

**KERAJAAN MALAYSIA
JABATAN KERJA RAYA**

Schedule of Rates for the supply of all labour, materials, tools, plants, appliances and everything else necessary for the erection and completion of:

all in accordance with drawing Nos.:

Contract No. for the above mentioned works entered into on the..... day of year refers to this Schedule of Rates, consisting of pages which are shall be read and construed as part of the said Contract.

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**KERAJAAN MALAYSIA
JABATAN KERJA RAYA
SCHEDULE OF RATES**

1. This schedule of rates shall form part of the Contract for the erection and completion of and shall be read in conjunction with the General Specification and any addenda or appendices thereto.
2. The tenderer shall insert in the space provided against each item the percentage increase or decrease which he requires to be applied to the rates in this Schedule.
3. The percentages increase or decrease inserted by the tenderer shall be rationalised to reflect the current market prices and shall be subject to the agreement with the S.O. as to their reasonableness and subject to such agreement, shall be used as a Schedule of Rates for calculating the cost of any variation which may be ordered in accordance with the term of the contract.
4. This Schedule of Rates duly filled in (or amended) and signed must be returned together with the Tender Form.
5. All rates herein shall be held to include for waste on materials, carriage and cartage, carrying in and return of empties, hoisting, setting, fitting and fixing in position, making good and all other labours and everything else necessary (including any customs duty, etc.) for the proper completion of each item and for establishment charges and profit.
6. Rates for excavation (including excavation of drainage) are to include for keeping all excavations free from water, mud, etc. by pumping or bailing if required and planking and strutting, levelling, ramming or preparing bottoms, any double handling required and for additional excavation for planking, strutting and formwork.
7. Rates for concrete shall be held to include for forming, leaving or cutting grooves, chases, mortices, holes and making good and any sundry items of alike nature.
8. Rates for formwork shall be held to include for erection, raking and circular cutting, splayed edges, notchings, allowance for overlaps and passing at angles, battens, strutting, bolting, wedging, easing, striking and removal.
9. Rates for brickwork and blockwork shall be held to include for all rough and fair cutting, oversailing and receding courses, rough relieving and discharging arches, wedging and pinning, raking out joints for and pointing flashings, bedding plates, bedding and pointing frames, parging and coring flues, labour eaves filling, plumbing angles, forming square and rebated reveals, cut squints or bird-mouths, notches, forming, leaving or cutting chases, holes and mortices and cutting and pinning and making good and any other sundry items of alike nature.
10. Rates for each item of paving shall be held to include for all rounded angles, arrises and making good and any other sundry items of alike nature.
11. Rates for each item of skirtings, risers, channels and the like shall be held to include for all short lengths formed, cut and purpose made angles, junctions, ends, etc. and making good and any other sundry items of alike nature.
12. Rates for all carpentry, timberworks are to include for all labour to notching, halving, morticing, tenoning and wedging, scarfing, dovetailing, sinking for heads of bolts and nuts and trimming for openings.
13. Rates for each item of joinery shall be held to include for all cuttings, notchings, holes, housing ends, mitring ends and shaped ends, angles, junctions, heading joints, short lengths and any other sundry items of alike nature.
14. Rates for plastering, rendering etc. shall include for raking out joints of brickwork, blockwork and masonry or hacking concrete as key.
15. Overall rates for each item of plastering etc. shall be held to include for narrow widths and small quantities, temporary rules, joints between different types of plastering, internal angles, arrises, quirks, rounded coves and external angles not exceeding 1" radius and mitres, stops etc. on cornices, mouldings, enrichments, covers, skirtings, gutters and strings and making good any other sundry items of alike nature.

16. Rates for mild steel tubing are to include for short running lengths, sockets, backnuts, elbows and bends.
17. Rates for driving of pressure-treated timber piles shall include for the provision of all necessary mechanical plant, rig, temporary works, timber etc. transporting to site, erecting, dismantling, removal on completion and also for travelling of pile frame about the site.
18. Rates for driving of precast concrete piles and reinforced concrete lengthened piles shall include for the provision of all necessary mechanical plant, rig, temporary works, etc. and for the travelling of pile frame about the site.
19. Rates for the supply of initial pile are included with standard pile shoe.
20. Rates for "Total numbers of pile extension" is for butt weld connection.
21. Provided always, the use of this Schedule of Rates shall be limited to variations which are minor in nature. For extensive and sizeable variations involving large quantities, the S.O. shall review the relevant rates contained herein before issuing the variation order and reasonable reduction in the rates shall be agreed between the Contractor and the S.O.

PILING

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>PRESSURE TREATED TIMBER PILES</u>				
125mm x 125mm pressure treated timber piles.				
1	Total number of pile 3.00m long.	NO	318.60	
2	Total number of pile 6.00m long.	NO	637.20	
3	Total length of pile extension not exceeding 3.00m long.	M	106.20	
4	Total length of pile extension exceeding 3.00m long.	M	106.20	
5	Total driven depth.	NO	8.00	
6	Total number of pile extension	NO	40.20	
7	Cutting off top of pile to required level.	NO	3.40	
150mm x 150mm Pressure treated timber pile.				
8	Total number of pile 3.00m long.	NO	379.80	
9	Total number of pile 6.00m long.	NO	759.60	
10	Total length of pile extension not exceeding 3.00m long.	M	126.60	
11	Total length of pile extension exceeding 3.00m long.	M	126.60	
12	Total driven depth.	M	9.90	
13	Total number of pile extension	NO	41.60	
14	Cutting off top of pile to required level.	NO	4.90	
<u>PRECAST CONCRETE PILES</u>				
150mm x 150mm Pre-formed reinforced concrete Grade 30 piles as specified complete with head and shoe all as per Engineer's drawings				
15	Total number of pile 3.00m long.	NO	148.50	
16	Total number of pile 6.00m long.	NO	237.60	
17	Total length of pile extension not exceeding 3.00m.	M	51.70	
18	Total length of pile extension exceeding 3.00m.	M	39.60	

PILING (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>PRECAST CONCRETE PILES (CONT'D)</u>				
19	Total driven depth.	M	12.00	
20	Total number of pile extension.	NO	27.40	
21	Cutting off top of pile to required level prepare concrete pile head and reinforcement for capping.	NO	62.80	
200mm x 200mm Pre-formed reinforced concrete Grade 30 piles as specified complete with head and shoe all as per Engineer's drawings				
22	Total number of pile 3.00m long.	NO	255.60	
23	Total number of pile 6.00m long.	NO	356.40	
24	Total length of pile extension not exceeding 3.00m.	M	83.80	
25	Total length of pile extension exceeding 3.00m.	M	83.80	
26	Total driven depth.	M	12.00	
27	Total number of pile extension.	NO	37.00	
28	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	65.60	
250mm x 250mm Pre-formed reinforced concrete Grade 30 piles as specified complete with head and shoe all as per Engineer's drawings				
29	Total number of pile 3.00m long.	NO	397.80	
30	Total number of pile 6.00m long.	NO	582.60	
31	Total number of pile 9.00m long.	NO	826.20	
32	Total number of pile 12.00m long.	NO	972.00	
33	Total length of pile extension not exceeding 3.00m.	M	148.30	
34	Total length of pile extension exceeding 3.00m.	M	148.30	
35	Total driven depth.	M	12.00	
36	Total number of pile extension.	NO	45.30	
37	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	68.70	

PILING (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>PRECAST CONCRETE PILES...(CONT'D)</u>				
300mm x 300mm Pre-formed reinforced concrete Grade 30 piles as specified complete with head and shoe all as per Engineer's drawings				
38	Total number of pile 3.00m long.	NO	369.30	
39	Total number of pile 6.00m long.	NO	738.60	
40	Total number of pile 9.00m long.	NO	1,055.70	
41	Total number of pile 12.00m long.	NO	1,341.60	
42	Total length of pile extension not exceeding 3.00m.	M	203.00	
43	Total length of pile extension exceeding 3.00m.	M	130.90	
44	Total driven depth.	M	12.00	
45	Total number of pile extension.	NO	54.80	
46	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	72.20	
350mm x 350mm Pre-formed reinforced concrete Grade 30 piles as specified complete with head and shoe all as per Engineer's drawings				
47	Total number of pile 3.00m long.	NO	636.00	
48	Total number of pile 6.00m long.	NO	1,272.00	
49	Total number of pile 9.00m long.	NO	1,411.20	
50	Total number of pile 12.00m long.	NO	1,833.60	
51	Total length of pile extension not exceeding 3.00m.	M	238.00	
52	Total length of pile extension exceeding 3.00m.	M	178.60	
53	Total driven depth.	M	12.00	
54	Total number of pile extension.	NO	64.40	
55	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	80.20	
400mm x 400mm Pre-formed reinforced concrete Grade 30 piles as specified complete with head and shoe all as per Engineer's drawings				
56	Total number of pile 3.00m long.	NO	891.90	
57	Total number of pile 6.00m long.	NO	1,316.40	

PILING (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>PRECAST CONCRETE PILES...(CONT'D)</u>				
58	Total number of pile 9.00m long.	NO	1,939.50	
59	Total number of pile 12.00m long.	NO	2,420.40	
60	Total length of pile extension not exceeding 3.00m.	M	347.20	
61	Total length of pile extension exceeding 3.00m.	M	347.20	
62	Total driven depth.	M	12.00	
63	Total number of pile extension.	NO	72.70	
64	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	90.20	
<u>PRECAST CONCRETE SPUN PILES</u>				
250mm Diameter pre-formed prestressed reinforced concrete Grade 30 spun piles as specified complete with head and shoe all as per Engineer's drawings				
65	Total number of pile 3.00m long.	NO	202.80	
66	Total number of pile 6.00m long.	NO	405.60	
67	Total number of pile 9.00m long.	NO	608.40	
68	Total number of pile 12.00m long.	NO	811.20	
69	Total length of pile extension not exceeding 3.00m.	M	79.50	
70	Total length of pile extension exceeding 3.00m.	M	75.10	
71	Total driven depth.	M	12.00	
72	Total number of pile extension.	NO	41.70	
73	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	52.60	
300mm Diameter pre-formed prestressed reinforced concrete Grade 30 spun piles as specified complete with head and shoe all as per Engineer's drawings				
74	Total number of pile 3.00m long.	NO	265.20	
75	Total number of pile 6.00m long.	NO	530.40	
76	Total number of pile 9.00m long.	NO	795.60	
77	Total number of pile 12.00m long.	NO	1,060.80	
78	Total length of pile extension not exceeding 3.00m.	M	104.80	
79	Total length of pile extension exceeding 3.00m.	M	99.20	

PILING (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>PRECAST CONCRETE SPUN PILES...(CONT'D)</u>				
80	Total driven depth.	M	12.00	
81	Total number of pile extension.	NO	46.00	
82	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	63.10	
350mm Diameter pre-formed prestressed reinforced concrete Grade 30 spun piles as specified complete with head and shoe all as per Engineer's drawings				
83	Total number of pile 3.00m long.	NO	347.70	
84	Total number of pile 6.00m long.	NO	695.40	
85	Total number of pile 9.00m long.	NO	1,026.00	
86	Total number of pile 12.00m long.	NO	1,368.00	
87	Total length of pile extension not exceeding 3.00m.	M	131.50	
88	Total length of pile extension exceeding 3.00m.	M	124.80	
89	Total driven depth.	M	12.00	
90	Total number of pile extension.	NO	57.50	
91	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	73.60	
400mm Diameter pre-formed prestressed reinforced concrete Grade 30 spun piles as specified complete with head and shoe all as per Engineer's drawings				
92	Total number of pile 3.00m long.	NO	428.70	
93	Total number of pile 6.00m long.	NO	857.40	
94	Total number of pile 9.00m long.	NO	1,074.60	
95	Total number of pile 12.00m long.	NO	1,723.20	
96	Total length of pile extension not exceeding 3.00m.	M	186.40	
97	Total length of pile extension exceeding 3.00m.	M	161.60	
98	Total driven depth.	M	12.00	
99	Total number of pile extension.	NO	66.10	
100	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	84.00	

PILING (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>PRECAST CONCRETE SPUN PILES...(CONT'D)</u>				
450mm Diameter pre-formed prestressed reinforced concrete Grade 30 spun piles as specified complete with head and shoe all as per Engineer's drawings				
101	Total number of pile 3.00m long.	NO	505.20	
102	Total number of pile 6.00m long.	NO	1,010.40	
103	Total number of pile 9.00m long.	NO	1,503.90	
104	Total number of pile 12.00m long.	NO	1,972.80	
105	Total length of pile extension not exceeding 3.00m.	M	175.70	
106	Total length of pile extension exceeding 3.00m.	M	169.00	
107	Total driven depth.	M	12.00	
108	Total number of pile extension.	NO	72.00	
109	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping .	NO	94.50	
600mm Diameter pre-formed prestressed reinforced concrete Grade 30 spun piles as specified complete with head and shoe all as per Engineer's drawings				
110	Total number of pile 3.00m long.	NO	846.00	
111	Total number of pile 6.00m long.	NO	1,692.00	
112	Total number of pile 9.00m long.	NO	2,480.40	
113	Total number of pile 12.00m long.	NO	3,320.40	
114	Total length of pile extension not exceeding 3.00m.	M	285.20	
115	Total length of pile extension exceeding 3.00m.	M	278.70	
116	Total driven depth.	M	12.00	
117	Total number of pile extension.	NO	96.70	
118	Cutting off top of pile to required level and prepare concrete pile head and reinforcement for capping.	NO	105.60	
<u>ISOLATED BORE PILES</u>				
600mm Diameter reinforced in-situ concrete Grade 40/19mm aggregate				
119	Pre boring	M	201.30	
120	Total bored depth; maximum depth 30m.	M	291.30	
121	Total concrete length of piles	M	93.00	
122	EXTRA OVER for steel permanent casing; 20mm thick.	NO	1,294.70	

PILING (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
	<u>ISOLATED BORE PILES...(CONT'D)</u>			
123	EXTRA OVER for placing concrete by tremie pipe	M	28.90	
124	Cutting of top of pile to required level.	M	193.70	
125	10mm Diameter high yield deformed bar as straight and bend bar; vertical 27.00 mm - 30.00mm long.	KG	4.80	
126	Allow for 1 number preliminary testing on a group of 2 numbers 400mm Diameter pile.	ITEM	25,894.10	
	<u>MICRO PILES</u>			
	300mm Diameter reinforced in-situ concrete Grade 30; micro piles			
127	Bore vertical hole; maximum depth 10.00m	M	244.90	
128	EXTRA OVER for permanent casings steel tube	M	158.30	
129	Total concrete length of piles	M	22.90	
130	API Grade D pipe; 20mm thick; minimum yield strength 20kN; as reinforcement	M	171.20	
131	Cutting off tops to required levels	NO	142.40	
132	Preparing heads for capping	NO	55.70	
	Static Load Test			
133	Allow for 1 number preliminary testing on a group of 2 numbers 200mm Diameter pile to a total combined load of 1,200KN.	ITEM	22,604.20	

EXCAVATOR

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	Cut down and clear away from site, trees exceeding 300mm and not exceeding 600mm girth at 1.00m above ground level including grubbing up roots and filling up holes with approved earth.	NO	206.00	
2	Ditto exceeding 600mm and not exceeding 1200mm girth ditto.	NO	275.40	
3	Ditto exceeding 1200mm and not exceeding 1800mm girth ditto.	NO	561.40	
4	Excavate oversite average 150mm deep to level off formation or reduce level.	M2	2.90	
5	Excavate to obtain formation level, load and transport excavated material to temporary spoil heap or filling area within site (by mechanical equipment).	M3	3.70	
6	Ditto, away from site within 1 km lead.	M3	6.70	
7	Transport only through each subsequent 1 km lead.	M3	0.70	
8	Excavate for foundation trenches, pier, manholes, septic tanks, filter beds etc. maximum depth not exceeding 0.25m deep, backfill and remove surplus spoil and deposit, spread and level on site as specified.	M3	3.50	
9	Ditto maximum depth not exceeding 1.00m ditto.	M3	12.60	
10	Ditto maximum depth not exceeding 2.00m ditto.	M3	18.70	
11	Ditto maximum depth not exceeding 4.00m ditto.	M3	24.40	
12	Excavation and removal of unsuitable material to contractor's own dumping source within 10km from site (by mechanical equipment).	M3	13.30	
13	Imported earth from contractor's own source within 10 km from site including unloading in filling areas.	M3	29.10	
14	Imported sandfill ditto.	M3	47.70	
15	Transportation of the imported earth from contractor's own source through each subsequent 1 km lead.	M3	0.70	
16	Spread, level and compact excavated earth/imported earth in layers as specified in filling areas.	M3	2.30	
17	Spread, level and compact surplus excavated earth in areas away from site.	M3	2.40	
18	Hardcore as specified.	M3	60.80	
19	50mm Thick sand filling, spread and levelled under concrete slabs and floor.	M2	2.90	

EXCAVATOR...(CONT'D)

Notes :

1. Item 6 and 7 - If it comes to the knowledge of the S.O that the Contractor is selling the surplus excavated material, then the Contractor is not entitled to any payment in respect of this item.

2. In the measurement of quantities of earth either carting away or filling, the S.O shall ensure that these are the compacted or consolidated quantity. For guidance, the following are the average increases in bulk of various types of ground after excavation.

<u>Type</u>	<u>Percent</u>
Gravel	10
Sand	12 1/2
Ordinary Earth	25
Clay	33 1/3
Chalk	33 1/3
Rock	50

CONCRETOR

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	Concrete grade 15P (1:3:6-38mm gauge granite) as specified in foundations.	M3	238.70	
2	Ditto grade 15P (1:3:6-25mm gauge granite) as specified in floors, aprons, kerbs, steps etc.	M3	247.40	
3	Concrete grade 20P (1:2:4-20mm gauge granite) as specified in foundations.	M3	277.30	
4	Ditto, as specified in ground floor slabs, aprons, kerbs, steps etc.	M3	285.90	
5	Ditto, as specified in suspended floor slabs, walls, columns, stairs, landings, canopy slabs, roof slabs, gutter sides and bottoms etc.	M3	290.20	
6	Concrete grade 25P (1:1 1/2:3-20mm gauge granite) as specified in foundations.	M3	312.40	
7	Ditto, as specified in ground floor slabs, aprons, curbs, steps etc.	M3	321.00	
8	Ditto, as specified in suspended floor slabs, walls, columns, stairs, landings, canopy slabs, roof slabs, gutter sides and bottoms etc.	M3	325.30	
9	Concrete grade 30P (1:1:2-20mm gauge granite) as specified in foundations.	M3	341.40	
10	Ditto, as specified in ground floor slabs, aprons, kerbs, steps etc.	M3	345.80	
11	Ditto, as specified in suspended floor slabs, walls, columns, stairs, landings, canopy slabs, roof slabs, gutter sides and bottoms etc.	M3	372.10	
12	Concrete grade 35P (1:1.6:2.9-20mm gauge granite) as specified in foundations.	M3	364.10	
13	Ditto, as specified in ground floor slabs, aprons, kerbs, steps etc.	M3	368.40	
14	Ditto, as specified in suspended floor slabs, walls, columns, stairs, landings, canopy slabs, roof slabs, gutter sides and bottoms etc.	M3	394.70	
15	Concrete grade 40 as specified in foundations.	M3	391.50	
16	Ditto, as specified in ground floor slabs, aprons, kerbs, steps etc.	M3	400.10	
17	Ditto, as specified in suspended floor slabs, walls, columns, stairs, landings, canopy slabs, roof slabs, gutter sides and bottoms etc.	M3	416.60	
18	Mild steel bars in reinforcement to concrete work generally including all cutting, bending and placing in position:			
	a) 6mm Diameter.	KG	3.50	
	b) 10mm Diameter.	KG	3.40	
	c) 12mm Diameter.	KG	3.40	
	d) 16mm - 32mm Diameter.	KG	3.30	

CONCRETOR...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
19	High tensile steel bars in reinforcement to concrete work, generally including all cutting, bending and placing in position:			
	a) 10mm Diameter.	KG	3.50	
	b) 12mm Diameter.	KG	3.50	
	c) 16mm - 32mm Diameter.	KG	3.30	
20	Welded steel fabric reinforcement of 100mm x 200mm weighing 3.73 kg/ms and embedded in concrete (MS-B283/ B6).	M2	21.20	
21	Ditto 100mm x 200mm mesh weighing 4.53 kg/ms ditto (MS-B385/B7).	M2	26.40	
22	Ditto 100mm x 200mm mesh weighing 5.93 kg/m2 ditto (MS-B503/B8)	M2	36.40	
23	Ditto 100mm x 200mm mesh weighing 6.97 kg/m2 ditto (MS-B636/B9)	M2	42.60	
24	Ditto 200mm x 200mm mesh weighing 2.22 kg/ms ditto (MS-A142/A6).	M2	14.50	
25	Ditto 200mm x 200mm mesh weighing 3.02 kg/ms ditto (MS-A193/A7).	M2	25.70	
26	Ditto 200mm x 200mm mesh weighing 3.95 kg/m2 ditto (MS - A252/A8)	M2	26.30	
27	Ditto 200mm x 200mm mesh weighing 4.99 kg/m2 ditto (MS-A318/A9)	M2	32.50	
28	Ditto 200mm x 200mm mesh weighing 6.16 kg/ms ditto (MS-A393/A10).	M2	38.70	
29	Expanded metal reinforcement of 100mm x 400mm weighing 2.61kg/ms (MS-C283/ C6).	M2	16.60	
30	Ditto weighing 4.34 kg/ms (MS-C503/ C8).	M2	29.40	
	<u>SAWN FORMWORK AS SPECIFIED</u>			
31	To sides of foundation and ground beam.	M2	42.90	
32	To sides of wall.	M2	51.80	
33	To sides of column, staircase, lintols etc.	M2	53.40	
34	To sides and soffit of beam.	M2	53.40	
35	To soffit of suspended floor slab, roof slab, landing slab etc.	M2	73.20	
36	Extra over last four items for sloping surfaces.	M2	5.10	
37	Extra over for strutting to soffits exceeding 3.60m high for every 600mm stages.	M2	5.10	
38	Extra over sawn formwork for wrot surfaces.	M2	5.90	
39	Extra over sawn formwork for patterned formwork with fillets at 150mm centres or in 150mm wide "V" jointed timber boards.	M2	18.20	

CONCRETOR...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>PRECAST CONCRETE WORK</u>				
40	12mm Bitumen impregnated fibreboard 150mm wide as expansion joint filler in reinforced concrete structure including filling 10mm x 10mm recess with non shrinkable mastic grouting.	M	14.90	
41	150 mm Wide precast reinforced concrete (1:2:4 - 20mm aggregate) half round surface water drain channel including bends, junctions etc. finished fair on exposed surfaces and bedding as specified, including all necessary excavations.	M	14.90	
42	225 mm Wide ditto.	M	27.20	
43	300 mm Wide ditto.	M	31.60	
44	375 mm Wide ditto.	M	36.20	
45	450mm x 450mm x 75mm Thick precast reinforced concrete (1:2:4-20mm aggregate) 'longkang pencegah malaria' finished fair on exposed surfaces and bedding as specified including all necessary excavation.	M	144.10	
46	50mm Thick precast reinforced concrete (1:2:4-20mm aggregate) drain cover with and including one layer of fabric reinforcement, weighing 2.35kg/m ² (A6).	M2	69.60	
47	112mm x 150mm Precast concrete (1:2:4 - 20mm aggregate) lintol including formwork but excluding reinforcement.	M	24.60	
<u>DAMP PROOF MEMBRANE</u>				
48	'Pabkote No.3' or other approved bituminous damp proof membrane applied on concrete surfaces all to the approval of the S.O and in accordance with the manufacturer's instruction.	M2	15.70	

BRICKLAYER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	One brickwall in common bricks in cement mortar (1:6) as specified.	M2	86.60	
2	Ditto in cement mortar (1:3) ditto.	M2	89.60	
3	Half brickwall in common bricks in cement mortar (1:6) reinforced with and including brick reinforcement at every fourth course.	M2	47.60	
4	Ditto in cement mortar (1:3) ditto.	M2	49.00	
5	Extra over common brickwork for fair face in cement mortar (1:6) pointing on one side only as specified.	M2	8.00	
6	Half brickwall built honey-comb in cement mortar (1:6) with 113mm spaces as specified.	M2	26.10	
7	Half brickwall built entirely of facing bricks in gauged mortar (1:1:6) stuck weather pointing as specified.	M2	112.00	
8	One brickwall in cement bricks in cement mortar (1:6) as specified.	M2	71.70	
9	Ditto in cement mortar (1:3) ditto.	M2	76.90	
10	Half brickwall in cement bricks in cement mortar (1:6) reinforced with and including brick reinforcement at every fourth course.	M2	40.10	
11	Ditto in cement mortar (1:3) ditto.	M2	42.30	
12	One brickwall in calcium silicate bricks in cement mortar (1:6) as specified.	M2	82.80	
13	Ditto in cement mortar (1:3) ditto.	M2	85.60	
14	Half brickwall in calcium silicate bricks in cement mortar (1:6) reinforced with and including brick reinforcement at every fourth course.	M2	45.60	
15	Ditto in cement mortar (1:3) ditto.	M2	47.20	
16	Damp proof courses as specified (measured nett with no allowance made for laps in various widths as specified):			
	a) over 225mm wide	M2	11.40	
	b) not exceeding 225mm	M	2.60	
17	90mm Thick precast cement and sand hollow blocks in cement mortar (1:6) as specified.	M2	28.50	
18	Ditto in cement mortar (1:3) ditto.	M2	29.20	
19	114mm Thick precast cement and sand hollow blocks in cement mortar (1:6) as specified.	M2	42.20	
20	Ditto in cement mortar (1:3) ditto.	M2	43.30	
21	190mm Thick precast cement and sand hollow blocks in cement mortar (1:6) as specified.	M2	100.50	
22	Ditto in cement mortar (1:3) ditto.	M2	102.90	

BRICKLAYER...(CONT'D)

JABATAN KERJA RAYA

ROOFER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	Interlocking concrete roofing tiles laid to 318mm gauge on and including battens as specified (standard colours).	M2	47.90	
2	Ditto (premium colours).	M2	56.60	
3	Ditto laid to 343mm gauge ditto (standard colours).	M2	48.00	
4	Ditto (premium colours).	M2	52.10	
5	Hip or ridge to match interlocking concrete roof tiles as specified.	M	20.50	
6	Unglazed clay roofing tiles laid on and including battens as specified (standard colours).	M2	97.90	
7	Ditto (satin glazed).	M2	111.70	
8	Hip or ridge to match interlocking clay roof tiles (standard colours).	M	44.30	
9	Hip or ridge to match interlocking clay roof tiles (satin glazed).	M	49.80	
10	"Big-Six" asbestos cement roofing sheets as specified.	M2	23.60	
11	Two piece close fitting adjustable ridge capping ("big-six") as specified.	M	36.00	
12	Standard corrugated asbestos cement roofing sheets as specified.	M2	21.80	
13	Half round ridge capping.	M	18.10	
14	Two piece close fitting adjustable ridge capping.	M	24.70	
15	Standard corrugated asbestos roofing sheets (coloured).	M2	25.20	
16	Half round ridge capping (coloured).	M	18.80	
17	Two pieces close fitting adjustable ridge capping (coloured).	M	28.80	
18	Corrugated aluminium steel roofing 0.50mm thick as specified including cutting and fixing.	M2	52.90	
19	0.70mm Thick aluminium ridge capping 500mm girth.	M	85.40	
20	Approved interlocking galvanised steel roofing sheets (0.48mm thick) as specified decking secured to timber or steel purlins (measured separately) as per manufacturer's instructions, including 150mm end laps (measured nett no allowance made for laps).	M2	57.10	
21	0.48mm Thick galvanised steel ridge capping 600mm girth as specified.	M	36.60	
22	0.42mm Thick galvanised steel flashing 300mm girth as specified.	M	32.30	
23	Approved 3mm thick standard bituminous corrugated roofing sheet, fixed on timber joists or steel purlin (measured separately) all in accordance with the manufacturer's instruction (measured nett-no allowance for laps).	M2	49.10	
24	3mm Thick bituminous corrugated ridge capping 580mm girth as specified.	M	27.30	

ROOFER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
25	Approved ceramic roofing tiles laid on and including timber battens as specified	M2	105.10	
26	Hip or ridge to match ceramic roof tiles as specified	M	70.40	
27	Approved 6mm thick polycarbonate roofing sheet fixed on timber or steel purlins (measure separately) including forming curves and all in accordance with the manufacturer's instruction (measured nett-no allowance for laps).	M2	201.70	

DRAINLAYER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	Excavate trench for 100mm diameter drains and bed 400mm wide not exceeding 1.50m deep and average 900mm deep and back filling trench including removing surplus soil and deposit and spread and level on site as specified.	M	7.80	
2	Ditto exceeding 1.50m deep but not exceeding 3.00m deep and average 1.80m deep ditto.	M	17.20	
3	Excavate trench for 150mm diameter drains and bed 450mm wide not exceeding 1.50m deep and average 900mm deep ditto.	M	8.70	
4	Ditto exceeding 1.50m deep but not exceeding 3.00m deep and average 1.80m deep ditto.	M	18.60	
5	150mm Concrete (1:3:6-38mm aggregate) bed 450mm wide under 100mm diameter drain pipe and haunch as specified.	M	21.30	
6	Ditto 500mm wide under 150mm diameter drain pipe and ditto.	M	24.20	
7	Ditto under 100mm diameter drain pipe and completely surround as specified.	M	37.40	
8	Ditto under 150mm diameter drain pipe and ditto.	M	47.30	
9	Concrete (1:2:4 - 20mm aggregate) in benching average thickness of 150mm to bottom of manhole finished to steep falls towards channels and rendered with and including 13mm thick cement and sand (1:3) trowelled smooth.	M2	48.20	
10	13mm Thick cement and sand (1:3) waterproofed rendering as specified to internal sides of manhole or septic tank.	M2	15.30	
11	100mm Diameter vitrified clay pipe laid and jointed with flexible rubber ring as specified.	M	47.50	
12	Extra over bend.	NO	7.20	
13	Extra over 100mm x 100mm junction (Tee or Y).	NO	11.30	
14	150mm Diameter vitrified clay pipe laid and jointed with flexible rubber ring as specified.	M	58.60	
15	Extra over bend.	NO	17.10	
16	Ditto 150mm x 150mm junction (Tee or Y).	NO	19.10	
17	100mm Diameter vitrified clay half round straight channel and jointing in cement and sand (1:3).	M	25.90	
18	Extra over bend.	NO	7.60	
19	150mm Diameter vitrified clay pipe half round straight channel and jointing in cement and sand (1:3).	M	29.80	
20	Extra over bend.	NO	14.00	
21	225mm Diameter vitrified clay pipe half round straight channel and jointing in cement and sand (1:3).	M	4.80	

DRAINLAYER...(CONT'D)

Item No.	Description		Rate (RM)	Percentage(%) Increase/Decrease
22	Extra over bend.	NO	32.90	
23	100mm Diameter (medium duty) cast iron drains laid complete as specified.	M	78.30	
24	Extra over bend.	NO	12.60	
25	150mm Diameter (medium duty) cast iron drains laid complete as specified.	M	125.10	
26	Extra over bend.	NO	31.70	
27	100mm Diameter salt glazed drains (1st. Quality) laid and jointed with tarred gaskin and cement mortar (1:1) as specified.	M	14.60	
28	150mm Diameter ditto.	M	18.20	
29	100mm Diameter salt glazed stoneware half round straight channel and jointing in cement and sand (1:3).	M	7.90	
30	Extra for bend.	NO	4.50	
31	150mm Diameter salt glazed stoneware half round straight channel and jointing in cement and sand (1:3).	M	14.50	
32	Extra for bend.	NO	7.50	
33	100 mm Diameter UPVC Class "C" pipes laid and jointed with solvent weld as specified and in accordance with manufacturer's instructions.	M	19.40	
34	Extra for bend.	NO	36.60	
35	150 mm Diameter UPVC Class "C" pipes laid and jointed with solvent weld as specified and in accordance with manufacturer's instructions.	M	37.00	
36	Extra for bend.	NO	67.10	
37	19mm Diameter mild steel rod 750mm girth bent as required and with ends split caulked and built into brickwork as step iron.	NO	7.90	
38	610mm x 457mm Coated cast iron light duty single seal flat type manhole cover and frame to BS.497 in grade "C" weighing 25.45kg including setting frame in cement and sand (1:3) as specified and sealing cover with grease.	NO	101.70	
39	610mm x 457mm ditto weighing 38.18kg ditto.	NO	154.10	
40	762mm x 762mm ditto medium duty ditto grade "B" weighing 234.00kg ditto.	NO	917.30	
41	588mm Diameter coated cast iron heavy duty single seal flat type manhole cover and frame to BS.497 in grade "A" weighing 245.00kg including setting frame in cement and sand (1:3) as specified and sealing cover with grease.	NO	1,045.10	

DRAINLAYER...(CONT'D)

Item No.	Description		Rate (RM)	Percentage(%) Increase/Decrease
42	30mm - 100mm gauge graded limestone in filter bed as filter media.	M3	61.60	
43	100mm Diameter unglazed clayware subsoil drain pipe laid with open joints.	M	5.00	
44	150mm Diameter ditto.	M	6.10	
45	150mm Diameter half round glazeware drain cast in suitable length, finished fair on exposed surfaces, bedded, jointed and pointed in cement mortar (1:3) and including plain concrete as specified.	M	12.40	
46	Extra over bend.	NO	4.30	
47	225mm Diameter half round glazeware drain cast in suitable length, finished fair on exposed surfaces, bedded, jointed and pointed in cement mortar (1:3) and including plain concrete as specified.	M	13.40	
48	Extra over bend.	NO	5.90	

CARPENTER AND JOINER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
	The Following In Wrot Pressure-Treated S.G. 3 & S.G. 4 (Group "B") Timber Unless Otherwise Stated.			
1	Frames to doors, windows and vents including fixing (S.G. 1 & S.G. 2 (Group "A") timber) .	M3	3,089.10	
2	Floor joists, roof trusses, rafters, ceiling joists and partitions including fixing. (Sawn S.G. 1 & S.G. 2 (Group "A") timber).	M3	3,352.60	
3	Floor joist, roof trusses, rafters, ceiling joists, partitions and ramps including fixing (Sawn S.G. 3 & S.G. 4 (Group "B") timber).	M3	2,148.60	
4	38mm Thick framed, ledged and braced doors and windows including fixing but excluding ironmongery (measured overall).	M2	170.70	
5	38mm Thick panelled doors and casement windows, open and rebated for glass or other infill (measured separately) including fixing but excluding ironmongery (ditto).	M2	174.50	
6	51mm Thick louvred doors and windows including ditto (ditto).	M2	180.20	
7	38mm Thick skeleton framed flush door covered both sides with 6mm thick plywood including ditto (ditto).	M2	90.30	
8	Approved one hour fire rated doors in timber frame including assembling all in accordance with the manufacturer's instructions complete with accessories, single leaf size 900mm x 2100mm x 44mm thick.	NO	943.90	
9	Ditto - Double leaf size 1800mm x 2100mm x 44mm thick.	NO	1,856.90	
10	Approved two hour fire rated doors in timber frame including assembling all in accordance with the manufacturer's instructions complete with accessories, single leaf size 900mm x 2100mm x 48mm thick.	NO	1,590.50	
11	Ditto - Double leaf size 1800mm x 2100mm x 48mm thick.	NO	3,003.80	
12	28mm Thick approved PVC flush door overall size 750mm x 2100mm including fixing but excluding ironmongery.	NO	144.90	
13	38mm Thick approved PVC flush door overall size 875mm x 2100mm ditto.	NO	225.10	
14	28mm Thick approved PVC sliding/folding door overall size 775mm x 2125mm including fixing but excluding ironmongery.	NO	160.60	
15	32mm Thick tongued and grooved floor boarding.	M2	117.30	
16	19mm Thick weather boarding (measured nett).	M2	61.10	
17	25mm Thick barge boards and fascias.	M2	78.60	
18	19mm Thick boarding in shelves.	M2	65.40	
19	13mm Thick "Damar Minyak" wall panelling comprising of 51mm x 13mm and 25mm x 13mm strips fixed at 25mm apart as specified.	M2	139.30	

CARPENTER AND JOINER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
20	Moulded skirting, architrave, picture rails and cornices in S.G. 5 & S.G. 6 (Group "C") timber including fixing.	M3	4,875.40	
21	Staircase component in S.G. 1 & S. G. 2 (Group "A") timber including fixing.	M3	3,651.60	
22	13mm Thick soft board in ceiling fixed complete including V-jointed and cutting.	M2	42.00	
23	3mm Thick asbestos cement sheeting in ceiling fixed complete as specified.	M2	23.50	
24	5mm Ditto.	M2	27.40	
25	6mm Ditto.	M2	31.20	
26	9mm Thick chipboard in ceiling fixed complete butt or V-jointed and cutting.	M2	21.10	
27	13mm Ditto.	M2	24.30	
28	8mm Thick gypsum plaster board in ceiling fixed complete including cutting.	M2	20.80	
29	6mm Thick cemboard in ceiling fixed complete as specified.	M2	30.50	
30	8mm Ditto.	M2	35.60	
31	10mm Ditto.	M2	40.00	
32	6mm Thick plywood panel in partition including fixing.	M2	17.60	
33	10mm Ditto.	M2	22.50	
34	13mm Ditto.	M2	30.80	
35	6mm Thick approved cement board in partition including fixing but excluding framing.	M2	27.90	
36	12mm Ditto.	M2	47.60	
37	24mm Ditto.	M2	71.40	
38	9mm Thick approved gypsum board in partition including fixing but excluding framing.	M2	31.60	
39	12mm Ditto.	M2	38.00	
40	1mm Thick "Formica" or equivalent laminated plastic sheeting including fixing.	M2	50.10	
41	50mm Thick "Insulite" woodwool-slabs including fixing.	M2	53.50	
42	32mm Thick perforated acoustic boards fixed to walls as specified.	M2	145.10	
43	13mm Thick mineral fibre board ceiling, exposed lay in grid and complete with metal framing as specified (simple pattern).	M2	78.30	

CARPENTER AND JOINER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
44	16mm Ditto (ditto).	M2	70.60	
45	13mm Thick mineral fibre board ceiling with concealed metal suspension and joint edge and complete with ditto (ditto).	M2	125.10	
46	16mm Ditto (ditto).	M2	117.40	
47	10mm Thick plain fibrous plasterglass ceiling board on and including galvanised iron suspension system as specified.	M2	70.40	
48	13mm Ditto.	M2	75.40	
49	65mm x 65mm approved plasterglass plain cornice as specified.	M	11.30	
50	50mm Thick resilient and flexible bounded fine glass fibre mat lining (density 10 kg/m3) and fixing to wall as specified.	M2	12.50	
51	Layer of single sided reinforced aluminium foil insulation laid to slope with 150mm laps (measured nett-no allowance made for laps).	M2	7.60	
52	25mm Thick "Rockwool" mineral woolslab (N0.337) sandwiched between timber framing (measured separately).	M2	23.40	
53	Galvanised chicken wire netting 50mm mesh, fixed with tying wire to purlins including 150mm laps (measured nett-no allowance made for laps).	M2	6.50	

IRONMONGERY

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
	<u>Supply and fix the following ironmongery:</u>			
1	75mm Steel butt hinges (75mm x 60mm).	PR	10.00	
2	100mm Ditto (100mm x 60mm).	PR	12.20	
3	100mm Galvanised steel butt hinges	PR	15.60	
4	75mm Brass butt hinges (75mm x 60mm).	PR	16.40	
5	100mm Ditto (100mm x 60mm).	PR	21.60	
6	100mm Stainless steel butt hinges	PR	19.60	
7	75mm Counter flap brass hinges.	PR	34.30	
8	150mm Brass cabin hook and eye.	NO	17.20	
9	100mm Cabinet "D" handle (locally manufactured).	NO	9.60	
10	150mm Ditto (ditto).	NO	18.50	
11	1 set 300mm standard galvanised steel adjustable friction stay.	NO	22.40	
12	1 set 300mm standard stainless steel ditto.	NO	45.00	
13	Window spring catch.	NO	15.80	
14	Window fastener.	NO	21.30	
15	Window handle (casement window handle bronze aluminium).	NO	13.90	
16	Extruded aluminium hat and coat hook with rubber buffer.	NO	17.40	
17	300mm Nylon cranked pull door handle	NO	985.00	
18	200mm Brass barrel bolt.	NO	22.10	
19	250mm Ditto.	NO	29.50	
20	150mm x 19mm Aluminium lever action flush bolt (locally manufactured).	NO	41.00	
21	200mm x 19mm Ditto (ditto).	NO	45.40	
22	150mm x 25mm Stainless steel flush bolt.	NO	30.90	
23	300mm x 25mm Ditto.	NO	39.50	
24	100mm x 50mm Flush pull (locally manufactured).	NO	20.30	
25	37.50mm Brass cylinder padlock (locally manufactured).	NO	30.90	
26	50mm Ditto (ditto).	NO	90.80	
27	62.50mm Ditto (ditto).	NO	54.90	

IRONMONGERY....(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
	<u>Supply and fix the following ironmongery (Cont'd)</u>			
28	Approved light duty door closer (locally manufactured).	NO	92.40	
29	Double action floor spring.	NO	810.40	
30	40mm/38mm Diameter rubber door stop.	NO	2.70	
31	Approved door selector (locally manufactured).	NO	74.10	
32	50mm Brass cupboard lock.	NO	27.40	
33	62.50mm Cylinder sliding cupboard lock.	NO	62.20	
34	Bathroom indicating bolt.	NO	38.00	
35	2 lever mortice lockset (CROWN or other approved equivalent).	NO	21.90	
36	2 lever rebated mortice lockset (ditto).	NO	33.10	
37	3 lever mortice lockset (ditto).	NO	40.40	
38	3 lever rebated mortice lockset (ditto).	NO	52.80	
39	Thumb turn cylinder deadlock in stainless steel finish.	NO	170.80	
40	Approved double cylinder deadlock.	NO	195.40	
41	60mm Cylindrical mortice door lock (5 pins thumb turn button).	NO	89.00	
42	60mm Ditto but rebated (ditto).	NO	58.20	
43	70mm Brass ball catch.	NO	17.80	

PAVIOR, PLASTERER AND TILE FIXER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	20mm Thick cement and sand (1:2) waterproofed rendering as specified on concrete slab.	M2	16.00	
2	32mm Thick ditto.	M2	20.70	
3	20mm Thick ditto skirting 150mm high with rounded top edge and coved at bottom.	M	8.00	
4	20mm Thick cement and sand (1:3) rendering to floor as specified.	M2	12.50	
5	25mm Thick ditto.	M2	14.90	
6	38mm Thick ditto.	M2	19.30	
7	20mm Thick ditto skirting 100mm high as specified.	M	4.40	
8	20mm Thick cement and sand (1:3) rendering to floor in coloured cement as specified.	M2	14.40	
9	25mm Thick ditto.	M2	17.80	
10	38mm Thick ditto.	M2	21.80	
11	20mm Thick ditto skirting 100mm high as specified.	M	8.00	
12	200mm x 200mm x 7mm Thick non-slip ceramic tiles including screeding as specified.	M2	89.00	
13	300mm x 300mm x 8mm Thick ditto.	M2	100.60	
14	300mm x 300mm x 8mm Thick ceramic tiles including screeding as specified.	M2	93.60	
15	100mm High skirting for 200mm x 7mm thick ceramic tiles as specified.	M	8.70	
16	Ditto for 300mm x 8mm thick ditto.	M	10.00	
17	200mm x 200mm x 7mm Thick non-slip heavy duty homogenous tiles including screed as specified.	M2	99.90	
18	300mm x 300mm x 8.5mm Ditto.	M2	99.00	
19	100mm High skirting for 200mm x 8mm heavy duty homogenous ceramic tiles as specified.	M	9.90	
20	Ditto for 300mm x 8.5mm thick ditto.	M	10.50	
21	100mm x 200mm x 9mm Thick quarry tile flooring as specified.	M2	91.80	
22	Quarry tile skirting 100mm high.	M	14.30	
23	25mm x 25mm x 5mm Thick unglazed mosaic flooring as specified including screed.	M2	91.60	
24	Unglazed mosaic tile skirting 100mm high as specified ditto.	M	17.00	

PAVIOR, PLASTERER AND TILE FIXER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
25	25mm x 25mm x 5mm semi-glazed mosaic tile flooring (Square Pattern) as specified including screed.	M2	98.80	
26	Semi-glazed mosaic tile skirting 100mm high as specified including screed.	M	17.80	
27	25mm x 25mm x 5mm semi-glazed mosaic tile flooring (Random Pattern) as specified including screed.	M2	101.70	
28	Precast terrazzo tile flooring as specified including screed.	M2	90.90	
29	20mm Thick in-situ terrazzo flooring including 16mm (1:3) mortar screed as specified.	M2	73.40	
30	20mm Thick in-situ terrazzo skirting 100mm high as specified including screed.	M	14.90	
31	Teak parquet flooring including screed.	M2	443.10	
32	Kempas parquet flooring ditto.	M2	289.30	
33	275mm High riser for teak parquet flooring with rounded top edge.	M	117.00	
34	550mm High ditto.	M	231.30	
35	13mm x 75mm High timber skirting to match parquet flooring.	M	29.30	
36	20mm Thick granolithic flooring as specified.	M2	12.00	
37	Ditto skirting 100mm high with rounded top edge and coved at bottom.	M	4.00	
38	300mm x 300mm x 1.6mm thick Vinyl tile flooring as specified including screed.	M2	51.80	
39	100mm High vinyl skirting ditto.	M	9.50	
40	35mm x 4mm Aluminium dividing strip fixed and cast in floor finish as specified.	M	12.10	
41	16mm Thick cement mortar (1:6) with plasticiser plastering in two coats as specified to walls.	M2	11.30	
42	12mm Ditto to soffit, beam etc.	M2	14.10	
43	20mm Thick cement and sand (1:3) plastering in two coats as specified on walls.	M2	16.70	
44	200mm x 200mm x 7mm Thick coloured glazed wall tiles, first quality fixed including screed and all internal and external angles, coved and round edged tiles and all cutting and fixing as specified.	M2	73.20	

STEEL AND IRONWORKER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	Rolled mild steel in roof trusses, braces, gusset plates, bearing plates etc. including rivetting, welding, bolting, hoisting and fixing.	KG	4.80	
2	Rolled mild steel in angles, joists, channels, plates, etc. including cutting, drilling, assembling, welding, rivetting, bolting etc.	KG	6.30	
3	Mild steel hollow sections including cutting, drilling, assembling, welding etc.	KG	7.80	
4	1.0mm Thick galvaneal window or door frame including cutting, drilling, assembling, welding, rivetting, bolting etc.	M	27.50	
5	Design, supply, fabricate and deliver to site including fixing and hoisting in position steel roof truss, rafters, chord, bearers, ties, struts, wall plates, truss connectors, straps, bolts and nuts and other associated works, materials and labour required for the complete installation of the fabricated steel trusses to S.O.'s approval.	M2	88.40	
6	Supply and fix the following mild steel bolts complete with nuts and washers:-			
	a) 19mm - 25mm Diameter bolts.	KG	9.30	
	b) 13mm - 16mm Ditto.	KG	9.30	
	c) 9mm Ditto.	KG	9.30	
	d) 8mm Ditto.	KG	9.40	
	e) 6mm Ditto.	KG	10.10	
7	50mm x 50mm x 2mm Thick galvanised wire mesh.	M2	20.50	
8	50mm x 25mm x 2mm Ditto.	M2	23.50	
9	Pair of self finished electro galvanised steel adjustable louvre style, 4 blades and fixing (single control).	NO	19.00	
10	Add for each additional louvre blade.	NO	5.60	
11	Pair of self finished galvanised pressed steel adjustable louvre style, 8 blades and fixing (single control)	NO	24.20	
12	Pair of self finished galvanised pressed steel adjustable louvre style, 8 blades and fixing (double control).	NO	24.40	
13	Add for each additional louvre blade.	NO	5.30	
14	10mm Diameter mild steel burglar bars and fixing	M	6.10	
15	12mm Ditto	M	7.80	
16	Supply and fix 1.0mm thick natural anodised aluminium side hung casement window complete with all necessary framing and accessories (glass measured separately) and fixing, all as per instruction and to the approval of the S.O.	M2	215.00	

STEEL AND IRONWORKER....(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
17	Supply and fix window grille comprising of 20mm x 20mm mild steel hollow section framing infilled with 20mm x 3.2mm thick mild steel plate set in rectangular design at 100mm centres, all welded together including painting.	M2	123.00	
18	Supply and fix door grille ditto.	M2	155.20	
19	Supply and fix 1.0mm thick natural anodised aluminium two panel sliding window complete with all necessary framing and accessories, beading on top and bottom of frame (glass measured separately) and fixing, all as per instruction and to the approval of the S.O.	M2	183.30	
20	Supply and fix 1.0mm thick natural anodised aluminium three panel sliding door ditto.	M2	230.80	
21	Supply and install 3.00m x 2.40m mild steel collapsible door including channel, tracks, guides, etc. and fixing, all as per instruction and to the approval of the S.O.	NO	1,567.60	

PLUMBER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	Galvanised iron 16 gauge (1.55mm) in flashing, collars etc. including jointing and cutting fixed as specified.	M2	101.00	
2	Galvanised iron 18 gauge (1.2mm) ditto.	M2	91.60	
3	Galvanised iron 16 gauge (1.55mm) in valley gutters and gutter lining including jointing and cutting fixed as specified.	M2	106.60	
4	Galvanised iron 22 gauge (0.77mm) 100mm diameter half round eave gutters including jointing and fixing with brackets as specified.	M	38.70	
5	Extra for stopped end, angle or outlet.	NO	5.30	
6	Galvanised iron 22 gauge (0.77mm) rainwater box gutter, 600mm girth (200mm x 200mm) including fixing to timber and cutting hole for downpipe.	M	55.50	
7	Extra for stopped end, angle or outlet.	NO	16.20	
8	Galvanised iron 22 gauge (0.77mm) 100mm diameter rainwater downpipe with socketed joints, jointed in red lead and fixed to wall with pipe nails, holderbats or brackets.	M	25.30	
9	Extra over for bend, swan neck or shoes.	NO	12.70	
10	Galvanised iron 22 gauge (0.77mm) 100mm x 75mm rainwater downpipe and fixed to wall with approved holderbats.	M	36.10	
11	Extra over for bend, shoes and short lengths.	NO	15.20	
12	75mm Diameter UPVC rainwater down pipe jointed with socket connectors and fixed to wall with brackets and distance pieces.	M	31.20	
13	Extra over for bend (elbow).	NO	14.30	
14	100mm Diameter UPVC rainwater downpipe ditto.	M	33.30	
15	Extra over for bend (elbow).	NO	15.20	
16	155mm Diameter UPVC rainwater downpipe ditto.	M	43.30	
17	Extra over for bend (elbow).	NO	50.80	
18	150mm Half round PVC rainwater gutter including jointing and fixing with brackets.	M	49.70	
19	Extra for stopped end.	NO	9.20	
20	Approved galvanised iron wire balloon grating and fixing to end of 100mm diameter pipe.	NO	6.20	
21	50mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	44.10	
22	Extra over for bend.	NO	21.80	
23	Ditto for 45 degree Y junction with back door.	NO	46.80	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
24	75mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	65.50	
25	Extra over for bend.	NO	29.10	
26	Ditto for 45 degree Y junction with back door.	NO	48.90	
27	100mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	80.70	
28	Extra over for bend.	NO	36.00	
29	Ditto for 45 degree Y junction with back door.	NO	60.40	
30	150mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	123.00	
31	Extra over for bend.	NO	76.80	
32	Ditto for bend with cleaning eye.	NO	92.60	
33	Approved fibreglass water tank with lid fixed complete:-			
	a) Size 100 gallons (nominal).	NO	567.80	
	b) Size 200 gallons (nominal).	NO	851.10	
	c) Size 250 gallons (nominal).	NO	1,058.20	
	d) Size 400 gallons (nominal).	NO	1,742.20	
	e) Size 660 gallons (nominal).	NO	2,480.00	
	f) Size 880 gallons (nominal).	NO	3,366.20	
34	Approved High Density Polyethelene (HDPE) watertank with lid fixed complete:-			
	a) Size 100 gallons (nominal).	NO	271.90	
	b) Size 200 gallons (nominal).	NO	500.40	
	c) Size 250 gallons (nominal).	NO	571.40	
	d) Size 400 gallons (nominal).	NO	1,014.70	
35	Supply and fix the following item:			
	a) 19mm Flanged tank connection and jointed to galvanised mild steel tubing and mild steel cistern including welding flange to and perforation in cistern.	NO	14.40	
	b) 25mm Ditto.	NO	18.20	
	c) 32mm Ditto.	NO	24.40	
	d) 38mm Ditto.	NO	28.50	
	e) 50mm Ditto.	NO	40.60	
	f) 75mm Ditto.	NO	67.00	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
36	Supply and fix the following item: a) 19mm High pressure equilibrium ball valve as specified with plastic ball and thread brazed on brass stem and body with flynut and lead washers and fixing to cistern including drilling cistern and jointing to cold water tubing.	NO	49.10	
	b) 25mm Ditto.	NO	62.90	
37	Supply and fix the following item: a) 19mm High pressure equilibrium ball valve as specified with blown copper ball and thread brazed on brass stem and body with flynut and lead washers and fixing to cistern including drilling cistern and jointing to cold water tubing.	NO	103.70	
	b) 25mm Ditto.	NO	189.40	
	c) 32mm Ditto.	NO	441.50	
	d) 38mm Ditto.	NO	473.30	
	e) 50mm Ditto.	NO	748.50	
	f) 75mm Ditto.	NO	1,531.40	
	g) 100mm Ditto.	NO	2,039.60	
38	Supply and fix the following item: a) 13mm Pressure screw down stopcock and jointed to galvanised mild steel tubing both ends.	NO	11.10	
	b) 19mm Ditto.	NO	16.50	
	c) 25mm Ditto.	NO	23.50	
	d) 32mm Ditto.	NO	64.60	
	e) 38mm Ditto.	NO	75.20	
	f) 50mm Ditto.	NO	113.20	
39	Galvanised mild steel tubing in Class "C" as specified:- a) 13mm Diameter galvanised mild steel tubing in Class "C" as specified including couplings, connectors, bends, elbows and tees.	M	13.90	
	b) 19mm Ditto.	M	18.80	
	c) 25mm Ditto.	M	28.10	
	d) 32mm Ditto.	M	42.10	
	e) 38mm Ditto.	M	58.20	
	f) 50mm Ditto.	M	66.70	
	g) 63mm Ditto.	M	100.30	
	h) 75mm Ditto.	M	132.40	
	i) 100mm Ditto.	M	191.30	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
40	Galvanised mild steel tubing in Class "B" as specified:- a) 13mm Diameter galvanised mild steel tubing in Class "B" including all necessary bends, elbows, tees, fixed complete as specified.	M	12.90	
	b) 19mm Ditto.	M	17.80	
	c) 25mm Ditto.	M	25.70	
	d) 32mm Ditto.	M	39.30	
	e) 38mm Ditto.	M	49.40	
	f) 50mm Ditto.	M	62.20	
	g) 63mm Ditto.	M	94.30	
	h) 75mm Ditto.	M	125.90	
	i) 100mm Ditto.	M	181.70	
41	UPVC pipes Class "E" as specified:- a) 15mm Diameter UPVC pipe in Class "E" including fixing as specified.	M	7.20	
	b) 20mm Ditto.	M	8.10	
	c) 25mm Ditto.	M	9.80	
42	UPVC pipes Class "D" as specified:- a) 32mm Diameter UPVC pipe in Class "D" including fixing as specified.	M	8.80	
	b) 40mm Ditto.	M	9.90	
	c) 50mm Ditto.	M	12.90	
	d) 75mm Ditto.	M	22.20	
	e) 100mm Ditto.	M	36.60	
43	UPVC fittings as specified:- a) 15mm Diameter elbow.	NO	1.90	
	b) 20mm Ditto.	NO	2.70	
	c) 25mm Ditto.	NO	3.90	
	d) 32mm Ditto.	NO	5.70	
	e) 40mm Ditto.	NO	7.70	
	f) 50mm Ditto.	NO	11.40	
	g) 75mm Ditto.	NO	20.00	
	h) 100mm Ditto.	NO	38.20	
	i) 15mm Diameter bend.	NO	2.30	
	j) 20mm Ditto.	NO	3.20	
	k) 25mm Ditto.	NO	4.90	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
43	UPVC fittings (Cont'd)			
	l) 32mm Diameter bend.	NO	6.90	
	m) 40mm Ditto.	NO	8.70	
	n) 50mm Ditto.	NO	13.00	
	o) 75mm Ditto.	NO	21.40	
	p) 100mm Ditto.	NO	39.20	
	q) 15mm Diameter tee.	NO	3.00	
	r) 20mm Ditto.	NO	4.40	
	s) 25mm Ditto.	NO	6.20	
	t) 32mm Ditto.	NO	8.40	
	u) 40mm Ditto.	NO	11.00	
	v) 50mm Ditto.	NO	15.60	
	w) 75mm Ditto.	NO	27.50	
	x) 100mm Ditto.	NO	57.90	
	y) 15mm Diameter socket double end.	NO	2.60	
	z) 20mm Ditto.	NO	3.80	
	aa) 25mm Ditto.	NO	5.10	
	ab) 32mm Ditto.	NO	6.30	
	ac) 40mm Ditto.	NO	8.60	
	ad) 50mm Ditto.	NO	11.90	
	ae) 75mm Ditto.	NO	14.00	
	af) 100mm Ditto.	NO	26.50	
44	ABS pipe in Class "C" including fixing as specified:-			
	a) 25mm Diameter.	M	17.70	
	b) 50mm Ditto.	M	32.00	
	c) 75mm Ditto.	M	55.40	
	d) 100mm Ditto.	M	88.10	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
45	ABS pipe in Class "D" including fixing as specified:-			
	a) 25mm Diameter.	M	19.00	
	b) 50mm Ditto.	M	38.20	
	c) 75mm Ditto.	M	65.60	
	d) 100mm Ditto.	M	113.10	
46	ABS pipe in Class "E" including fixing as specified:-			
	a) 15mm Diameter.	M	15.60	
	a) 25mm Ditto.	M	23.80	
	b) 50mm Ditto.	M	52.80	
	c) 75mm Ditto.	M	105.70	
	d) 100mm Ditto.	M	165.00	
47	ABS pipe fittings as specified:-			
	a) 15mm Diameter 90 deg. Elbow.	NO	6.10	
	b) 25mm Ditto.	NO	6.30	
	c) 50mm Ditto.	NO	21.50	
	d) 75mm Ditto.	NO	77.30	
	e) 100mm Ditto.	NO	110.60	
	f) 15mm Diameter 45 deg. Elbow.	NO	8.40	
	g) 25mm Ditto.	NO	9.10	
	h) 50mm Ditto.	NO	20.10	
	i) 75mm Ditto.	NO	75.10	
	j) 100mm Ditto.	NO	108.50	
	k) 15mm Diameter equal socket.	NO	5.60	
	l) 25mm Ditto.	NO	6.20	
	m) 50mm Ditto.	NO	13.90	
	n) 75mm Ditto.	NO	49.60	
	o) 100mm Ditto.	NO	77.20	
	p) 15mm Diameter equal tee.	NO	7.20	
	q) 25mm Ditto.	NO	8.30	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
47	ABS pipe fittings as specified (Cont'd):-			
	r) 50mm Diameter equal tee.	NO	23.20	
	s) 75mm Ditto.	NO	94.60	
	t) 100mm Ditto.	NO	132.30	
	u) 15mm Diameter end cap.	NO	5.90	
	v) 25mm Ditto.	NO	6.20	
	w) 50mm Ditto.	NO	15.20	
	x) 75mm Ditto.	NO	96.40	
	y) 100mm Ditto.	NO	180.30	
48	HDPE pipe grade PN 10 including fixing as specified:-			
	a) 25mm Diameter.	M	3.90	
	b) 32mm Ditto.	M	4.50	
	c) 50mm Ditto.	M	7.70	
	d) 75mm Ditto.	M	15.10	
49	HDPE pipe fittings as specified:-			
	a) 25mm Diameter 90 deg. Elbow.	NO	10.60	
	b) 32mm Ditto.	NO	14.90	
	c) 50mm Ditto.	NO	31.30	
	d) 75mm Ditto.	NO	51.90	
	e) 25mm Diameter equal tee.	NO	15.30	
	f) 32mm Ditto.	NO	20.50	
	g) 50mm Ditto.	NO	41.90	
	h) 75mm Ditto.	NO	72.00	
	i) 25mm Diameter Straight Coupler.	NO	11.30	
	j) 32mm Ditto.	NO	14.90	
	k) 50mm Ditto.	NO	29.20	
	l) 75mm Ditto.	NO	52.20	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
49	HDPE pipe fittings as specified: (cont'd)			
	m) 25mm Diameter Male Threaded Adaptor (MTA).	NO	7.70	
	n) 32mm Ditto.	NO	9.30	
	o) 50mm Ditto.	NO	21.20	
	p) 75mm Ditto.	NO	34.00	
	q) 25mm Diameter Female Threaded Adaptor (FTA).	NO	7.50	
	r) 32mm Ditto.	NO	11.20	
	s) 50mm Ditto.	NO	22.30	
	t) 25mm Diameter Reducer Coupling.	NO	10.50	
	u) 32mm Ditto.	NO	14.20	
	v) 50mm Ditto.	NO	28.00	
	w) 75mm Ditto.	NO	45.50	
50	<u>Supply and fix the following sanitary fittings:-</u>			
	a) 150mm x 150mm Semi-recessed, white glazed vitreous china toilet roll holder.	NO	43.00	
	b) 150mm x 150mm Semi-recessed white glazed vitreous china soap holder.	NO	46.00	
	c) 300mm x 150mm White glazed vitreous china recessed combined soap dish and sponge holder.	NO	122.00	
	d) 550mm x 125mm Plate glass shelf complete with chromium plated brass brackets.	NO	38.00	
	e) 600mm x 25mm Diameter chromium plated towel rail with ball and brackets for fixing.	NO	148.00	
	f) 550mm x 400mm Bevelled edged plate glass mirror complete with 3mm thick plywood backing and fixed with chromium plated dome headed fixing screws and cork washers.	NO	69.00	
	g) 12mm Chromium plated bib tap.	NO	56.30	
	h) 12mm Wall mounted mixer with 150mm lever swivel anti splash nozzle or approved equivalent.	NO	77.40	
	i) 576mm x 426mm Wash basin in white vitreous china complete with 13mm chromium plated tap blank, tap hole stopper, 32mm "P" trap including 38mm 'seal' waste fitting with chain and plug and painted bracket support.	NO	240.00	
	j) Ditto with two 13mm chromium plated taps, marked 'hot' and 'cold'.	NO	370.00	
	k) 500mm x 420mm Wall hung clinical wash hand basin in white vitreous china with taphole, overflow & chainhole.	NO	1,376.00	

PLUMBER...(CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
50	<u>Supply and fix the following sanitary fittings (Cont'd):-</u>			
	l) White vitreous china sink size 352mm x 352mm x 228mm complete with 38mm trap including 13mm chromium plated pillar tap etc. as specified.	NO	264.00	
	m) Ditto size 572mm x 356mm x 235mm complete with 38mm trap, 13mm chromium plated pillar tap etc. as specified.	NO	341.00	
	n) Single bowl and single drainer stainless steel sink size 900mm x 450mm x 169mm complete with 13mm chromium plated pillar tap, 38mm trap etc. as specified.	NO	166.00	
	o) Single bowl and single drainer stainless steel sink size 1050mm x 450mm x 169mm complete with 13mm chromium plated pillar tap, 38mm trap etc. as specified.	NO	353.00	
	p) Double bowl and double drainer stainless steel sink 1800mm x 525mm complete with 13mm chromium plated pillar taps 38mm trap etc. as specified.	NO	410.00	
	q) Squatting W.C. set including cistern as specified.	NO	418.00	
	r) Pedestal W.C. set including cistern as specified.	NO	575.00	
	s) White vitreous china long bath 1500mm x 750mm including 2 nos. chromium plated handles complete with wall mounted bath mixer, telephone hand shower set with flexible hose and wall brackets and 38mm chromium plated bath pop-up waste with overflow pipe and 'P' trap.	NO	1,398.00	
	t) 100mm Diameter chromium plated shower rose and arm with swivel joint complete with 13mm chrome plated stopcock.	NO	106.00	
	u) White vitreous china single urinal bowl as specified including automatic cistern and chrome plated sparge pipes.	NO	296.00	
	v) Ditto with (2) two bowls as specified.	NO	806.00	
	w) Ditto with (3) three bowls as specified.	NO	1,044.00	
	x) Vitreous china urinal division size 325mm x 600mm (approximately) complete with hangers or fixing screws.	NO	149.00	
	y) Concealed Flush Valve.	NO	231.50	
	z) Exposed Flush Valve.	NO	376.70	

GLAZIER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	4mm Thick clear sheet glass and glazing to wood or metal as specified.	M2	71.40	
2	5mm Ditto.	M2	76.30	
3	6mm Ditto.	M2	90.40	
4	4mm Thick clear sheet glass louvre blade 150mm wide as specified.	M	12.10	
5	5mm Ditto.	M	12.60	
6	6mm Ditto.	M	14.30	
7	4mm Thick clear float glass and glazing to wood or metal as specified.	M2	69.40	
8	5mm Ditto.	M2	87.50	
9	6mm Ditto.	M2	99.70	
10	4mm Thick clear float glass louvre blade 150mm wide as specified.	M	11.80	
11	5mm Ditto.	M	14.50	
12	6mm Ditto.	M	16.30	
13	4mm Thick obscured glass and glazing to wood or metal as specified.	M2	48.80	
14	5mm Ditto.	M2	54.20	
15	4mm Thick obscured glass louvre blade 150mm wide as specified.	M	8.70	
16	5mm Ditto.	M	9.50	
17	5mm Thick grey sheet glass and glazing to wood or metal as specified.	M2	95.30	
18	6mm Ditto.	M2	97.40	
19	5mm Thick grey sheet glass louvre blade 150mm wide as specified.	M	15.70	
20	6mm Ditto.	M	16.00	
21	5mm Thick dark grey float glass and glazing to wood or metal as specified.	M2	117.70	
22	6mm Ditto.	M2	118.90	
23	5mm Thick dark grey float glass louvre blade 150mm wide as specified.	M	19.00	
24	6mm Ditto.	M	19.20	
25	6mm Thick obscured wired glass and glazing to wood or metal as specified.	M2	209.00	
26	5mm Thick tinted glass and glazing to wood or metal as specified.	M2	71.50	
27	6mm Ditto.	M2	96.10	

PAINTER

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
1	Knot, prime, stop and paint one undercoat and two finishing coats of gloss enamel paint on woodwork.	M2	8.20	
2	Ditto on surfaces not exceeding 100mm girth.	M	1.40	
3	Ditto exceeding 100mm and not exceeding 200mm girth.	M	2.00	
4	Ditto exceeding 200mm and not exceeding 300mm girth.	M	3.00	
5	Clean down, prime and paint one undercoat and two coats of gloss enamel paint on metal surfaces generally as specified.	M2	8.30	
6	Ditto on surfaces not exceeding 100mm girth.	M	1.10	
7	Clean down, prime and paint one undercoat and two coats of gloss enamel paint on metal surfaces exceeding 100mm and not exceeding 200mm girth.	M	2.20	
8	Ditto exceeding 200mm and not exceeding 300mm girth.	M	3.00	
9	Clean down, prime and paint two coats of emulsion paint on walls and ceiling as specified.	M2	3.90	
10	Stain and wax polish to approval on timber surfaces as specified.	M2	8.20	
11	Ditto on surfaces not exceeding 100mm girth.	M	1.80	
12	Ditto exceeding 100mm and not exceeding 200mm girth.	M	2.30	
13	Ditto exceeding 200mm and not exceeding 300mm girth.	M	3.00	
14	Prepare and apply two coats of floor dressing on parquet or other timber flooring.	M2	6.30	
15	Wood preservative, two coats on timber as specified.	M2	4.50	
16	Prepare and apply two coats of acrylic co-polymer resin based paint ("Sandtex Matt" or equivalent) on walls and soffits.	M2	12.60	
17	Prepare, stain to approval and apply three coats of varnish on surfaces of woodwork.	M2	10.40	
18	Ditto on surfaces not exceeding 100mm girth.	M	1.70	
19	Ditto exceeding 100mm and not exceeding 200mm girth.	M	2.70	
20	Ditto exceeding 200mm and not exceeding 300mm girth.	M	3.50	
21	Prepare and apply two coats of flame retardant paint (up to 600 degrees) on metal surfaces.	M2	17.90	
22	Prepare and apply two coats of silicone-based water repellent solution on fair-face concrete and brickwork surfaces.	M2	8.90	

ROAD, CULVERT, FENCING, TURFING AND ROADSIDE DRAINS

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>ROADWORK</u>				
1	50mm Thick sand spread, levelled and compacted to falls and cambers with an 8-ton roller.	M2	4.80	
2	200mm (finished) Thick crusher run base course consisting of two layer of 125mm loose layers of crusher run as described spread and levelled and ditto.	M2	9.10	
3	300mm Thick crusher run spread, levelled and compacted to falls and cambers with an 8-ton roller.	M2	10.70	
4	87.50mm (finished) Thick layer of wearing course consisting of two layers as specified, the first layer 62mm thick made up to 37.50mm - 62.50mm aggregate and the 2nd layer 25.50mm thick made up of 25mm - 37.50mm aggregate, each layer spread and levelled and well rolled and compacted.	M2	13.00	
5	50mm Thick asphaltic concrete wearing course, spread, levelled and compacted to an even gradient and crossfalls with an approved roller.	M2	12.20	
6	40mm Ditto.	M2	11.70	
7	Apply one coat of 80/100 penetration bituminous binder seal as specified, at the rate of 4.08 litres per square meter on wearing course, including blinding with 19mm (nominal) aggregate and lightly rolled with 6-ton roller.	M2	10.90	
8	Ditto but at the rate of 1.36 litres per square meter ditto.	M2	5.40	
9	Provide and lay 37.50mm thick premix carpet course consisting of stones of maximum size 19mm and including a layer of bituminous emulsion tack coat applied at a rate of 0.435 litres per square meter.	M2	12.40	
10	Prepare and apply 2 coats approved road line paint as specified on premix road, 100mm wide.	M	55.40	
<u>ROAD KERB</u>				
11	300mm x 150mm x 600mm Precast reinforced concrete (1:2:4-20mm aggregate) as specified kerb finished fair on exposed surfaces, bedded, jointed and pointed in cement mortar (1:3) including all necessary excavation, formwork and painting as specified.	M	31.20	
12	300mm x 150mm x 600mm Ditto with scupper opening ditto.	M	43.00	
13	100mm x 300mm x 600mm Ditto with splayed top ditto.	M	23.80	
<u>CULVERT</u>				
14	Concrete (1:3:6 - 25mm to 38mm aggregate) in culvert base, surround etc.	M3	238.70	
15	Reinforced concrete (1:2:4 - 20mm aggregate) in culvert base, surround, head and wing walls.	M3	277.30	
16	Sawn formwork to culvert base, surround, head and wing walls.	M2	40.40	

ROAD, CULVERT, FENCING, TURFING AND ROADSIDE DRAINS.... (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>CULVERT (Cont'd)</u>				
17	450mm Diameter precast reinforced spun concrete pipe Class "S" and jointing with and including precast concrete collars in cement mortar (1:1) including forming fillet all round at each end of collars.	M	132.00	
18	600mm Ditto.	M	170.60	
19	750mm Ditto.	M	213.10	
20	900mm Ditto.	M	263.60	
21	1200mm Ditto	M	387.10	
22	600mm x 600mm Box culvert including excavation and backfilling with approved materials, handling, jointing, concrete bedding and everything necessary all in accordance with the Specification and as directed by the S.O.	M	640.10	
23	750mm x 600mm Ditto.	M	709.00	
24	900mm x 750mm Ditto.	M	806.80	
25	900mm x 900mm Ditto.	M	828.90	
26	1200mm x 1200mm Ditto.	M	1,110.50	
27	1500mm x 1200mm Ditto.	M	1,397.50	
<u>EXTERNAL WATER RETICULATION</u>				
28	100mm Diameter Mild steel (MS) pipe including fixing as specified.	M	88.70	
29	150mm Ditto.	M	96.30	
30	Mild steel (MS) pipe fittings as specified:-			
	a) 100mm Diameter bend.	NO	76.40	
	b) 150mm Ditto.	NO	84.30	
	c) 100mm Diameter for T junction.	NO	86.60	
	d) 150mm Ditto.	NO	94.60	
31	150mm Diameter UPVC pipe in class 'D' including fixing as specified.	M	81.90	
32	UPVC fittings as specified:-			
	a) 150mm Diameter bend.	NO	36.00	
	b) Ditto for T junction.	NO	8.30	

ROAD, CULVERT, FENCING, TURFING AND ROADSIDE DRAINS.... (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
	<u>EXTERNAL WATER RETICULATION (Cont'd)</u>			
33	100mm Diameter HDPE pipe grade PN10 including fixing as specified.	M	39.50	
34	150mm Ditto.	M	75.50	
35	HDPE pipe fittings as specified:-			
	a) 100mm Diameter 90 degree elbow.	NO	195.70	
	b) 150mm Ditto.	NO	456.30	
	c) 100mm Diameter equal tee.	NO	48.60	
	d) 150mm Ditto.	NO	81.60	
	e) 100mm Diameter 90 degree bend.	NO	42.80	
	f) 150mm Ditto.	NO	74.80	
	<u>HYDRANT & VALVES</u>			
36	Supply and install 100mm cast iron hydrant including ductfoot adaptor bent, short piece and all requisite bolts and base concrete and hydrant marker post.	NO	1,980.00	
37	<u>PRECAST CONCRETE MANHOLE</u>			
	a) Precast concrete manhole size 1500mm diameter as specified complete with and including HDPE Corrugated (Profiled) Double Wall Sewer, Brances and channels; ductile or cast iron heavy duty manholecover and frame; pit excavation commencing from formation level; disposal of surplus excavated materials; as per drawing nos.	NO	2,600.00	
	b) ditto 1200mm ditto	NO	2,500.00	
	<u>FENCING</u>			
38	Chain link fencing 1.50m high consisting of 50mm x 50mm x 6mm painted steel angle post at 3.00m centres with bottom end embedded in concrete (1:3:6 - 25mm aggregate) and with 50mm diamond mesh (No.10 S.W.G.) galvanised chain link fence, including three strands of No.8 galvanised straining wire and including 50mm x 50mm x 6m painted steel angle corner struts with bottom end embedded in and including concrete (1:3:6 - 25mm aggregate) base.	M	61.60	
39	Ditto 50mm diamond mesh (No.12 S.W.G.) ditto.	M	64.10	
40	Ditto 65mm diamond mesh (No.10 S.W.G.) ditto.	M	65.80	
41	Ditto 65mm diamond mesh (No.12 S.W.G.) ditto.	M	68.20	
42	Extra over last 4 items for chain link fencing 1.8m high having three (3) strands of two ply barb wire (13 gauge with 4 pointed barb at 75mm) on top.	M	15.60	

ROAD, CULVERT, FENCING, TURFING AND ROADSIDE DRAINS.... (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>FENCING (Cont'd)</u>				
43	PVC coated Chain link fencing 1.50m high consisting of 50mm x 50mm x 6mm painted mild steel angle post at 3.00m centres with bottom end embedded in concrete (1:3:6-25mm aggregate) and with 50mm diamond mesh (No. 10 S.W.G.) pvc coated chain link fence, including three strands of No. 8 galvanised straining wire and including 50mm x 50mm x 6mm painted mild steel angle corner struts with bottom end embedded in and including concrete (1:3:6-25mm aggregate) base.	M	61.30	
44	Mild steel double leaf gate size 4.90m wide x 1.50m high overall, each leaf comprising of 150mm wide frame constructed of 3mm thick mild steel plate welded to and including 2 No 25mm x 25mm x 3mm mild steel hollow section closed at ends with 6mm thick mild steel plate, top and bottom rails constructed of 2 No 3mm thick mild steel plate welded to and including 2 No 50mm x 25mm x 3mm thick mild steel hollow section closed at ends with 6mm thick mild steel plate, infilled with 20mm x 20mm mild steel hollow section vertical members at 125mm centres closed at ends with 6mm mild steel plate, with and including mild steel bolt and sleeve, lock plate, butt hinges, welding and painting.	NO	2,503.30	
45	Mild steel single leaf gate size 1.05m wide x 1.50m high ditto.	NO	633.30	
46	Mild steel sliding gate size 6.0m wide x 1.80m high, constructed of 100mm x 50mm mild steel hollow gate frame all around including intermediate framing to be welded together to infilled with 25mm x 25mm mild steel hollow at 150mm centres, fixing all members together, filling all welds smooth complete with sliding gate roller track and painting with one coat metallic primer and three coat alkali resin base paint or equivalent and approved and all necessary works for proper completion.	NO	2,881.90	
<u>TURFING</u>				
47	Spot turfing on level surfaces at 450mm centres in chequered pattern and including 50mm bed of black earth as specified.	M2	4.20	
48	Close turfing on level surfaces and including 50mm bed of black earth as specified.	M2	6.20	
49	Close turfing to banks on and including 50mm bed of black earth and pegging, all as specified.	M2	6.60	
50	Turfing for playing fields including site preparation, 100mm thick river sand, 100mm thick top soil, turfing with an average 50mm thick earth bed, compaction, watering, weed control, mowing and top dressing all as specified.	M2	10.00	
<u>ROADSIDE DRAINS</u>				
51	300mm x 300mm Precast reinforced concrete semi elliptical channel 75mm thick including all necessary excavation.	M	18.90	
52	375mm x 375mm Ditto.	M	24.60	
53	450mm x 450mm Ditto.	M	34.50	

ROAD, CULVERT, FENCING, TURFING AND ROADSIDE DRAINS.... (CONT'D)

Item No.	Description	Unit	Rate (RM)	Percentage(%) Increase/Decrease
<u>ROADSIDE DRAINS (Cont'd)</u>				
54	600mm x 600mm Ditto.	M	56.00	
55	50mm Thick precast concrete cover slab 300mm wide cast in approximately 600mm length, notched at ends and reinforced with and including one layer of 150mm (6G) x 150mm (6G) steel fabric reinforcement and placing in position.	M	14.30	
56	60mm Thick approved interlocking concrete paver block as specified, laid on and including 30mm thick sand and 60mm thick hardcore bed and all necessary excavation, all in accordance with the manufacturer's instruction and as specified.	M2	77.00	
57	80mm Ditto.	M2	80.20	
58	100mm Ditto.	M2	87.40	
<u>GABION</u>				
59	Supply and lay 2.0m x 1.0m x 1.0m PVC Coated wire mesh rock filled gabion	M3	345.10	
<u>MILD STEEL GRATING</u>				
60	230mm x 600mm Mild steel grating drain cover with welded connection, comprising 50mm x 50mm x 6mm thick angle all round, infilled with 40mm x 6mm thick flats at 30mm centres, painted with one coat red oxide primer; set in and including forming rebate at top of drain.	NO	47.80	
61	600mm x 600mm Ditto.	NO	115.40	
62	1200mm x 1200mm Ditto.	NO	444.30	
63	850mm x 850mm Mild steel grating as sump cover ditto.	NO	225.80	

DAYWORK RATES

Daywork rates will only be used as a basis for payment when normal rates for supply and fix (as given above) are not applicable. No work shall be carried out on Daywork basis except when ordered in writing by the Superintending Officer.

When work is so ordered, the Contractor shall be paid Daywork Prices plus 15%, which shall include for the use of all ordinary plant, tools, scaffolding, supervision, establishment charges and profit. Daywork prices shall be taken to mean the actual prime cost to the Contractor of his materials, transport and labour for the work concerned.

The Contractor shall produce for verification to the S.O. vouchers specifying the time and materials employed on the work. If required, the Contractor shall also produce his receipted bills and wages books in support of his accounts.

Where special mechanical plant is required for use on Daywork, the cost to be paid to the Contractor shall be subject to agreement by the S.O.

The cost of any materials supplied by Government for use on Daywork shall not be taken into account when calculating the amount on which the 15% addition is based.

Only time on work actually done will be allowed. A "Day" is considered to be normal working day of 8 hours. Fractions of a day will be paid for "pro-rata".

Rates for power-driven tools are not included in the labour rates but charges for hand tools shall be deemed to be included.

No.	Description	Unit	Rate RM	Percentage Increase/ Decrease
1	Labourer (Unskilled)	Day	60	
2	Drainlayer	Day	80	
3	Concrete Leveller and Screeder	Day	85	
4	Mason	Day	85	
5	Bricklayer	Day	85	
6	Carpenter and Joiner	Day	90	
7	Steel Barbender and Fixer	Day	90	
8	Pneumatic Tool Operator	Day	90	
9	Fitter	Day	90	
10	Welder	Day	95	
11	Plumber	Day	90	
12	Painter	Day	85	
13	Roofer	Day	90	
14	Glazier	Day	90	
15	Ironworker	Day	90	
16	Pavior/Plasterer	Day	90	
17	Tile Fixer	Day	100	
18	Watchman	Day	70	

The foregoing Schedule of Rates and percentage increase or decrease and Daywork Labour Rates as set down by the successful tenderer have been scrutinised and agreed to by me as reasonable.

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(Superintending Officer)

Date :



JKR Malaysia
Jalan Sultan Salahuddin
50580 Kuala Lumpur