisting industry in removing restrictive requirements from Department of State solicitations and removing barriers to full and open competition and use of commercial items. If such a solicitation is considered competitively restrictive or does not appear properly conducive to competition and commercial practices, potential offerors are encouraged to first contact the contracting office for the respective solicitation.

If concerns remain unresolved, contact the Department of State Competition Advocate on (703) 516-1696, by fax at (703) 875-6155, or by writing to:

Competition Advocate
U.S. Department of State
A/OPE

SA-15, Room 1060
Washington, DC 20522-1510.

(b) The Department of State's Acquisition Ombudsman has been appointed to hear concerns from potential offerors and contractors during the pre-award and post-award phases of this acquisition. The role of the ombudsman is Not to diminish the authority of the Contracting Officer, the Technical Evaluation Panel or Source Evaluation Board, or the selection official. The purpose of the ombudsman is to facilitate the communication of concerns, issues, disagreements, and recommendations of interested parties to the appropriate Government personnel, and work to resolve them. When requested, and appropriate, the ombudsman will maintain strict confidentiality as to the source of the concern. The ombudsman does Not participate in the evaluation of proposals, the source selection process, or the adjudication of formal contract disputes.

Interested parties are invited to contact the contracting activity ombudsman, [*Note to Contracting Officer: insert name*], at [*Note to Contracting Officer: insert telephone and fax numbers*]. For a U.S. Embassy or overseas post, refer to the numbers below for the Department Acquisition Ombudsman.

Concerns, issues, disagreements, and recommendations which cannot be resolved at a contracting activity level may be referred to the Department of State Acquisition Ombudsman at (703) 516-1696, by fax at (703) 875-6155, or by writing to:

Acquisition Ombudsman
U.S. Department of State
A/OPE
SA-15, Room 1060
Washington, DC 20522-1510.

(End of provision)

L.8 MAGNITUDE OF CONSTRUCTION PROJECT

It is anticipated that the range in price of this contract will be: [*Note to Contracting Officer: must complete this block, Not with the Government estimate, but with a range in U.S. dollars or local currency. See FAR 36.204 for instructions on how to construct the range.*]

L.9 FINANCIAL STATEMENT

If asked by the Contracting Officer, the offeror shall provide a current statement of its financial condition, certified by a third party that includes:

Income (profit-loss) Statement that shows profitability for the past [*Note to Contracting Officer: insert number of years*] years;

Balance Sheet that shows the assets owned and the claims against those assets, or what a firm owns and what it owes; and

Cash Flow Statement that shows the firm's sources and uses of cash during the most recent accounting period. This will help the Government assess a firm's ability to pay its obligations.

The Government will use this information to determine the offeror's financial responsibility and ability to perform under the contract. Failure of an offeror to comply with a request for this information may cause the Government to determine the offeror to be Nonresponsible.

SECTION M - EVALUATION FACTORS FOR AWARD

M.1 EVALUATION OF PROPOSALS

M.1.1 General. To be acceptable and eligible for evaluation, proposals must be prepared following Section L and must meet all the requirements in the other sections of this solicitation.

M.1.2 BASIS FOR AWARD

The Government intends to award a contract resulting from this solicitation to the lowest priced, technically acceptable Offeror who is a responsible contractor. The evaluation process will follow the procedures below:

(a) Initial Evaluation

The Government will evaluate all proposals received will be evaluated to ensure that EA proposal is complete in terms of submission of EA required volume, as specified in Section L. The Government may eliminate proposals that are missing a significant amount of the required.

(b) Technical Acceptability

After the initial evaluation, the Government will review the remaining proposals to determine technical acceptability. Technical acceptability will include a review of the Proposed Work Information described in Section L to ensure that the offeror's proposed project superintendent and subcontractors are acceptable to the Government. The Government may also contact references provided as part of the Experience and Past Performance information described in Section L to verify quality of past performance. The Government shall also review the bar chart submitted to review the sequence of work and to ensure that performance would be completed on time. The end result of this review will be a determination of technical acceptability or unacceptability.

(c) The Government will determine responsibility by analyzing whether the apparent successful Offeror complies with the requirements of FAR 9.1, including:

- (1) Adequate financial resources or the ability to obtain them;
- (2) Ability to comply with the required performance period, taking into consideration all existing commercial and governmental business commitments;
- (3) Satisfactory record of integrity and business ethics;
- (4) Necessary organization, experience, and skills or the ability to obtain them;

(5) Necessary equipment and facilities or the ability to obtain them; and

(6) Otherwise qualified and eligible to receive an award under applicable laws and regulations.

The Government reserves the right to reject proposals that are unreasonably low or high in price. Unsuccessful offerors will be Notified in accordance with FAR 15.503.

M.1.3 AWARD SELECTION

The Government will review the prices of all technically acceptable firms and the award selection will go to the lowest priced, technically acceptable, responsible Offeror. As described in FAR 52.215-1, incorporated by reference in Section L, the Government may award may base on initial offers, without discussions.

M.1.4 52.216-27 SINGLE OR MULTIPLE AWARDS (OCT 1995)

The Government may elect to award multiple delivery order contracts or task order contracts for the same or similar supplies or services to two or more sources under this solicitation.

M.2 52.217-5 EVALUATION OF OPTIONS (JUL 1990)

The Government will evaluate offers for award purposes by adding the total price for all options to the total price. Evaluation of options will Not obligate the Government to exercise the option(s).

M.3 QUANTITIES FOR EVALUATION

For the purpose of evaluation, and for No other purpose, evaluation of prices submitted will be made on the basis that the Government will require the quantities shown in Section B of this solicitation.

M.4 SEPARATE CHARGES

Separate charges, in any form, are Not solicited. For example, proposals containing any charges for failure of the Government to exercise any options will be rejected. The Government shall Not be obligated to pay any charges other than the contract price, including any exercised options.

M.5 52.225-17 EVALUATION OF FOREIGN CURRENCY OFFERS (FEB 2000)

If the Government receives offers in more than one currency, the Government will evaluate offers by converting the foreign currency to United States currency using the exchange rate used by the Embassy in effect as follows:

(a) For acquisitions conducted using sealed bidding procedures, on the date of bid opening.

(b) For acquisitions conducted using negotiation procedures—

(1) On the date specified for receipt of offers, if award is based on initial offers; otherwise

(2) On the date specified for receipt of proposal revisions.

(End of provision)