

SCHEDULE OF RATES FOR BUILDING WORKS IN SARAWAK 2022



*JKR Sarawak
December 2022*

Notes to tenderers:

1. This is only a cover page for this document. Please obtain the full set from the JKR Sarawak webpage.
2. The "Location Factor From Base at Kuching City" for this tender is _ % and is the percentage over all the items and rates as listed in this Schedule of Rates to be used for the purposes as stated in the tender documents.
3. **Any attempt to amend / change / correct etc. this percentage by the tenderer shall cause the tender to be disqualified.**

LOCATION FACTOR FROM BASE AT KUCHING CITY

(To be read together with the Rules of Determining the Location Factor)

Kuching	City	0%
	Padawan	2%
	Santubong	3%
	Bau	5%
	Lundu	8%
	Sematan	9%

Serian	District	5%
	Tebedu	8%
	Siburan	3%
	Tebakang	8%
	Balai Ringin	8%

Samarahan	District	2%
	Simunjan	12%
	Sebuyau	15%
	Asajaya	10%
	Sadong Jaya	12%

Sri Aman	District	15%
	Lubok Antu	20%
	Lingga	20%
	Pantu	20%
	Engkilili	18%
	Skrang	20%

Betong	District	20%
	Spaoh	20%
	Debak	20%
	Pusa	21%
	Beladin	20%
	Maludam	22%
	Saratok	20%
	Roban	20%
	Kabong	20%

Sarikei	District	18%
	Bintangor	18%
	Pakan	20%
	Selalang	20%
	Julau	20%
	Meluan	22%
	Ulu Entabai	40%
	Engkamop	25%
	Nanga Wak	15%
Nanga Entabai	14%	

Sibu	District	12%
	Kem Bt. 10 & 14	13%
	Durin	15%
	Bawang Assan	13%
	Sungai Assan	13%
	Kanowit	16%
	Machan	16%
	Nibong Tada	15%
	Nanga Tada	17%
	Nanga Dap	20%
	Nanga Ngemah	20%
	Nanga Ngungun	20%
	Nanga Poi	22%
	Nanga Jagau	40%
	Selangau	18%
	Ulu Balingian	20%
Arip	22%	
Stapang	16%	
Rassau	22%	

LOCATION FACTOR FROM BASE AT KUCHING CITY

(To be read together with the Rules of Determining the Location Factor)

Mukah	District	20%
	Dalat	20%
	Oya	20%
	Igan	18%
	Balingian	23%
	Kuala Balingian	23%
	Semop	30%
	Matu	25%
	Betanak	30%
	Daro	25%
	Bruit	30%
	Tanjung Manis	18%

Bintulu	District	15%
	Tatau	20%
	Sebauh	23%

Miri	City	15%
	Subis	20%
	Bekenu	15%
	Marudi	25%
	Long Lama	40%
	Beluru	22%

Limbang	District	30%
	Lawas	28%

Kapit	District	30%
	Song	25%
	Belaga	70%
	Sungai Asap	25%
	Bukit Mabong	40%

RULES OF DETERMINING THE LOCATION FACTOR

1. The percentage (%) factors as stated are for those projects accessible by motorized vehicles within fifteen kilometres (15 km) radius from the location shown.
2. Where the project site is beyond fifteen kilometres (15 km) radius of the above stated locations, these additional percentage (%) factors shall be added on to those percentages stated above:

Item	Radius	Percentage (%) Addition
(i)	> 15 km to < 45 km	5%
(ii)	> 45 km to < 90 km	10%
(iii)	> 90 km to < 135 km	15%
(iv)	> 135 km to < 180 km	20%
(v)	> 180 km to < 220 km	25%

3. Where the project sites are accessible only by waterway:

Item	Radius	Percentage (%) Addition
(i)	areas within 15 km radius	0%
(ii)	areas within 30 km radius	5%
(iii)	areas within 60 km radius	10%
(iv)	areas within 90 km radius	15%
(v)	areas within 120 km radius	20%
(vi)	areas within 150 km radius	25%

4. Where the project sites can only be accessible by air, the location factor shall be doubled over the value obtained from that by motorized vehicles.
5. Where the project sites can only be accessible by foot, the location factor shall be fifty percent (50%) over the value obtained from that by motorized vehicles.
6. Where in determining the locations factor and two or more factors and radial distances are equally applicable, the lower in each case shall be used.
7. Where in determining the location factor and two or more factors and radial distances by the rules above whereby there can be a combination due to accessibility, say partly land and partly waterway or partly waterway and partly by foot, there shall be a combination of the rules according to the radial distance from the nearest locations stated above.
8. Where in determining the location factor and the site for the project lies within two radial distances, the additional percentage (%) for the radial distance within which more than fifty percent (50%) of the Site lies shall be used.

PREAMBLES

1. All rates shall be used and read together with the “Location Factor From Base at Kuching City”.
2. All rates herein have reasonably taken into account anticipated and calculated inflation and risk factors for the next two (2) years from the date of publication.
3. All descriptions are to be read with reference to the General Specification for Building Works (Latest Version) and the following:

(A) Piling

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.

(B) Site Clearance And Earthwork

All rates herein shall be held to include for supply and delivery to site, wastage 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 custom duties, etc.) for the proper completion of each item and for establishment charges and profit.

Rates for site clearance shall include:

- (a) Clearing all general vegetation, tall grass, thatch grass, creepers, shrubs, bushes and all undergrowth.
- (b) Felling of trees of all sizes including cutting, grubbing up their stumps and roots and disposes off site.
- (c) Clearing all rubbish, debris and unwanted materials.
- (d) Breaking up and removing disused structures, surface beds and pavings, sewers, drains and drain pipes, manholes, underground wells, sumps, fencing, posts, retaining walls and other such like structures, including disconnecting and sealing off services, plugging any pipes cut off at perimeter of site.
- (e) Removing existing tree stumps and grubbing up their roots and disposal off site.
- (f) Filling holes and voids caused by removal of trees, tree stumps, roots, existing structures or obstructions with hardcore or suitable approved materials.

(C) Excavation

Excavation shall be measured to commence at existing ground level. All excavation and filling shall be measured nett. The quantities of excavation and filling shall be measured on the assumption that the gradient of the existing surfaces between the nearest adjacent spot levels and / or between contours is constant. Boulders not exceeding one cubic metre shall be deemed to be included in the rates for excavation.

Rates for excavation (including excavation of drainage) are to include:

- (a) Keeping all excavations free from water, mud, etc. by pumping or bailing if required
- (b) Planking and strutting, leveling, ramming or preparing bottoms, any double handling required and for additional excavation for planking, strutting and formwork
- (c) Excavating by hand or mechanical means in various soil strata and water tables
- (d) Multiple handling
- (e) Protection of all services encountered
- (f) Additional excavation and backfilling due to Contractor's method or process such as excavation for working space
- (g) Reinstating to original condition all work disturbed by excavation
- (h) Additional concrete infill where excavated below correct levels
- (i) Giving all required notice
- (j) To ensure safety of excavation and adjoining structures.

(D) Concrete Work

No allowance shall be made in the weight of steel reinforcement for rolling margin, trying wires, spacers, chairs and weight of weld etc. Concrete shall be measured nett without deduction for the volume of reinforcement.

Rates for concrete shall be held to include:

- (a) Forming, leaving or cutting grooves, chases, mortices, holes
- (b) Making good and any sundry items of alike nature
- (c) Providing trial mixes, tests on materials and finished product, including non destructive test on and off-site
- (d) Hoisting or pumping or placing in position
- (e) Compacting by suitable means
- (f) Laying in bays and associated works
- (g) Curing and protection.

Rates for precast concrete work shall include:

- (a) All reinforcement and moulds
- (b) Lifting hooks, cast-in brackets, dowels and their fixing devices
- (c) Finishing fair on all exposed faces, and other surface treatment to receive other finishes
- (d) Holes, sleeve, rates, notchings, sinkings, mortices and the like
- (e) Temporary supports
- (f) Hoisting and placing in position; setting, bedding, jointing and pointing in cement mortar; cutting off lifting hooks.

Rates for bar reinforcement shall include:

- (a) Allowance for rolling margin and weight of welds
- (b) Cleaning by wire brushing or sand blasting
- (c) Cutting to length and fabricating including bending to various bend and radii
- (d) Providing and tying with galvanized steel wire at all intersections
- (e) Providing seating or spacer blocks and chairs
- (f) Providing all necessary laps and anchorages
- (g) Submitting manufacturers' mill and test certificate.

Rates for fabric reinforcement shall include:

- (a) Allowance for rolling margin and weight of welds
- (b) Cleaning by wire brushing or sand blasting
- (c) Cutting to length and fabricating including bending to various bend and radii
- (d) Providing and tying with galvanized steel wire at all intersections
- (e) Providing seating or spacer blocks and chairs
- (f) Providing all necessary laps and anchorages
- (g) Submitting manufacturers' mill and test certificate
- (h) Straight, circular or raking cutting and notching.

"Sawn formwork" shall mean formwork to produce concrete surfaces suitable for plastering or tiling. "Wrot formwork" shall mean formwork to produce fair face concrete surfaces suitable for direct application of decorations. Formwork shall be deducted for openings over one square metres.

Rates for formwork shall be held to include:

- (a) For erection, raking and circular cutting, splayed edges, notchings,
- (b) Allowance for overlaps and passing at angles, battens, strutting, bolting, wedging,
- (c) Easing, striking and removal.
- (d) Batten framing
- (e) Stopping all holes, cracks and crevices
- (f) Mould oil

(E) **Brickwork and Blockwork**

Rates for brickwork and blockwork shall be held to include:

- (a) For all rough and fair cutting,
- (b) Oversailing and receding courses
- (c) Rough relieving and discharging arches
- (d) Wedging and pinning
- (e) Raking out joints for and pointing flashings
- (f) Bedding plates
- (g) Bedding and pointing frames
- (h) Parging and coring flues
- (i) Labour eaves filling
- (j) Plumbing angles
- (k) Forming square and rebated reveals, cut squints or bird-mouths, notches
- (l) Forming, leaving or cutting chases, holes and mortices
- (m) Cutting and pinning
- (n) Making good any other sundry items of alike nature

- (o) All staging working platform
- (p) Wetting bricks and blocks before laying
- (q) Reinforcement and bonding tie
- (r) Raking out joints for flashings, roof coverings, etc. and pointing with mortar
- (s) Forming and pinning and / or building in frames, lintels, plugs, bolts, anchors, metal window and doors, etc.
- (t) Forming opening in walls for building in air-brick, ventilation grating and the like
- (u) All necessary templates for curved or circular work
- (v) Filling ends of hollow blocks or providing special blocks with solid ends all special make blocks
- (w) Cleaning down exposed faces
- (x) Sundry items of a like nature

Rates for facing brickwork shall further include for pointing, opening and closing perpends, cutting with mechanical saws and providing sample panels as directed by the S.O.

Rates for new brickwork and blockwork to existing structures shall further include for hacking up and preparing existing floor, wall and ceiling finishes to receive new work, cutting and pinning ends to existing brickwork or blockwork or concrete and any sundry items of a like nature and for making good all work disturbed to match existing.

Rates for damp proof course shall include all laps, angles, waste cutting, labour and materials required in laying and pointing exposed edges.

(F) Roofing

All roofing tiles and decking, sisalation, waterproofing works and the like shall be measured nett.

Rates for roofing tiles and decking shall include:

- (a) End laps and side laps.
- (b) All straight, skew and circular cutting at eaves, verges, top edges, abutments, valleys, hips and the like.
- (c) Forming holes for pipes and the like.
- (d) Cranks and upstands.
- (e) Bedding and pointing eaves filler-pieces, verges and the like.
- (f) Narrow width and small quantities.
- (g) Use of recommended fasteners, washers and any items used to prevent electrolysis corrosion.
- (h) Fixing with screws, nails, straps, bracket, etc. in accordance with the manufacturer's instructions.
- (i) Cement grout and cement slurry, adhesive, removing paper backing, cleaning and pointing (including material) joints to match colour of the tiles.
- (j) Mastic pointing, dividing strips, etc and testing against leaks.
- (k) Bedding and pointing of valley tiles, ridges-tiles, hip tiles and vertical angle-tiles with cement mortar.

- (l) Bending edges up or down at ridge and gutter, etc.
- (m) Notching and bending edges of hips and ridge capping and the like to match roofing profile.
- (n) Painting all screw caps, bolts, nail head, washer, straps, bracket etc with matching anti-corrosive paint.
- (o) Providing warranty or guarantee as specified.

Rates for prefabricated membrane and built-up roofing systems shall include:

- (a) Laps and joints, including bonding adhesives, reinforcement mats and strips etc.
- (b) Narrow widths.
- (c) Protection.
- (d) Surface treatment and preparation.
- (e) Provide warranty or guarantee as specified.
- (f) Forming arises, fair edges, butt joints, etc.
- (g) Fitting and sealing around inlets, outlets, projections and the like.
- (h) Test on joint and water ponding test.

Rates for flashing, gutter, capping and the like shall include:

- (a) Laps, passings in the running lengths, turning up and down of edges, fixing and pointing.
- (b) Forming all angles, ends, outlets and any other sundry items of a like nature.
- (c) Brackets, straps, hangers and other necessary fixings.

(G) Carpentry and Ironmongery

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.

Rates for carpentry timber shall include:

- (a) Short length and small quantities.
- (b) Cutting, notching, boring, sinking, pelleting, mitering, halving, morticing, tenoning, dove-tailing and scarfing.
- (c) Temporary supports.
- (d) Fixing with screws, nails, fastening devices, pin, puttying, glue, etc
- (e) Sundries items of a like nature.

Rates for dry lining and partition shall include:

- (a) Short length, narrow widths, small quantities and irregular shaped.
- (b) Cutting and boring holes for pipes, services fittings etc and make good.
- (c) Protection and cleaning on completion.
- (d) All fastening devices.
- (e) Setting out panels to form equal margins on all sides.
- (f) Frame.
- (g) Submission of shop drawings.

Rates for insulating board, woodwool board and other building boards shall include:

- (a) Narrow width and small quantities.
- (b) Cutting and boring holes for pipes, etc.
- (c) Protection and cleaning on completion.

Rates for building board and ceiling boarding shall include:

- (a) All fastening devices.
- (b) Narrow width and small quantities.
- (c) Cutting openings for services fittings and making good.

Rates for fire rated doors shall include:

- (a) Door leaf
- (b) Intumescent strips let into grooves around the door.
- (c) BOMBA certification.
- (d) Glazing and vision panel.
- (e) Door frame, beading, architrave and packing piece.
- (f) Filling voids between framing and brickwall or concrete walls with approved materials as deemed necessary by the Architect/Engineer.
- (g) Apply one coat of aluminium wood primer to back of door frame before fixing.
- (h) Apply two coats of approved wood preservative to packing piece.
- (i) Heel stone, dowel and holdfast

Rates for non-fire rated doors shall include:

- (a) Door leaf
- (b) Glazing, vision panel, side and overhead glazed and louvred panel.

Rates for door frame to non-fire rated doors shall include:

- (a) Door frame, framing to all side and overhead glazed and louvre panels, beading, architrave and packing piece.
- (b) Filling voids between framing and brickwall or concrete walls with approved materials as deemed necessary by the Architect/Engineer.
- (c) Apply one coat of aluminium wood primer to back of door frame before fixing.
- (d) Apply two coats of approved wood preservative to packing piece.
- (e) Heel stone, dowel and holdfast.

Rates for glazed doors and windows shall include glazing beads loosely pinned to glazed openings for subsequent fixing.

Rates for ironmongery shall include:

- (a) Matching screw.
- (b) Cutting, sinking, boring and morticing.
- (c) Oiling, easing and adjusting all movable parts.
- (d) Taking out and refixing after painting as directed.
- (e) Marking, labeling and handing over keys.

(H) Plastering, Paving and Tiling

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.

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.

Rates for plastering, rendering etc. shall include for raking out joints of brickwork, blockwork and masonry or hacking concrete as key.

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 angels, 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.

Rates for plastering shall include:

- (a) Narrow widths and small quantities.
- (b) Temporary rules and templates.
- (c) Cleaning, keying and slurring to base.
- (d) Jointing between different types of finishes and between old and new finishes.
- (e) Groin points and other intersections of curved surfaces.
- (f) All other sundry items of a like nature.
- (g) "Exmet" or other approved wire mesh as "key" for plaster at junction between concrete and brickwork/timber and the like.
- (h) Mock-up sample.

Rates for wall tiling shall include:

- (a) All round edges and arrises.
- (b) Narrow widths and small quantities.
- (c) Temporary rules and templates.
- (d) Backing screed.
- (e) Soaking tiles in waters before laying.
- (f) Cleaning, keying and slurring to base.
- (g) Notching, raking and curved cutting.
- (h) Jointing between different types of finishes and between old and new finishes.
- (i) Groin points and other intersections of curved surfaces.
- (j) Joint filler and joint grout/sealant.
- (k) Laying to selected pattern.
- (l) Mock-up sample.
- (m) Proprietary fixing adhesives.
- (n) All other sundry items of a like nature.

Rates for slab and block finishes to walls shall include:

- (a) Cutting and drilling of fixing slits and holes
- (b) Chamfers, splays, rebates, grooves, etc. including polished exposed edges.
- (c) Notching, raking and curved cutting.
- (d) Rules, spacer or distance blocks.
- (e) Hooks, brackets, straps and other fixing accessories.
- (f) Proprietary fixing adhesive.

- (g) Joint filler and joint grout/sealants.
- (h) Cleaning.
- (i) Mock-up sample and dry laying.
- (j) All other sundry items of a like nature.

Rates for floor tiling and paving shall include:

- (a) All round edges, internal and external angles, and arrises.
- (b) Narrow widths and small quantities.
- (c) Temporary rules and templates.
- (d) Cleaning, keying and slurring to base.
- (e) Notching, throating, forming holes, and splay, raking and curved cutting.
- (f) Jointing between different types of finishes and between old and new finishes.
- (g) Groin points and other intersections of curved surfaces.
- (h) Screeding.
- (i) Anchorages, fixing accessories on, for securing to floor or wall.
- (j) Laying flat or to slopes and falls.
- (k) Joint filler and joint grout/sealant.
- (l) Proprietary fixing adhesives.
- (m) Mock-up sample and laying to selected pattern.
- (n) Cleaning, protecting and polishing on completion and before handing over.
- (o) All other sundry items of a like nature.

(l) Structural Steel Work and Metal Work

Rates for structural steelwork and metal work shall include:

- (a) Weight of welded metal and rolling margin.
- (b) All straight, raking, bevel and play cutting and notching.
- (c) All shop and site welding, drilling, holes and openings (no deduction in weight shall be made for same) including those required for other trades.
- (d) Marking, hoisting and erecting temporary braces and support.
- (e) Filing smooth welds exposed to weld.
- (f) All fixing accessories and grouting.
- (g) Preparing and priming with approved painting system.
- (h) Preparation and submission of shop drawings.
- (i) Testing.

Rates for metal suspended ceiling frame work shall include:

- (a) All suspended accessories.
- (b) Edge trims.
- (c) Trimmer bars for lighting air-conditioning grilles, speakers, etc.
- (d) Preparation and submission of shop drawings.

Rates for aluminium framed doors and windows shall include:

- (a) Labour and material for the completion installation of the framed doors and windows.
- (b) Neoprene friction seal, compression seal, hardwares, fixing accessories, cement filleting around frame and sealant pointing.
- (c) Structural stiffener and lintel.
- (d) Holdfast and ironmongery.
- (e) Protection and cleaning.
- (f) Preparation and submission of shop drawing.
- (g) Sample, mock-up unit and testing.

Rates for mild steel tubing are to include for short running lengths, sockets, backnuts, elbows and bends.

(J) **Plumbing**

Rates for pipework shall include:

- (a) Short lengths.
- (b) Running joints and sockets.
- (c) Made bends.
- (d) Bends, tees, reducers, end caps and the like fittings.
- (e) Fixing brackets and clips.
- (f) Forming perforations, holes, etc in walls and slabs and providing sleeves.
- (g) Chasing in walls and slabs.

Rates for sanitary fittings shall include:

- (a) All fixings and jointing to services.
- (b) Brackets and all other necessary accessories for the complete functioning of the fitting.
- (c) Submit sample.
- (d) Protecting and cleaning on completion.

(K) **Glazing**

Rates for glazing shall include:

- (a) Setting blocks, distance pieces and like accessories for fixing.
- (b) Drilling fixing holes and the like in glass.
- (c) Cleaning off protective wax or tape in glazing rebates.
- (d) Gasket and glazing compounds.
- (e) Polishing and grinding of edges.
- (f) Additional costs involved in using sheets which are larger than the manufacturer's standard stock size.
- (g) Cleaning.

(L) **Painting**

Rates for painting shall include:

- (a) Preparatory work such as cleaning, rubbing down, knotting, filling, stopping and the like.
- (b) Rubbing down between coats.
- (c) Cutting all edges to line.
- (d) Painting all tracks, wall hooks, holderbats, brackets, ears and the like for pipework and gutters.
- (e) The use of different colours to walls, ceilings, doors, frames and the like in accordance with the Architect's colour scheme.
- (f) Scaffolding and staging.
- (g) Provide warranty / guarantee as specified.

(M) **Drainage**

Rates for surface water drainage and culvert shall include:

- (a) Setting out.
- (b) All short lengths.
- (c) Jointing and bedding and making smooth running joints.
- (d) Cutting culvert pipes for chamfers, ends, junction and for jointing.
- (e) Additional beds and surrounds at junctions, beds, ends, etc.
- (f) Laying to falls.
- (g) Cement rendering.
- (h) Forming angles, ends, outlets, junctions, connecting to sumps, drains, etc.

Rates for pipework for soil drainage shall include:

- (a) Running joints, short lengths, support, saddles, sling, fixing bolts and foundation bolts.
- (b) Site and laboratory test on material and provide test certificates.
- (c) Temporary stoppers or plugs.
- (d) Purpose made brackets and hangers.
- (e) Provide and building in all sleeves.
- (f) Cleaning out interior of pipes.
- (g) Preparing ends of pipes for pipe joints and jointing.
- (h) Cutting pipe for chamfers, bends, junctions and for jointing, etc.
- (i) Mechanical and flexible coupling.
- (j) External protection to flanged joints and flexible couplings.

Rates for pipework and fire hydrants for water reticulations system shall include:

- (a) Running joints, deflecting joints, short lengths, support, saddles, sling, fixing bolts and foundation bolts.
- (b) Site and laboratory test on material and provide test certificates.
- (c) Cleaning out interior of pipes.
- (d) Preparing ends of pipes for pipe joints and jointing.
- (e) Cutting pipe for chamfers, bends, junctions and for jointing, etc.
- (f) Mechanical and flexible coupling.
- (g) External protection to flanged joints and flexible couplings.
- (h) Painting all uncoated surfaces of pipework, valves and fittings.
- (i) Flushing, testing and commissioning of pipelines.

Rates for valves, hydrants and the like specials are to include for all components pipes necessary for the complete installation including all fixing accessories and extra joints to pipes.

(N) **Bituminous Road and Hardstandings**

Rates for site surface water drainage and culvert shall include:

- (a) Sampling and testing of aggregates and bituminous mixtures as specified.
- (b) Protecting mixed material in transit and while awaiting tripping.
- (c) Laying, rolling and consolidating sub-base, base course, binder and wearing course in layers or sequence as required.
- (d) Laying by hand of narrow strips remaining alongside machine work.
- (e) Making joints, working around manhole covers and other like projections.
- (f) Finishing surfaces to gradient and falls.

- g) Added filler to bituminous mixture.
- h) Maintenance of surface as work progress.

(O) Gabion Work

Rates for gabion work shall include:

- (a) Excavation and disposal of excavated material off site to Contractor's own dump.
- (b) Dewatering, upholding the sides of excavation and keeping the excavation free of water.
- (c) Trimming and leveling at founding / base level.
- (d) Cage and tying wire.
- (e) Filling material.
- (f) Transport, handling, assembling, tying, fixing, staking, tensioning and placing in dry condition and / or under water.

(P) Turfing and Tree Planting

Rates for seeding and turfing shall include:

- (a) Carry out the work in such sequence or section as directed.
- (b) Preparatory work in forking and loosening ground surface including riding all weed, roots and debris.
- (c) Dressing with fertilizer, tending, watering, covering with wet sacking, moving and protection of newly seeded / turfed area.
- (d) Maintenance.

Rates for tree planting shall include:

- (a) Carry out the work in such sequence or section as directed.
- (b) Selection and tagging of plant material.
- (c) Planting operation including excavation for rootball, top soil, refilling, support and ties.
- (d) Irrigation, pruning and trimming.
- (e) Plant replacement.
- (f) Spraying or other disease control operation.
- (g) Protection.
- (h) Maintenance.

A PILING

Item No.	Description	Unit	Rate (RM)
	Precast Concrete Piles		
1	Supply, handle & pitch 150mm x 150mm initial/head pile 6.00m long with x-pointed shoe.	M	44.80
2	Supply, handle & pitch 150mm x 150mm extension pile 6.00m long.	M	39.40
3	Supply, handle & pitch 200mm x 200mm initial/head pile 6.00m long with x-pointed shoe.	M	81.30
4	Supply, handle & pitch 200mm x 200mm extension pile 6.00m long.	M	79.70
5	Supply, handle & pitch 250mm x 250mm initial/head pile 6.00m long with x-pointed shoe.	M	132.80
6	Ditto 9.00m long.	M	114.20
7	Ditto 12.00m long.	M	107.80
8	Supply, handle & pitch 250mm x 250mm extension pile 6.00m long.	M	121.60
9	Ditto 9.00m long.	M	109.80
10	Ditto 12.00m long.	M	104.50
11	Supply, handle and pitch 300mm x 300mm initial/head pile 6.00m long with x-pointed shoe.	M	207.00
12	Ditto 9.00m long.	M	190.40
13	Ditto 12.00m long.	M	175.00
14	Supply, handle and pitch 300mm x 300mm extension pile 6.00m long.	M	197.60
15	Ditto 9.00m long.	M	177.60
16	Ditto 12.00m long.	M	164.30
17	Supply, handle and pitch 350mm x 350mm initial/head pile 6.00m long with x-pointed shoe.	M	285.10
18	Ditto 9.00m long.	M	248.90
19	Ditto 12.00m long.	M	296.80
20	Supply, handle and pitch 350mm x 350mm extension pile 6.00m long.	M	273.50
21	Ditto 9.00m long.	M	241.10
22	Ditto 12.00m long.	M	225.10
23	Supply, handle and pitch 400mm x 400mm initial/head pile 6.00m long with x-pointed shoe.	M	342.80
24	Ditto 9.00m long.	M	304.90
25	Ditto 12.00m long.	M	296.80
26	Supply, handle and pitch 400mm x 400mm extension pile 6.00m long.	M	328.80
27	Ditto 9.00m long.	M	295.60
28	Ditto 12.00m long.	M	289.50

A PILING

Item No.	Description	Unit	Rate (RM)
	Precast Concrete Piles (cont'd)		
29	Drive to set 150mm x 150mm pile.	M	7.40
30	Ditto 200mm x 200mm pile.	M	8.40
31	Ditto 250mm x 250mm pile.	M	11.30
32	Ditto 300mm x 300mm pile.	M	13.90
33	Ditto 350mm x 350mm pile.	M	18.80
34	Ditto 400mm x 400mm pile.	M	25.00
35	Drive to set 150mm x 150mm pile as raker piles.	M	15.20
36	Ditto 200mm x 200mm pile.	M	18.80
37	Ditto 250mm x 250mm pile.	M	22.80
38	Ditto 300mm x 300mm pile.	M	26.80
39	Ditto 350mm x 350mm pile.	M	31.50
40	Ditto 400mm x 400mm pile.	M	35.60
41	Butt weld connection 0.60m girth between edges of and including mild steel extension head, base cap plates, bars etc and including coated heavily with bituminous compound for jointing 150mm x 150mm R.C piles.	NO	30.00
42	Ditto for jointing 200mm x 200mm R.C piles.	NO	45.00
43	Ditto for jointing 250mm x 250mm R.C piles.	NO	60.00
44	Ditto for jointing 300mm x 300mm R.C piles.	NO	75.00
45	Ditto for jointing 350mm x 350mm R.C piles.	NO	90.00
46	Ditto for jointing 400mm x 400mm R.C piles.	NO	105.00
47	Cut off and dump away surplus length of 150mm x 150mm precast concrete pile and strip off pile head, bend back reinforcement for connection as specified.	NO	17.40
48	Ditto 200mm x 200mm ditto.	NO	25.00
49	Ditto 250mm x 250mm ditto.	NO	31.20
50	Ditto 300mm x 300mm ditto.	NO	37.40
51	Ditto 350mm x 350mm ditto.	NO	43.70
52	Ditto 400mm x 400mm ditto.	NO	49.90
53	Provide all equipment, hydraulic jack, deflection gauges, kentledge, temporary staging, etc. and test a test pile of any size to a vertical load test including all extra cost before commencement of the main piling works complete with report.	Tonne	200.00

A PILING

Item No.	Description	Unit	Rate (RM)
	Precast Concrete Spun Piles		
54	Supply, handle & pitch 250mm diameter initial/ head pile 6.00m long (Class B).	M	87.80
55	Ditto 9.00m long.	M	77.60
56	Ditto 12.00m long.	M	72.70
57	Supply, handle & pitch 250mm diameter extension pile 6.00m long (Class B).	M	82.40
58	Ditto 9.00m long.	M	74.30
59	Ditto 12.00m long.	M	70.20
60	Supply, handle & pitch 300mm diameter initial/head pile 6.00m long (Class B).	M	110.30
61	Ditto 9.00m long.	M	100.10
62	Ditto 12.00m long.	M	95.00
63	Supply, handle & pitch 300mm diameter extension pile 6.00m long (Class B).	M	104.00
64	Ditto 9.00m long.	M	95.90
65	Ditto 12.00m long.	M	91.80
66	Supply, handle & pitch 350mm diameter initial/head pile 6.00m long (Class B).	M	145.80
67	Ditto 9.00m long.	M	128.40
68	Ditto 12.00m long.	M	120.40
69	Supply, handle & pitch 350mm diameter extension pile 6.00m long (Class B).	M	135.00
70	Ditto 9.00m long.	M	122.90
71	Ditto 12.00m long.	M	116.10
72	Supply, handle & pitch 400mm diameter initial/head pile 6.00m long (Class B).	M	192.90
73	Ditto 9.00m long.	M	161.10
74	Ditto 12.00m long.	M	147.10
75	Supply, handle & pitch 400mm diameter extension pile 6.00m long (Class B).	M	168.80
76	Ditto 9.00m long.	M	153.90
77	Ditto 12.00m long.	M	141.70
78	Supply, handle & pitch 450mm diameter initial/head pile 6.00m long (Class B).	M	201.80
79	Ditto 9.00m long.	M	180.90
80	Ditto 12.00m long.	M	170.40
81	Supply, handle & pitch 450mm diameter extension pile 6.00m long (Class B).	M	187.70
82	Ditto 9.00m long.	M	171.50
83	Ditto 12.00m long.	M	163.40

A PILING

Item No.	Description	Unit	Rate (RM)
	Precast Concrete Spun Piles (cont'd)		
84	Supply, handle & pitch 600mm diameter initial/head pile 6.00m long (Class B).	M	330.80
85	Ditto 9.00m long.	M	297.90
86	Ditto 12.00m long.	M	280.80
87	Supply, handle & pitch 600mm diameter extension pile 6.00m long (Class B).	M	309.20
88	Ditto 9.00m long.	M	283.50
89	Ditto 12.00m long.	M	270.00
90	Drive 250mm diameter pile.	M	20.00
91	Ditto 300mm ditto.	M	22.60
92	Ditto 350mm ditto.	M	37.50
93	Ditto 400mm ditto.	M	43.70
94	Ditto 450mm ditto.	M	56.20
95	Ditto 600mm ditto.	M	62.40
96	Drive 250mm diameter pile as raker pile.	M	25.90
97	Ditto 300mm ditto.	M	29.20
98	Ditto 350mm ditto.	M	48.70
99	Ditto 400mm ditto.	M	56.80
100	Ditto 450mm ditto.	M	72.90
101	Ditto 600mm ditto.	M	81.10
102	Butt weld connection 0.8m girth between edges of mild steel extension head and base cap plates including coated heavily with bituminous compound (for 250mm diameter Spun piles).	NO	124.60
103	Ditto 300mm diameter Spun piles.	NO	149.50
104	Ditto 350mm diameter Spun piles.	NO	186.90
105	Ditto 400mm diameter Spun piles.	NO	224.30
106	Ditto 450mm diameter Spun piles.	NO	274.10
107	Ditto 600mm diameter Spun piles.	NO	348.70
108	Cut off 250mm diameter precast concrete spun pile to the required level and roughen the inner surface to detail.	NO	42.00
109	Ditto 300mm diameter ditto.	NO	48.30
110	Ditto 350mm diameter ditto.	NO	54.60
111	Ditto 400mm diameter ditto.	NO	60.90

A PILING

Item No.	Description	Unit	Rate (RM)
	Precast Concrete Spun Piles (cont'd)		
112	Ditto 450mm diameter ditto.	NO	67.20
113	Ditto 600mm diameter ditto.	NO	93.50
114	Supply and install 12mm diameter high yield steel reinforcement in pile head to detail.	KG	5.00
115	Ditto 16mm diameter ditto.	KG	4.90
116	Provide and weld 6mm thick mild steel plates to detail for 250mm diameter piles.	NO	42.00
117	Ditto 300mm diameter piles.	NO	50.40
118	Ditto 350mm diameter piles.	NO	63.00
119	Ditto 400mm diameter piles.	NO	71.40
120	Ditto 450mm diameter piles.	NO	84.00
121	Ditto 600mm diameter piles.	NO	105.00
122	Supply, place and compact grade 30/20 concrete in pile hollow section as specified.	M ³	414.80
123	Provide all equipment, hydraulic jack, deflection gauges, kentledge, temporary staging, etc. and test a test pile of any size to a vertical load test including all extra cost before commencement of the main piling works.	Tonne	200.00
	Micro Pile (300mm diameter)		
124	Augering / boring / coring vertical piles shaft through whatever soil strata and underground obstruction other than rock: including provision for SPT tests to determine rock material, temporary casing and approved stabilising slurry; remove all spoils and debris from site.	M	220.00
125	Augering / boring / coring raked piles shaft through whatever soil strata and underground obstruction other than rock: including provision for SPT tests to determine rock material, temporary casing and approved stabilising slurry; remove all spoils and debris from site.	M	240.00
126	Boring / coring vertical piles shaft through rock strata having SPT-N value>200; minimum depth / rock socket length 3,000mm; including provision for SPT tests to determine rock material, temporary steel casing and approved stabilising slurry; remove all spoils and debris from site.	M	480.00
127	Boring / coring raked piles shaft through rock strata having SPT-N value>200; minimum depth / rock socket length 3,000mm; including provision for SPT tests to determine rock material, temporary steel casing and approved stabilising slurry; remove all spoils and debris from site.	M	530.00
128	Forming pile in bored shaft with Grade 25 cementitious grout.	M ³	2,450.00
129	Ditto Grade 30 cementitious grout.	M ³	2,650.00
130	Ditto Grade 35 cementitious grout.	M ³	2,850.00
131	Reinforcement cage.	KG	6.00

A PILING

Item No.	Description	Unit	Rate (RM)
Micro Piles (cont'd)			
132	Supply and install 141.3mm diameter x 12.7mm thick API pipe of 550N/mm2 strength including splicing where required.	M	320.00
133	Cut off pile head at final cut-off level; exposing and preparing reinforcement bars for anchoring into structures; remove cut-off materials from site.	NO	330.00
134	Cut off pile head at final cut-off level; works comprising cutting off and prepare pile head, weld 400mm x 400mm x 12mm thick m.s. capping plate and 4 nos. of 12mm thick mild steel stiffener to API pipe, weld 2 nos. of T25 'U' bar on capping plate; remove cut-off materials from site.	NO	400.00
135	Pile test; pile dynamic analyser (PDA) test; on working pile, including reporting.	NO	4,500.00
136	Pile test; static load test up to 1800kN; on working pile, including reporting.	NO	39,000.00
137	Ditto, up to 2000kN.	NO	42,000.00
138	Ditto, up to 2400kN.	NO	48,000.00
139	Pile test; pile integrity test (PIT); on working pile, including reporting.	NO	2,200.00
Bored Pile			
140	Drill / bore only vertical pile hole, including temporary steel casing if necessary required depth through soil (soil is defined as any material with SPT-N value less than 300) including the provision of bentonite, drilling mud or stabilizing slurry as necessary and remove all excavated material from site.		
(a)	600mm Dia. bored pile.	M	460.00
(b)	900mm Dia. bored pile.	M	600.00
(c)	1200mm Dia. bored pile.	M	800.00
(d)	1500mm Dia. bored pile.	M	1,067.00
141	Drill / bore only raked pile hole, including temporary steel casing if necessary, to required depth through soil (soil is defined as any material value less than 300) including the provision of bentonite, drilling mud or stabilizing slurry as necessary and remove all excavated material from site.		
(a)	600mm Dia. bored pile.	M	550.00
(b)	900mm Dia. bored pile.	M	650.00
(c)	1200mm Dia. bored pile.	M	850.00
(d)	1500mm Dia. bored pile.	M	1,210.00

A PILING

Item No.	Description	Unit	Rate (RM)
	Bored Piles (cont'd)		
142	Drill / bore only vertical pile hole, including temporary steel casing if necessary, to required depth through material of SPT- N value greater than or equal to 300 including the provision of bentonite, drilling mud or approved stabilising slurry as necessary and remove all excavated material from site.		
(a)	600mm Dia. bored pile.	M	1,000.00
(b)	900mm Dia. bored pile.	M	1,500.00
(c)	1200mm Dia. bored pile.	M	2,200.00
(d)	1500mm Dia. bored pile.	M	2,880.00
143	Drill / bore only raked pile hole, including temporary steel casing if necessary, to required depth through material of SPT-N value greater than or equal to 300 or rock, including the provision of bentonite, drilling mud or approved as necessary and remove all excavated material from site.		
(a)	600mm Dia. bored pile.	M	1,200.00
(b)	900mm Dia. bored pile.	M	1,750.00
(c)	1200mm Dia. bored pile.	M	2,550.00
(d)	1500mm Dia. bored pile.	M	3,050.00
144	Supply and vibrate reinforced concrete Grade 35 as described including plasticizer, additives, etc. and wet pouring by tremie where necessary in bored pile for 600mm diameter bored pile or 900mm diameter or 1200mm diameter or 1500mm diameter pile.	M ³	630.00
145	Supply and vibrate reinforced concrete Grade 40 as described including plasticizer, additives, etc. and wet pouring by tremie where necessary in bored pile for 600mm diameter bored pile or 900mm diameter or 1200mm diameter or 1500mm diameter pile.	M ³	680.00
146	Supply and install permanent steel casing including the jointing application, of corrosion protection paint and surface preparation by sandblasting.	M	6,800.00
147	Cut off pile head to required level, cleaning of surface, stripping, cleaning and vending steel reinforcement bars ready for pile cap construction.		
(a)	600mm Dia. bored pile.	NO	390.00
(b)	1200mm Dia. bored pile.	NO	500.00
(c)	1500mm Dia. bored pile.	NO	700.00
(d)	1500mm Dia. bored pile.	NO	900.00
148	Supply and install 50mm dia. MS sonic logging tube and tie to reinforcement cage of the whole length of each bored pile and infill the tubes with Grade 40 cement grout upon completion of testing.		

A PILING

Item No.	Description	Unit	Rate (RM)
	Bored Piles (cont'd)		
(a)	600mm Dia. bored pile. (4 Tubes)	M	300.00
(b)	900mm Dia. bored pile. (4 Tubes)	M	300.00
(c)	1200mm Dia. bored pile. (5 Tubes)	M	375.00
(d)	1500mm Dia. bored pile. (5 Tubes)	M	375.00
149	Carry out sonic logging test in the installed tubes for inclusive of equipments, fieldworks, reports, etc.		
(a)	600mm Dia. bored pile.	NO	1,500.00
(b)	900mm Dia. bored pile.	NO	1,500.00
(c)	1200mm Dia. bored pile.	NO	1,500.00
(d)	1500mm Dia. bored pile.	NO	1,500.00
150	Carry out low strain pile integrity test (PIT) at selected bored pile inclusive of all equipments, fieldworks, reports, etc		
(a)	600mm Dia. bored pile.	NO	1,400.00
(b)	900mm Dia. bored pile.	NO	1,400.00
(c)	1200mm Dia. bored pile.	NO	1,400.00
(d)	1500mm Dia. bored pile.	NO	1,400.00
151	Static load test on working vertical pile on LAND including preparation of pile head, provision of all necessary equipment, kentledge, personnel, record, report, etc for bored pile.	Tonne	180.00
152	Static load test on working vertical pile on RIVER including preparation of pile head, provision of all necessary equipment, kentledge, personnel, record, report, etc for bored pile, excluding staging support of kentledge system.	Tonne	240.00
153	High strain dynamic pile testing (PDA) to 1 set working load on working vertical pile including provision of all necessary equipment, personnel, and record, report, etc.		
(a)	600mm Dia. bored pile.	NO	6,000.00
(b)	900mm Dia. bored pile.	NO	12,000.00
(c)	1200mm Dia. bored pile.	NO	18,000.00
(d)	1500mm Dia. bored pile.	NO	24,000.00

A PILING

Item No.	Description	Unit	Rate (RM)
	Sheet Piles		
154	Supply, delivery, handle and pitch sheet pile.	KG	6.00
155	Drive sheet pile		
(a)	On land	M	38.50
(b)	Over water (excluding temporary staging / platform)	M	44.00
156	Cut off sheet pile to required level, cleaning of surface, and preparing heads.	M	88.00

B EXCAVATOR

Item No.	Description	Unit	Rate (RM)
1	Clearing and grubbing within the Site of all trees, bushes, etc.	Ha	3,468.00
2	Cut down and clear away from site, trees exceeding 300mm and not exceeding 600mm girth measured at 1.00m above ground level including grubbing up roots and filling up holes with approved earth.	NO	124.90
3	Cut down and clear away from site, trees exceeding 600mm and not exceeding 1200mm girth measured at 1.00m above ground level including grubbing up roots and filling up holes with approved earth.	NO	208.10
4	Cut down and clear away from site, trees exceeding 1200mm and not exceeding 1800mm girth measured at 1.00m above ground level including grubbing up roots and filling up holes with approved earth.	NO	333.00
5	Excavate oversite average 150mm deep to level off formation or reduce level and dump away excess earth.	M ²	2.20
6	Excavate to obtain formation level, load and transport excavated material to temporary spoil heap or filling area within site (by mechanical equipment).	M ³	9.70
7	Excavate to obtain formation level, load and transport excavated material to temporary spoil heap or filling area within site (by mechanical equipment), but transport away from site within 1 km lead.	M ³	10.30
8	Excavate to obtain formation level, load and transport excavated material to temporary spoil heap or filling area within site (by mechanical equipment), transport only through each subsequent 1 m lead.	M ³	1.20
9	Excavate for foundation, trenches, pier holes, manholes, septic tanks, filter beds etc. not exceeding 1.50m deep, part backfill and remove surplus spoil and deposit, spread and level on site as specified (manually).	M ³	21.50
10	Excavate for foundation, trenches, pier holes, manholes, septic tanks, filter beds etc. exceeding 1.50m deep and not exceeding 3.00m deep, part backfill and remove surplus spoil and deposit, spread and level on site as specified (manually).	M ³	24.30
11	Excavate for foundation, trenches, pier holes, manholes, septic tanks, filter beds etc. exceeding 3.00m deep and not exceeding 4.50m deep, part backfill and remove surplus spoil and deposit, spread and level on site as specified (manually).	M ³	33.80
12	Excavate for foundation, trenches, pier holes, manholes, septic tanks, filter beds etc. to irrespective of depth (by mechanical equipment).	M ³	13.60
13	Excavation in rock including remove from site:		
(a)	Open excavation (including use of explosive, etc).	M ³	22.00
(b)	Control blasting	M ³	27.50
(c)	Trench excavation (including for foundation, trenches, pier holes, manholes, septic tanks, filter beds and etc.)	M ³	40.00
14	Excavation and cart away of unsuitable material to contractor's own dumping source within 15km from site (by mechanical equipment).	M ³	15.00

B EXCAVATOR

Item No.	Description	Unit	Rate (RM)
15	Imported approved earth from contractor's own source within 15 km from site including unloading in filling areas.	M ³	31.20
16	Spread, level and compact excavated earth for filling in layers as specified in filling areas.	M ³	2.70
17	Spread, level and compact surplus excavated earth in areas from site, within 3km lead.	M ³	6.90
18	Supply, lay and compact hardcore of approved aggregates.	M ³	110.00
19	50mm thick lean concrete (Grade 15) blinding on top of hardcore.	M ³	18.70

C CONCRETOR

Item No.	Description	Unit	Rate (RM)
1	Lean concrete (Grade 15) in 50mm thick blinding.	M ²	19.00
2	Mass Concrete (Grade 20) in non-structural works such as pavements, upstands, kerbs and the like.	M ³	400.00
3	Reinforced concrete (Grade 25) in sub-structural works such as pile caps, pad footings, column stumps, and the like.	M ³	415.00
4	Reinforced concrete (Grade 30) in sub-structural works such as pile caps, pad footings, column stumps, and the like.	M ³	432.00
5	Reinforced concrete (Grade 35) in sub-structural works such as pile caps, pad footings, column stumps, and the like.	M ³	445.00
6	Reinforced concrete (Grade 40) in sub-structural works such as pile caps, pad footings, column stumps, and the like.	M ³	460.00
7	Reinforced concrete (Grade 25) in sub-structural works such as ground beams, ground slabs, apron slabs, steps, platform slabs, ramp and the like.	M ³	431.60
8	Reinforced concrete (Grade 30) in sub-structural works such as ground beams, ground slabs, apron slabs, steps, platform slabs, ramp and the like.	M ³	447.20
9	Reinforced concrete (Grade 35) in sub-structural works such as ground beams, ground slabs, apron slabs, steps, platform slabs, ramp and the like	M ³	462.80
10	Reinforced concrete (Grade 40) in sub-structural works such as ground beams, ground slabs, apron slabs, steps, platform slabs, ramp and the like.	M ³	478.40
11	Reinforced concrete (Grade 25) in super-structural works such as columns, stiffeners, walls and the like.	M ³	431.60
12	Reinforced concrete (Grade 30) in super-structural works such as columns, stiffeners, walls and the like.	M ³	447.20
13	Reinforced concrete (Grade 35) in super-structural works such as columns, stiffeners, walls and the like.	M ³	462.80
14	Reinforced concrete (Grade 40) in super-structural works such as columns, stiffeners, walls and the like.	M ³	478.40
15	Reinforced concrete (Grade 25) in super-structural works such as suspended floor beams, suspended floor slabs, roof beams, roof slabs, gutter, canopy slabs, staircases, landing slab, and the like.	M ³	421.00
16	Reinforced concrete (Grade 30) in super-structural works such as suspended floor beams, suspended floor slabs, roof beams, roof slabs, gutter, canopy slabs, staircases, landing slab, and the like.	M ³	437.80
17	Reinforced concrete (Grade 35) in super-structural works such as suspended floor beams, suspended floor slabs, roof beams, roof slabs, gutter, canopy slabs, staircases, landing slab, and the like.	M ³	469.60
18	Reinforced concrete (Grade 40) in super-structural works such as suspended floor beams, suspended floor slabs, roof beams, roof slabs, gutter, canopy slabs, staircases, landing slab, and the like.	M ³	484.60

C CONCRETOR

Item No.	Description	Unit	Rate (RM)
19	Mass Concrete (Grade 20) in civil works such as fencing post footings, thrust blocks, scour stops, road kerb bedding, and the like.	M ³	402.50
20	Reinforced concrete (Grade 25) in road pavement slabs, cross-over slabs, and the like.	M ³	418.00
21	Reinforced concrete (Grade 25) in sewerage works such as septic tanks, manholes, and the like.	M ³	418.00
22	Mild steel bars in reinforcement to concrete work generally including all cutting, bending and placing in position:		
(a)	6mm Diameter.	KG	5.10
(b)	8mm Diameter.	KG	5.10
(c)	10mm Diameter.	KG	5.10
(d)	12mm Diameter.	KG	5.10
(e)	16mm – 32mm Diameter.	KG	4.9 0
(f)	above 32mm Diameter.	KG	4.90
23	High tensile steel bars in reinforcement to concrete work, generally including all cutting, bedding and placing in position:		
(a)	10mm Diameter.	KG	5.10
(b)	12mm Diameter.	KG	5.10
(c)	16mm – 32mm Diameter.	KG	5.10
24	Welded steel fabric reinforcement of 100mm x 200mm weighing 3.73kg/m ² and embedded in concrete (MS-B283/B6).	M ²	25.40
25	Welded steel fabric reinforcement of 100mm x 200mm weighing 4.53kg/m ² ditto (MS-B385/B7).	M ²	31.50
26	Welded steel fabric reinforcement of 100mm x 200mm weighing 5.93kg/m ² ditto (MS-B503/B8).	M ²	37.60
27	Welded steel fabric reinforcement of 100mm x 200mm weighing 6.97kg/m ² ditto (MS-B636/B9).	M ²	42.00
28	Welded steel fabric reinforcement of 200mm x 200mm weighing 2.22kg/m ² ditto (MS-A142/A6).	M ²	14.50
29	Welded steel fabric reinforcement of 200mm x 200mm weighing 3.02kg/m ² ditto (MS-A193/A7).	M ²	20.20
30	Welded steel fabric reinforcement of 200mm x 200mm weighing 3.95kg/m ² ditto (MS-A252/A8).	M ²	26.70
31	Welded steel fabric reinforcement of 200mm x 200mm weighing 4.99kg/m ² ditto (MS-A318/A9).	M ²	30.00

C CONCRETOR

Item No.	Description	Unit	Rate (RM)
32	Welded steel fabric reinforcement of 200mm x 200mm weighing 6.16kg/m ² ditto (MS-A393/A10).	M ²	37.70
33	Expanded metal reinforcement of 100mm x 400mm weighing 2.61kg/m ² (MS-C283/C6).	M ²	15.80
34	Expanded metal reinforcement of weighing 4.34 kg/m ² (MS-C503/C8)	M ²	32.60
35	Mild steel fabric mesh reinforcement:		
(g)	BRC 65.	M ²	8.90
(h)	BRC 66.	M ²	6.90
(i)	BRC610.	M ²	6.80
	<u>Sawn Formwork As Specified</u>		
36	To sides of foundation and ground beam.	M ²	54.60
37	To sides of wall.	M ²	54.60
38	To sides of column, staircase, lintols etc.	M ²	56.10
39	To sides and soffit of beam.	M ²	56.10
40	To soffit of suspended floor slab, roof slab, landing slab etc.	M ²	59.60
41	Extra over last four items for sloping surfaces.	M ²	4.40
42	Extra over formwork for curved on plan and elevation to varying radius.	M ²	8.90
43	Extra over for strutting to slab/beams exceeding 3.60m high for every 600mm stages.	M ²	6.80
44	Extra over sawn formwork for wrot surfaces.	M ²	10.40
45	Extra over sawn formwork for patterned formwork with fillets at 150mm centres or in 150mm wide "V" jointed timber boards.	M ²	25.80
46	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	46.50
	<u>Precast Concrete Work</u>		
47	150mm Wide internal precast reinforced concrete (Grade 25) half round surface water drain channel including bends, junctions etc. finished fair on exposed surfaces and bedding as specified, including all necessary excavations and part backfill.	M	34.60
48	225mm Wide internal precast reinforced concrete (Grade 25) half round surface water drain channel including bends, junctions etc. finished fair on exposed surfaces and bedding as specified, including all necessary excavations and part backfill.	M	51.90
49	300mm Wide internal precast reinforced concrete (Grade 25) half round surface water drain channel including bends, junctions etc. finished fair on exposed surfaces and bedding as specified, including all necessary excavations and part backfill.	M	56.70

C CONCRETOR

Item No.	Description	Unit	Rate (RM)
50	375mm Wide internal precast reinforced concrete (Grade 25) half round surface water drain channel including bends, junctions etc. finished fair on exposed surfaces and bedding as specified, including all necessary excavations and part backfill.	M	67.60
51	450mm x 450mm x 75mm Thick precast reinforced concrete (Grade 25) lon 'longkang pencegah malaria' finished fair on exposed surfaces and bedding as specified including all necessary excavation.	M	168.10
52	50mm Thick precast reinforced concrete (Grade 25) drain cover with and including one layer of fabric reinforcement, weighing 2.35kg/m ² (A6).	M ²	55.00
53	112mm x 150mm Precast concrete (Grade 25) lintol including formwork but excluding reinforcement.	M	26.80
<u>Damp Proof Membrane</u>			
54	To supply and lay 0.25mm thick damp proof membrane laid underneath concrete concrete all to the approval of the SO and in accordance with the manufacturer's manufacturer's instruction.	M ²	12.60
55	To supply and apply hot poured rubber bitumen joint sealant based expansion joints for sealing horizontal movement and construction joints in concrete pavements and floor slabs. Joints should be filled to the surface of the concrete or to the level specified.	M ²	50.50

D BRICKLAYER

Item No.	Description	Unit	Rate (RM)
1	One brickwall in common bricks in cement mortar (1:6) as specified.	M ²	86.70
2	Ditto in cement mortar (1:3) as specified.	M ²	95.10
3	Half brickwall in common bricks in cement mortar (1:6) reinforced with and including brick reinforcement at every fourth course.	M ²	64.30
4	Ditto in cement mortar (1:3) reinforced with and including brick reinforcement at every fourth course.	M ²	65.90
5	Extra over common brickwork for fair face in cement mortar (1:6) pointing on one side only as specified.	M ²	12.20
6	Half brickwall built honey-comb in cement mortar (1:6) with 113mm spaces as specified.	M ²	54.90
7	One brickwall in cement bricks in cement mortar (1:6) as specified.	M ²	95.10
8	One brickwall in cement bricks in cement mortar (1:3) as specified.	M ²	100.30
9	Half brickwall in cement bricks in cement mortar (1:6) reinforced with and including brick reinforcement at every fourth course.	M ²	67.70
10	Half brickwall in cement bricks in cement mortar (1:3) reinforced with and including brick reinforcement at every fourth course.	M ²	69.20
11	Damp proof courses as specified (measured nett with no allowance made for laps in various widths as specified).	M ²	33.00
12	90mm Thick precast cement and sand hollow blocks in cement mortar (1:6) as specified.	M ²	55.90
13	90mm Thick precast cement and sand hollow blocks in cement mortar (1:3) as specified.	M ²	60.70
14	114mm Thick precast cement and sand hollow blocks in cement mortar (1:6) as specified.	M ²	59.10
15	114mm Thick precast cement and sand hollow blocks in cement mortar (1:3) as specified.	M ²	60.60
16	190mm Thick precast cement and sand hollow blocks in cement mortar (1:6) as specified.	M ²	91.70
17	190mm Thick precast cement and sand hollow blocks in cement mortar (1:3) as specified.	M ²	92.20
18	450mm Thick limestone rubble walling in cement mortar (1:3) as specified.	M ²	324.40
19	450mm Thick granite rubble walling in cement mortar (1:3) as specified.	M ²	361.30
20	Extra over uncoursed random stone walling for fair face in cement mortar (1:3) and pointing as specified.	M ²	17.60
21	Extra over for squared rubble fair face and pointed as specified.	M ²	20.30

E DRAINLAYER

Item No.	Description	Unit	Rate (RM)
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	9.20
2	Excavate trench for 100mm diameter drain and bed 400mm wide exceeding 1.50m deep but not exceeding 3.00m deep and average 1.80m deep and back filling trench including removing surplus soil and deposit and spread and level on site as specified.	M	18.20
3	Excavate trench for 150mm diameter drains and bed 450mm 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	11.20
4	Excavate trench for 150mm diameter drains and bed 450mm wide exceeding 1.50m deep but not exceeding 3.00m deep and average 1.80m deep and back filling trench including removing surplus soil and deposit and spread and level on site as specified.	M	21.90
5	150mm Concrete (Grade 20) bed 450mm wide under 100mm diameter drain pipe and haunch as specified.	M	44.90
6	150mm Concrete (Grade 20) bed 500mm wide under 150mm diameter drain pipe and haunch as specified.	M	51.80
7	150mm Concrete (Grade 20) bed 500mm wide under 100mm diameter drain pipe and completely surround as specified.	M	55.00
8	150mm Concrete (Grade 20) bed 500mm wide under 150mm diameter drain pipe and completely surround as specified.	M	55.00
9	Concrete (Grade 25) 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.	M ²	63.00
10	Flexible rubberised bitumen emulsion waterproofing coating to external sides of sides of underground structures, e.g., RC Retaining Wall, lift pits, manhole or septic tank with 1 layer of primer coat at rate of 0.35kg/m ² , and 2 layers of solvent free, flexible rubber/bitumen emulsion coating at rate of 0.7kg/m ² /coat.	M ²	38.00
11	100mm Diameter (medium duty) cast iron drains laid complete as specified.	M	145.10
12	Extra over for bend.	NO	72.50
13	150mm Diameter (medium duty) cast iron drains laid complete as specified.	M	217.60
14	Extra over for bend.	NO	108.80
15	100mm Diameter UPVC Class "C" pipes laid and jointed with solvent weld complete with bend, sockets, etc as specified and in accordance with manufacturer's instructions.	M	40.30
16	Extra over for bend.	NO	41.60
17	19mm Diameter mild steel rod 750mm girth bent as required and with end split end split caulked and built into brickwork as step iron.	M	12.50

E DRAINLAYER

Item No.	Description	Unit	Rate (RM)
18	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	213.80
19	610mm x 457mm Coated cast iron light duty single seal flat type manhole cover and frame to BS.497 in grade "C" weighing 38.18kg including setting frame in cement and sand (1:3) as specified and sealing cover with grease.	NO	320.70
20	762mm x 762mm Coated cast iron medium duty single seal flat type manhole cover and frame to BS.497 in grade "B" weighing 234.00kg including setting frame in cement and sand (1:3) as specified and sealing cover with grease.	NO	2,106.00
21	588mm Diameter Coated cast iron heavy duty single seal flat type manhole cover and frame 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	2,205.00
22	30mm – 100mm gauge graded limestone in filter bed as filter media.	M ³	125.00

F ROOFER

Item No.	Description	Unit	Rate (RM)
1	0.47mm TCT (0.42mm BMT) Spandek in improved clean Colorbond XRW steel (G550-AZ150) (Cover width 700mm) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	M ²	95.50
2	0.47mm TCT (0.42mm BMT) Trimdek in improved clean Colorbond XRW steel (G550-AZ150) (Cover width 760mm) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	M ²	90.30
3	0.47mm TCT (0.42mm BMT) Styledek in improved clean Colorbond XRW steel (G300-AZ150) (Cover width 1050mm) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	M ²	97.00
4	Kliplok Optima in improved clean Colorbond XRW steel (G550-AZ150) (cover width 980mm) c/w KL98 clips & Class 3 fasteners, or approved equivalent in accordance with manufacturer's instructions.		
(a)	0.47mm TCT (0.42mm BMT)	M ²	104.90
(b)	0.53mm TCT (0.48mm BMT)	M ²	115.30
5	0.47mm TCT (0.42mm BMT) in improved clean Colorbond XRW steel (G550-AZ150) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	M ²	104.00
6	0.47mm TCT (0.42mm BMT) Styledek Optima in improved clean Colorbond XRW steel (G550-AZ150) ridge capping (2.44mm length each) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	PIECE	112.70
7	0.47mm TCT (0.42mm BMT) Klip-Lok Optima in improved clean Colorbond XRW steel (G550-AZ150) ridge capping (2.44mm length each) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	PIECE	137.80
8	0.47mm TCT (0.42mm BMT) Trimdek / Spandek in improved clean Colorbond XRW steel (G550-AZ150) ridge capping (2.44mm length each) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	PIECE	120.40
9	0.47mm TCT (0.42mm BMT) valley gutter in improved clean Colorbond XRW steel (G550-AZ150) ridge capping (2.44mm length each) c/w 3 Fasteners, or approved equivalent fixed in accordance with manufacturer's instructions.	PIECE	137.20
10	0.48mm thick Besalon roofing in Multicote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	127.00
11	0.48mm thick Multi Tile roofing in Multicote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	113.00
12	0.48mm thick Megatile in Multicote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	93.00
13	0.48mm thick Millenium tile roofing in Multicote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	99.00

F ROOFER

Item No.	Description	Unit	Rate (RM)
14	0.48mm thick Multi Klip I roofing in MultiCote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	127.00
15	0.48mm thick Multi Klip II roofing in MultiCote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	120.00
16	0.48mm thick Multi Span roofing in MultiCote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	107.00
17	0.48mm thick Multi Flex roofing in MultiCote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	100.00
18	0.48mm thick Mega Span roofing in MultiCote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	87.00
19	0.48mm thick Mega Flex roofing in MultiCote G6 of approved colour fixed in accordance with Manufacturer's Instructions.	M ²	83.00
20	0.48mm thick x 2.44m long Ridge cap/ valley gutter/ apron mould/ barge mould Type 450 of same material as above (Item 10 to 13).		
(i)	Single tone	PIECE	132.00
(ii)	Double tone	PIECE	146.00
21	0.48mm thick x 2.44m long Ridge cap/ valley gutter/ apron mould/ barge mould Type 300 of same material as above (Item 10 to 13).		
(i)	Single tone	PIECE	102.00
(ii)	Double tone	PIECE	113.00
22	0.48mm thick flashing of same material as above (Item 10 to 13).		
(i)	Single tone	M ²	71.00
(ii)	Double tone	M ²	78.00
23	0.48mm thick x 2.44m long Ridge cap/ valley gutter/ apron mould/ barge mould Type 450 of same material as above (Item 14 to 17).	PIECE	133.00
24	0.48mm thick x 2.44m long Ridge cap/ valley gutter/ apron mould/ barge mould Type 300 of same material as above (Item 14 to 17).	PIECE	102.00
25	0.48mm thick flashing of same material as above (Item 14 to 17)	M ²	88.00
26	0.48mm thick x 2.44m long Ridge cap/ valley gutter/ apron mould/ barge mould Type 450 of same material as above (Item 18 to 19).	PIECE	102.00
27	0.48mm thick x 2.44m long Ridge cap/ valley gutter/ apron mould/ barge mould Type 300 of same material as above (Item 18 to 19).	PIECE	75.00
28	0.48mm thick flashing of same material as above (Item 18 to 19).	M ²	54.00

G CARPENTER AND JOINER

Item No.	Description	Unit	Rate (RM)
	<u>The Following In Wrot Timber (Timber Species To Follow SG5 Of The Schedule Of Timer Species Page H/9 Of The Standard Specifications For Building Works) Unless Otherwise Stated.</u>		
1	Frames to doors, windows and vents including fixing (Type "SG1", SG2, - excluding belian" –"SG3", "SG4" and "SG5")	M ³	8,200.00
2	Frame to doors, windows and vent including (Type "SG2 - belian only")	M ³	21,000.00
3	Floor joists, roof trusses, rafters, ceiling joists and partitions including fixing (Type "SG1", "SG2 – excluding belian", "SG3" and "SG5").	M ³	7,900.00
4	Floor joists, roof trusses, rafters, ceiling joists and partitions including fixing (Type "SG2 - belian only)	M ³	23,000.00
5	Moulded skirting, architrave, picture rails and cornices in (Type "SG6") including fixing.	M ³	9,000.00
6	Staircase component in (Type "SG1", "SG2 – excluding belian", "SG3","SG4" and "SG5") including fixing.	M ³	9,300.00
7	Staircase component in (Type "SG2" - belian only") including fixing.	M ³	24,000.00
8	13mm Thick wall panelling comprising of 51mm x 13mm and 25mm x 13mm strips fixed at 25mm	M ²	196.00
9	Approved one hour fire rated doors in timber frame including assembling all in accordance with the manufacturer's	NO	1,278.90
10	Approved one hour fire rated doors in timber frame including assembling all in accordance with the manufacturer's instructions complete with accessories, Double leaf size 1800mm x 2100mm x 44mm thick.	NO	2,557.80
11	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 44mm thick.	NO	2,174.10
12	Approved two hour fire rated doors in timber frame including assembling all in accordance with the manufacturer's instructions complete with accessories, Double leaf size 1800mm x 2100mm x 44mm thick.	NO	3,836.70
13	38mm Thick framed, ledged and braced doors and windows including fixing but excluding ironmongery (measured overall).	M	70.00
14	38mm Thick panelled doors and casement windows, open and rebated for glass or other infill (measured separately) including fixing but excluding ironmongery (measured overall).	M	70.00
15	51mm Thick louvered doors and windows including fixing but excluding ironmongery (measured overall).	M ²	295.00
16	38mm Thick skeleton framed flush door covered both sides with 6mm thick plywood including fixing but excluding ironmongery (measured overall).	M ²	130.00
17	28mm Thick approved PVC flush door overall size 770mm x 2100mm including fixing but excluding ironmongery.	NO	143.80
18	28mm Thick approved PVC flush door overall size 875mm x 2100mm including fixing but excluding ironmongery.	NO	157.60

G CARPENTER AND JOINER

Item No.	Description	Unit	Rate (RM)
19	28mm Thick approved PVC flush door overall size 780mm x 2100mm including fixing but excluding ironmongery.	NO	146.00
20	28mm Thick approved PVC flush door overall size 880mm x 2100mm including fixing but excluding ironmongery.	NO	165.00
21	28mm Thick approved PVC laminated door overall size 815mm x 2100mm	NO	350.00
22	32mm Thick tongued and grooved floor boarding.	M ²	213.00
23	19mm Thick weather boarding (measured nett).	M ²	125.00
24	25mm Thick barge boards and fascias.	M ²	155.50
25	19mm Thick boarding in shelves.	M ²	136.80
26	50mm x 13mm Thick timber strip ceiling fixed with 13mm gap in between	M ²	154.80
27	13mm Thick soft board in ceiling fixed complete including V-jointed and cutting.	M ²	63.20
28	9mm Thick gypsum plaster board in ceiling fixed complete including cutting.	M ²	34.40
29	9mm Thick chipboard in ceiling fixed complete butt or V-jointed and cutting.	M ²	32.00
30	13mm Thick chipboard in ceiling fixed complete butt or V-jointed and cutting.	M ²	37.00
31	6mm Thick cemboard in ceiling fixed complete as specified.	M ²	40.00
32	8mm Thick cemboard in ceiling fixed complete as specified.	M ²	41.00
33	10mm Thick cemboard in ceiling fixed complete as specified.	M ²	43.50
34	13mm Thick mineral fibre board ceiling, exposed lay in grid and complete with aluminium framing complete with suspension wire and other supports.	M ²	98.80
35	16mm Thick mineral fibre board ceiling, exposed lay in grid and complete with aluminium framing complete with suspension wire and other supports.	M ²	115.30
36	13mm Thick mineral fibre board ceiling with concealed metal suspension and joint edge.	M ²	131.60
37	16mm Thick mineral fibre board ceiling with concealed metal suspension and joint edge.	M ²	148.00
38	9mm Thick plain fibrous plastered ceiling board on and including galvanised iron suspension system.	M ²	73.00
39	12mm Thick plain fibrous plastered ceiling board on and including galvanised iron suspension system.	M ²	89.00
40	65mm x 65mm fibrous plastered plain cornice.	M ²	28.90

G **CARPENTER AND JOINER**

Item No.	Description	Unit	Rate (RM)
41	6mm Thick plywood panel (one side) in partition including fixing but excluding framing.	M ²	27.80
42	10mm Thick plywood panel (one side) in partition including fixing but excluding framing.	M ²	41.60
43	3mm thick "UAC" cement sheeting fixed.	M ²	16.90
44	19mm Thick weather boarding (measured nett).	M ²	20.00
45	6mm Thick approved cement board (one side) in partition including fixing but excluding framing.	M ²	43.90
46	12mm Thick approved cement board (one side) in partition including fixing but excluding framing.	M ²	55.90
47	24mm Thick approved cement board (one side) in partition including fixing but excluding framing.	M ²	89.50
48	9mm Thick approved gypsum board (one side) in partition including fixing but excluding framing.	M ²	55.00
49	12mm Thick approved gypsum board (one side) in partition including fixing but excluding framing.	M ²	73.40
50	32mm Thick perforated acoustic boards fixed to walls as specified.	M ²	228.60
51	50mm Thick resilient and flexible bounded fine glass fibre mat lining (density 10kg/m ³) and fixing to wall as specified	M ²	32.90
52	1mm Thick "Formica" or equivalent laminated plastic sheeting including fixing.	M ²	81.50
53	50mm Thick "Insulite" woodwool-slabs including fixing.	M ²	121.60
54	Layer of single sided reinforced aluminium foil insulation laid to slope with 150mm laps (measured nett-no allowance made for laps).	M ²	7.00
55	Layer of double sided reinforced aluminium foil insulation laid to slope with 150mm laps (measured nett-no allowance made for laps).	M ²	12.00
56	25mm Thick "Rockwool" or equivalent mineral wool slab sandwiched between timber framing (measured separately).	M ²	15.00
57	50mm thick "Rockwool" or equivalent mineral wool slab insulation laid to fall on roof framing (measured separately).	M ²	28.50
58	Galvanised chicken wire netting 25mm x 25mm grid, fixed with tying wire to purlins including 150mm laps (measured nett-no allowance made for laps).	M ²	4.40
59	50mm thick "Rockwool" or equivalent mineral wool slab insulation laid to fall on	M ²	25.50

H IRONMONGERY

Item No.	Description	Unit	Rate (RM)
	<u>Supply and fix the following ironmongery:</u>		
1	75mm Steel butt hinges (75mm x 60mm).	NO	8.00
2	100mm Steel butt hinges (100mm x 60mm).	NO	14.00
3	100mm Stainless steel butt hinges.	NO	10.00
4	75mm Counter flap stainless steel hinges.	NO	15.00
5	127mm x 100mm x 3mm stainless steel hinges.	NO	28.40
6	127mm x 100mm x 3mm stainless steel hinges.	NO	31.20
7	100mm x 100mm x 3.0mm stainless steel hinges.	NO	26.00
8	2.0mm x 71mm x 100mm stainless steel door hinges.	NO	15.00
9	2.5mm x 88mm x 127mm stainless steel door hinges.	NO	28.40
10	150mm stainless steel cabin hook and eye.	NO	16.00
11	100mm Cabinet "D" handle.	NO	12.00
12	150mm Cabinet "D" handle.	NO	18.00
13	Entrance handle set.	NO	100.00
14	Gripset double handle set.	NO	150.00
15	Decorative Door Pull.	NO	68.40
16	200mm AC Door Pull.	NO	60.00
17	150mm AC Door Pull.	NO	50.00
18	127mm AC Door Pull.	NO	40.00
19	127mm Heavy duty Stainless Steel Door Pull.	NO	70.00
20	100mm Heavy duty Stainless Steel Door Pull.	NO	56.00
21	300mm Stainless Steel Door Pull.	NO	98.00
22	Cabinet Handle 701-96mm Chrome.	NO	9.00
23	Cabinet Handle 728-95mm Zinc Alloy.	NO	10.00
24	Cabinet Handle 211-96mm Zinc Alloy.	NO	10.00
25	50-70mm Tubular Leverset.	NO	180.00
26	60-70mm Tubular Leverset.	NO	190.00
27	Tubular lockset come with adjustable.	NO	125.00
28	300mm standard galvanised steel adjustable friction stay.	NO	50.00
29	300mm standard stainless steel adjustable friction stay.	NO	65.00

H IRONMONGERY

Item No.	Description	Unit	Rate (RM)
30	Window spring catch.	NO	40.00
31	Window fastener.	NO	20.00
32	Window handle (casement window handle bronze aluminium).	NO	20.00
33	Extruded aluminium hat and coat hook with rubber buffer.	NO	21.00
34	300mm cranked pull door handle.	NO	149.50
35	300mm stainless steel cranked pull door handle.	NO	150.00
36	200mm Surface mounted stainless steel barrel bolt.	NO	26.00
37	250mm Surface mounted stainless steel barrel bolt.	NO	26.00
38	150mm x 19mm stainless steel lever action flush bolt.	NO	40.00
39	150mm x 25mm Stainless steel flush bolt.	NO	40.00
40	300mm x 25mm Stainless steel flush bolt.	NO	50.60
41	100mm x 50mm Flush pull.	NO	20.00
42	37.50mm Brass cylinder padlock.	NO	77.50
43	50mm Brass cylinder padlock.	NO	90.00
44	62.50mm Brass cylinder padlock.	NO	110.00
45	Light duty door closer.	NO	145.00
46	Heavy duty door closer.	NO	210.00
47	40mm/38mm Diameter rubber door stop.	NO	6.00
48	50mm stainless steel cupboard lock.	NO	37.10
49	62.50mm Cylinder sliding cupboard lock.	NO	50.00
50	Bathroom indicating bolt.	NO	40.00
51	2 lever mortice lockset (CROWN or other approved equivalent).	NO	230.00
52	2 lever rebated mortice lockset (CROWN or other approved equivalent).	NO	86.00
53	3 lever mortice lockset (CROWN or other approved equivalent).	NO	230.00
54	3 lever rebated mortice lockset (CROWN or other approved equivalent).	NO	86.00
55	Thumb turn cylinder deadlock in stainless steel finish.	NO	180.00
56	Double cylinder deadlock.	NO	180.00
57	60mm Cylindrical mortice door lock (5 pins thumb turn button).	NO	150.00
58	60mm Ditto but rebated (5 pins thumb turn button).	NO	10.00
59	70mm Brass ball catch.	NO	20.00

I STEEL AND IRONWORKER

Item No.	Description	Unit	Rate (RM)
1	Rolled mild steel in roof trusses, braces, gusset plates, bearing plates etc. including revetting, welding, bolting, hoisting and fixing.	KG	11.20
2	Rolled mild steel in angles, joists, channels, plates, etc. including cutting, drilling, assembling, welding, revetting, bolting, etc.	KG	12.40
3	Mild steel hollow sections including cutting, drilling, assembling, welding, etc.	KG	11.80
4	1.0mm Thick galvanised steel window or door frame including cutting, drilling, assembling, welding, revetting, bolting etc.	M	43.10
5	Supply and fix the following mild steel bolts complete with nuts and washers: -		
(a)	19mm – 25mm Diameter bolts.	KG	17.40
(b)	13mm – 16mm Diameter bolts.	KG	17.40
(c)	9mm Diameter bolts.	KG	17.40
(d)	8mm Diameter bolts.	KG	17.40
(e)	6mm Diameter bolts.	KG	17.40
6	50mm x 50mm x 2mm Thick galvanised wire mesh.	M ²	15.50
7	50mm x 25mm x 2mm Thick galvanised wire mesh.	M ²	29.20
8	Pair of self-finished electro galvanised steel adjustable louvre style, 4 blades and fixing (single control).	NO	27.00
9	Add/deduct for each additional/less louvre blade.	NO	7.10
10	Pair of self-finished galvanised pressed steel adjustable louvre style, 8 blades and fixing (single control).	NO	31.00
11	Pair of self-finished galvanised pressed steel adjustable louvre style, 8 blades and fixing (double control).	NO	32.50
12	Add/deduct for each additional/less louvre blade.	NO	7.10
13	10mm Diameter mild steel burglar bars and fixing.	M	9.80
14	12mm Diameter mild steel burglar bars and fixing.	M	13.90
15	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.	M ²	471.60
16	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.	M ²	205.30
17	Supply and fix door 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.	M ²	271.60

I STEEL AND IRONWORKER

Item No.	Description	Unit	Rate (RM)
18	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.	M ²	433.90
19	Supply and fix 1.0mm thick natural anodised aluminium two panel sliding door complete with all necessary framing and accessories, beading on top and bottom of frame (glass measured separately) and fixing.	M ²	490.60
20	Supply and install mild steel collapsible door including channel, tracks, guides, etc. and fixing.	M ²	503.90
21	Mosquito-proof netting – aluminium wire mesh fixed (frames and beads measured separately).	M ²	13.20
22	Mosquito-proof netting – nylon wire mesh fixed (frames and beads measured separately).	M ²	5.00

J PAVIOR. PLASTERER AND TILE FIXER

Item No.	Description	Unit	Rate (RM)
1	20mm Thick cement and sand (1:2) waterproofed rendering (Sika 1 or equivalent), to manufacturer's instruction on concrete slab.	M ²	37.10
2	32mm Thick cement and sand (1:2) waterproofed rendering (Sika 1 or equivalent), to manufacturer's instruction on concrete slab.	M ²	59.30
3	20mm Thick cement and sand (1:2) skirting 150mm high with rounded top edge and coved at bottom.	M	23.30
4	20mm Thick cement and sand (1:3) rendering to floor as specified.	M ²	30.40
5	25mm Thick cement and sand (1:3) rendering to floor as specified.	M ²	34.10
6	38mm Thick cement and sand (1:3) rendering to floor as specified.	M ²	44.60
7	20mm Thick ditto skirting 100mm high as specified.	M	13.10
8	20mm Thick cement and sand (1:3) rendering to floor in coloured cement as specified.	M ²	35.40
9	25mm Thick cement and sand (1:3) rendering to floor in coloured cement as specified.	M ²	39.30
10	38mm Thick cement and sand (1:3) rendering to floor in coloured cement as specified.	M ²	49.80
11	20mm Thick ditto skirting 100mm high as specified.	M	13.10
12	200mm x 200mm x 7mm Thick non-slip ceramic tiles including mortar and screeding as specified.	M ²	99.90
13	300mm x 300mm x 8mm Thick non-slip ceramic tiles including mortar and screeding as specified.	M ²	133.00
14	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.	M ²	119.20
15	300mm x 300mm x 8mm Thick ceramic tiles including mortar and screeding as specified.	M ²	133.00
16	100mm High skirting for 200mm x 7mm thick ceramic tiles as specified.	M	20.60
17	100mm High skirting for 300mm x 8mm thick ceramic tiles as specified.	M	21.60
18	200mm x 200mm x 7mm Thick non-slip heavy duty homogenous tiles including mortar screed as specified.	M ²	89.70
19	300mm x 300mm x 8.5mm Thick non-slip heavy duty homogenous tiles including mortar screed as specified.	M ²	147.90
20	100mm High skirting for 200mm x 8mm heavy duty homogenous ceramic tiles as specified.	M	25.60
21	100mm High skirting for 300mm x 8.5mm heavy duty homogenous ceramic tiles as specified.	M	25.60
22	550mm High riser for "Selangan Batu" parquet flooring with rounded top edge.	M	102.50

J PAVIOR. PLASTERER AND TILE FIXER

Item No.	Description	Unit	Rate (RM)
23	13mm x 75mm High timber skirting to match parquet flooring.	M	23.00
24	2mm Thick Vinyl tile flooring as specified including screed.	M ²	56.50
25	100mm High Vinyl skirting.	M	16.20
26	35mm x 4mm Aluminium dividing strip fixed and cast in floor finish as specified.	M	15.70
27	16mm Thick cement mortar (1:6) with plasticiser plastering in two coats as specified to walls.	M ²	20.90
28	12mm Thick cement mortar (1:6) with plasticiser plastering in two coats as specified to soffit, beam etc.	M ²	19.30
29	20mm Thick cement and sand (1:3) plastering in two coats as specified on walls	M ²	26.60

K PLUMBER

Item No.	Description	Unit	Rate (RM)
1	Galvanised iron 16 gauge (1.55mm) in flashing, collars etc. including jointing and cutting fixed as specified.	M ²	120.80
2	Galvanised iron 18 gauge (1.2mm) in flashing, collars etc. including jointing and cutting fixed as specified.	M ²	109.80
3	Galvanised iron 16 gauge (1.55mm) in valley gutters and gutter lining including jointing and cutting fixed as specified.	M ²	128.50
4	Galvanised iron 22 gauge (0.77mm) 100mm diameter half round eave gutters including jointing and fixing with brackets as specified.	M	47.20
5	Extra over for stopped end, angle or outlet.	NO	19.60
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	55.00
7	Extra over for stopped end, angle or outlet.	NO	17.20
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	35.80
9	Extra over for bend, swan neck or shoes.	NO	15.40
10	Galvanised iron 22 gauge (0.77mm) 100mm x 75mm rainwater downpipe and fixed to wall with approved holderbats.	M	46.40
11	Extra over for bend, shoes and short length.	NO	15.80
12	75mm Diameter Class B UPVC rainwater down pipe jointed with socket connectors and fixed to wall with brackets and distance pieces.	M	28.10
13	Extra over for bend (elbow).	NO	20.40
14	100mm Diameter Class B UPVC rainwater downpipe jointed with socket connectors and fixed to wall with brackets and distance pieces.	M	34.10
15	Extra over for bend (elbow).	NO	26.50
16	155mm Diameter Class B UPVC rainwater downpipe jointed with socket connectors and fixed to wall with brackets and distance pieces.	M	51.20
17	Extra over for bend (elbow).	NO	29.40
18	150mm Half round PVC rainwater gutter including jointing and fixing with brackets.	M	46.10
19	Extra for stopped end.	NO	41.50
20	Approved galvanised iron wire balloon grating and fixing to end of 100mm diameter pipe.	NO	10.40
21	50mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	54.00
22	Extra over for bend.	NO	29.00

K PLUMBER

Item No.	Description	Unit	Rate (RM)
23	50mm Diameter medium duty coated cast iron soil, waste and ventilating pipe for 45 degree Y junction with back door.	NO	56.60
24	75mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	82.30
25	Extra over for bend.	NO	38.90
26	75mm Diameter medium duty coated cast iron soil, waste and ventilating pipe for 45 degree Y junction with back door.	NO	70.90
27	100mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	102.50
28	Extra over for bend.	NO	46.70
29	100mm Diameter medium duty coated cast iron soil, waste and ventilating pipe for 45 degree Y junction with back door.	NO	85.10
30	150mm Diameter medium duty coated cast iron soil, waste and ventilating pipe as specified.	M	152.40
31	Extra over for bend.	NO	86.30
32	150mm Diameter medium duty coated cast iron soil, waste and ventilating pipe for bend with cleaning eye.	NO	121.30
33	High Density Polyethylene Polystor (HDPE) or equivalent watertank with lid fixed complete:-		
(a)	Size 400 gallons (nominal)	NO	1,188.00
(b)	Size 300 gallons (nominal)	NO	1,072.50
(c)	Size 350 gallons (nominal)	NO	957.00
(d)	Size 250 gallons (nominal)	NO	776.00
(e)	Size 200 gallons (nominal)	NO	608.00
(f)	Size 150 gallons (nominal)	NO	432.00
(g)	Size 100 gallons (nominal)	NO	288.00
34	19mm Flanged tank connection and jointed to galvanised mild steel tubing and mild steel cistern including welding flanged to and perforation in cistern.	NO	13.20
(a)	25mm Ditto.	NO	16.30
(b)	32mm Ditto.	NO	22.40
(c)	38mm Ditto.	NO	27.60
(d)	50mm Ditto.	NO	38.80
(e)	75mm Flanged tank connection and jointed to galvanised mild steel tubing and mild steel cistern including welding flanged to and perforation in cistern.	NO	62.80

K PLUMBER

Item No.	Description	Unit	Rate (RM)
35	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	54.10
(a)	25mm Ditto.	NO	74.80
36	13mm High pressure 13mm Pressure screw down stopcock and jointed to galvanised mild steel tubing both ends.	NO	21.70
(a)	19mm Ditto.	NO	24.40
(b)	25mm Ditto.	NO	31.20
(c)	32mm Ditto.	NO	40.70
(d)	38mm Ditto.	NO	57.00
(e)	50mm Ditto.	NO	84.20
37	13mm Diameter galvanised mild steel tubing in Class "C" as specified including couplings, connectors, bends, elbows and tees.	M	15.70
(a)	19 mm Ditto.	M	22.70
(b)	25 mm Ditto.	M	30.20
(c)	32 mm Ditto.	M	38.60
(d)	38 mm Ditto.	M	45.50
(e)	50 mm Ditto.	M	60.00
(f)	63 mm Ditto.	M	75.70
(g)	75 mm Ditto.	M	90.10
(h)	100 mm Ditto.	M	119.90
38	13mm Diameter galvanised mild steel tubing in Class "B" including all necessary bends, elbows, tees, fixed complete as specified.	M	11.80
(a)	19 mm Ditto.	M	17.20
(b)	25 mm Ditto.	M	22.60
(c)	32 mm Ditto.	M	28.90
(d)	38 mm Ditto.	M	34.10
(e)	50 mm Ditto.	M	45.00
(f)	63 mm Ditto.	M	56.70
(g)	75 mm Ditto.	M	67.60
(h)	100 mm Ditto.	M	89.90

K PLUMBER

Item No.	Description	Unit	Rate (RM)
39	15mm Diameter UPV pipe in Class "D" including fixing as specified.	M	2.60
(a)	20mm Ditto.	M	3.80
(b)	25mm Ditto.	M	5.20
(c)	32mm Ditto.	M	18.60
(d)	40mm Ditto.	M	10.50
(e)	50mm Ditto.	M	14.50
(f)	75mm Ditto.	M	25.30
(g)	100mm Ditto.	M	46.60
40	UPVC fittings in "Class D" as specified:-		
(a)	15mm Diameter elbow.	NO	2.20
(b)	20mm Ditto.	NO	2.80
(c)	25mm Ditto.	NO	3.90
(d)	32mm Ditto.	NO	4.20
(e)	40mm Ditto.	NO	6.50
(f)	50mm Ditto.	NO	8.70
(g)	75mm Ditto.	NO	21.00
(h)	100mm Ditto.	NO	40.00
41	UPVC fittings in "Class D" as specified:-		
(a)	15mm Diameter bend.	NO	2.20
(b)	20mm Ditto.	NO	2.80
(c)	25mm Ditto.	NO	3.90
(d)	32mm Diameter bend.	NO	4.20
(e)	40mm Ditto.	NO	6.50
(f)	50mm Ditto.	NO	8.70
(g)	75mm Ditto.	NO	21.00
(h)	100mm Ditto.	NO	40.00

K PLUMBER

Item No.	Description	Unit	Rate (RM)
42	UPVC fittings in "Class D" as specified: -		
(a)	15mm Diameter tee.	NO	3.00
(b)	20mm Ditto.	NO	4.00
(c)	25mm Ditto.	NO	6.00
(d)	32mm Ditto.	NO	7.00
(e)	40mm Ditto.	NO	8.00
(f)	50mm Ditto.	NO	9.00
(g)	75mm Ditto.	NO	23.00
(h)	100mm Ditto.	NO	42.00
43	UPVC fittings in "Class D" as specified: -		
(a)	15mm Diameter socket double end.	NO	2.60
(b)	20mm Ditto.	NO	3.50
(c)	25mm Ditto.	NO	3.70
(d)	32mm Ditto.	NO	5.00
(e)	40mm Ditto.	NO	5.70
(f)	50mm Ditto.	NO	7.20
(g)	80mm Ditto.	NO	14.60
(h)	100mm Ditto.	NO	28.20
44	HDPE pipe grade PN 10 including fixing as specified: -		
(a)	25mm Diameter.	M	4.30
(b)	32mm Ditto.	M	4.90
(c)	50mm Ditto.	M	8.40
(d)	75mm Ditto.	M	9.50
45	HDPE pipe fittings as specified: -		
(a)	25mm Diameter 90 Deg. Elbow.	NO	5.60
(b)	32mm Ditto.	NO	8.10
(c)	50mm Ditto.	NO	22.80
(d)	75mm Ditto.	NO	64.80

K PLUMBER

Item No.	Description	Unit	Rate (RM)
46	HDPE pipe fittings as specified: -		
(a)	25mm Diameter equal tee.	NO	7.60
(b)	32mm Ditto.	NO	11.90
(c)	50mm Ditto.	NO	32.90
(d)	75mm Ditto.	NO	82.00
47	HDPE pipe fittings as specified: -		
(a)	25mm Diameter Straight Coupler.	NO	5.10
(b)	32mm Ditto.	NO	7.40
(c)	50mm Ditto.	NO	19.70
(d)	75mm Ditto.	NO	40.40
48	HDPE pipe fittings as specified: -		
(a)	25mm Diameter Male Threaded Adaptor (MTA).	NO	3.00
(b)	32mm Ditto.	NO	4.10
(c)	50mm Ditto.	NO	12.10
(d)	75mm Ditto.	NO	39.00
49	HDPE pipe fittings as specified: -		
(a)	25mm Diameter Female Threaded Adaptor (FTA).	NO	3.20
(b)	32mm Ditto.	NO	4.80
(c)	50mm Ditto.	NO	15.70
50	HDPE pipe fittings as specified: -		
(a)	25mm Diameter Reducer Coupling.	NO	4.60
(b)	32mm Ditto.	NO	6.60
(c)	50mm Ditto.	NO	15.30
(d)	75mm Ditto.	NO	56.40
51	Supply and fix the following sanitary fittings: -		
(a)	150mm x 150mm Semi-recessed, white glazed vitreous china toilet roll holder.	NO	48.00
(b)	150mm x 150mm Semi-recessed white glazed vitreous china soap holder.	NO	53.00
(c)	300mm x 150mm White glazed vitreous china recessed combined soap dish and sponge holder.	NO	92.10

K PLUMBER

Item No.	Description	Unit	Rate (RM)
51	Supply and fix the following sanitary fittings (Cont'd): -		
(d)	550mm x 125mm Plate glass shelf complete with chromium plated brass brackets.	NO	130.00
(e)	600mm x 25mm Diameter Stainless Steel plated towel rail with ball and brackets for fixing.	NO	68.30
(f)	550mm x 400mm Bevelled edged plate glass mirror.	NO	105.00
(g)	12mm Chromium plated bib tap.	NO	59.30
(h)	12mm Wall mounted mixer with 150mm lever swivel anti splash nozzle or approved equivalent.	NO	182.00
(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	550.00
(j)	Ditto with two 13mm chromium plated taps, marked 'hot' and 'cold'.	NO	82.50
(k)	500mm x 420mm Wall hung clinical wash hand basin in white vitreous china with taphole, overflow & chainhole.	NO	650.00
(l)	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	455.00
(m)	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	550.00
(n)	Double bowl and double drainer stainless steel sink size 1800mm x 525mm complete with 13mm chromium plated pillar tap, 38mm trap etc. as specified.	NO	650.00
(o)	Squatting W.C. set including cistern as specified.	NO	500.00
(p)	Pedestal W.C. set including cistern as specified.	NO	600.00
(q)	Fibre 1500mm x 750mm 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	3,500.00
(r)	100mm Diameter chromium plated shower rose and arm with swivel joint complete with 13mm chrome plated stopcock	NO	196.20
(s)	Single urinal bowl as specified including automatic cistern and chrome plated sparge pipes.	NO	527.40
(t)	Concealed Flush Valve	NO	400.00
(u)	Exposed Flush Valve	NO	350.00

K **PLUMBER**

Item No.	Description	Unit	Rate (RM)
53	Supply and install polyethylene (PE) septic tank as per manufacturer's instruction including all necessary pipes and fittings (cost excluding R.C slab and foundation). Population Equivalent for Black Water: -		
(a)	12 persons.	NO	1,780.00
(b)	17 persons.	NO	3,200.00
(c)	20 persons.	NO	3,420.00
(d)	30 persons.	NO	5,840.00
(e)	60 persons.	NO	11,550.00
(f)	70 persons.	NO	13,860.00

L GLAZIER

Item No.	Description	Unit	Rate (RM)
1	4mm Thick clear sheet glass and glazing to wood or metal as specified.	M ²	55.60
2	5mm Ditto.	M ²	65.30
3	6mm Ditto.	M ²	78.20
4	4mm Thick clear sheet glass louvre blade 150mm wide as specified.	M	9.20
5	5mm Ditto.	M	10.50
6	6mm Ditto	M	12.30
7	4mm Thick clear float glass and glazing to wood or metal as specified.	M ²	66.70
8	5mm Ditto.	M ²	81.40
9	6mm Ditto.	M ²	92.50
10	4mm Thick clear float glass louvre blade 150mm wide as specified.	M	10.70
11	5mm Ditto.	M	12.90
12	6mm Ditto.	M	14.70
13	4mm Thick obscured glass and glazing to wood or metal as specified.	M ²	49.20
14	5mm Ditto.	M ²	53.70
15	4mm Thick obscured glass louvre blade 150mm wide as specified.	M	8.20
16	5mm Ditto.	M	8.70
17	5mm Thick grey sheet glass and glazing to wood or metal as specified.	M ²	88.10
18	6mm Ditto.	M ²	94.70
19	5mm Thick grey sheet glass louvre blade 150mm wide as specified.	M	13.90
20	6mm Ditto.	M	15.00
21	5mm Thick grey float glass and glazing to wood or metal as specified.	M ²	108.40
22	6mm Ditto.	M ²	115.70
23	5mm Thick dark grey float glass louvre blade 150mm wide as specified.	M	17.00
24	6mm Ditto.	M	18.20
25	5mm Thick tinted glass and glazing to wood or metal as specified.	M ²	68.20
26	6mm Ditto.	M ²	78.40
27	6mm Thick obscured wired glass and glazing to wood or metal as specified.	M ²	244.10

M PAINTER

Item No.	Description	Unit	Rate (RM)
1	Knot, prime, stop and paint one undercoat and two finishing coats of gloss enamel paint on woodwork.	M ²	21.50
2	Ditto on surfaces not exceeding 100mm girth.	M	3.50
3	Ditto exceeding 100mm and not exceeding 200mm girth.	M	4.60
4	Ditto exceeding 200mm and not exceeding 300mm girth.	M	6.30
5	Clean down, prime and paint one undercoat and two coats of gloss enamel paint on metal surfaces generally as specified.	M ²	21.50
6	Ditto on surfaces not exceeding 100mm girth.	M	6.30
7	Clean down, prime and paint one undercoat and two coats of gloss enamel paint on metal surfaces generally as specified.	M	4.60
8	Ditto exceeding 200mm and not exceeding 300mm girth.	M	6.30
9	Clean down, prime and paint two coats of emulsion paint on walls and ceiling as specified.	M ²	12.30
10	Stain and wax polish to approval on timber surfaces as specified.	M ²	16.30
11	Ditto on surfaces not exceeding 100mm girth	M	2.90
12	Ditto exceeding 100mm and not exceeding 200mm girth.	M	5.40
13	Ditto exceeding 200mm and not exceeding 300mm girth.	M	7.90
14	Prepare and apply two coats of floor dressing on parquet or other timber flooring	M ²	33.80
15	Wood preservative, two coats on timber as specified.	M ²	11.60
16	Prepare and apply two coats of acrylic co-polymer resin-based paint ('Sandtex Matt' or equivalent) on walls and soffits.	M ²	24.30
17	Prepare, stain to approval and apply three coats of varnish on surfaces of woodwork.	M ²	19.00
18	Ditto on surfaces of woodwork not exceeding 100mm girth.	M	2.50
19	Ditto exceeding 100mm and not exceeding 200mm girth.	M	5.80
20	Ditto exceeding 200mm and not exceeding 300mm girth.	M	6.30
21	Prepare and apply two coats of flame-retardant paint (up to 600 degrees) on metal surfaces.	M ²	33.80
22	Prepare and apply two coats of silicone-based water repellent solution on fair-face concrete and brickwork surfaces.	M ²	18.00

N ROAD CULVERT, FENCING, TURFING AND ROADSIDE DRAINS

Item No.	Description	Unit	Rate (RM)
1	50mm Thick sand spread, levelled and compacted to falls and cambers.	M ²	5.10
2	250mm (finished) Thick crusher run base course in two layers as specified spread and levelled.	M ²	34.80
3	300mm Thick crusher run spread, levelled and compacted to falls and cambers.	M ²	41.70
4	87.50mm (finished) Thick layer of wearing course (ACB 28) consisting of two layers as specified, the first layer 62mm thick made up to 37.50mm – 62.50mm aggregate, each layer spread and levelled and well rolled and compacted.	M ²	66.80
5	50mm Thick asphaltic concrete wearing course (ACW 20), spread, levelled and compacted to and even gradient and crossfalls.	M ²	43.00
6	40mm Ditto.	M ²	34.40
7	Prepare and apply 2 coats approved reflective road line paint (non-thermal plastic) as specified on premix road, 100mm wide.	M	4.40
8	Prepare and apply 3mm thick approved reflective road line paint (thermal plastic) as specified on premix road, 100mm wide.	M	4.30
9	Prepare and apply 2 coats approved reflective road line paint (non-thermal plastic)	M	12.30
10	3mm thick road markings (measured nett) and direction arrows in thermoplastic.	M ²	59.20
	<u>Road Kerb</u>		
11	600mm x 150mm x 300mm precast reinforced concrete (Grade 25) 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	65.00
12	600mm x 150mm x 300mm precast reinforced concrete (Grade 25) as specified kerb with scupper opening finished fair on exposed surfaces, bedded, jointed and pointed in cement mortar (1:3) including all necessary excavation, formwork and painting as specified.	M	70.00
13	600mm x 100mm x 300mm precast reinforced concrete (Grade 25) as specified kerb with splayed top finished air on exposed surfaces, bedded, jointed and pointed in cement mortar (1:3) including all necessary excavation, formwork and painting as specified.	M	60.00
14	Reinforced concrete (Grade 25) in culvert base, surround, head and wings walls.	M ³	409.50

N ROAD CULVERT. FENCING. TURFING AND ROADSIDE DRAINS

Item No.	Description	Unit	Rate (RM)
	Fencing		
15	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 (Grade 20) 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 6mm painted steel angle corner struts with bottom end embedded in and including concrete (Grade 20) base.	M	121.60
16	Ditto 50mm diamond mesh (No. 12 S.W.G) ditto.	M	128.50
17	Ditto 65mm diamond mesh (No. 10 S.W.G) ditto.	M	114.30
18	Ditto 65mm diamond mesh (No. 12 S.W.G) ditto.	M	121.60
19	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	21.70
20	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 corner struts with bottom end embedded in and including concrete (1:3:6-25mm aggregate) base.	M	125.20

N ROAD CULVERT, FENCING, TURFING AND ROADSIDE DRAINS

Item No.	Description	Unit	Rate (RM)
	<u>Versatile Fencing</u>		
21	Supply, delivery and installation of V Series with heavy GI Wire and minimum zinc coating 245g/m ² (Type P or Type Y) at 75mm spacing: -		
(a)	900mm x 2400mm x 6mm wire Dia.	PC	261.80
(b)	1200mm x 2400mm x 6mm wire Dia.	PC	314.20
(c)	1500mm x 2400mm x 6mm wire Dia.	PC	391.20
(d)	1800mm x 2400mm x 6mm wire Dia.	PC	443.50
22	Supply, delivery and installation of V Series with heavy GI Wire and minimum zinc coating 245g/m ² (Type P or Type Y) at 100mm spacing: -		
(a)	900mm x 2400mm x 6mm wire Dia.	PC	215.60
(b)	1200mm x 2400mm x 6mm wire Dia.	PC	258.70
(c)	1500mm x 2400mm x 6mm wire Dia.	PC	321.90
(d)	1800mm x 2400mm x 6mm wire Dia.	PC	363.40
23	Supply, delivery and installation of V Series with hot dip galvanized and PE grey colour coated (Type P or Type Y) at 75mm spacing: -		
(a)	900mm x 2400mm x 6mm wire Dia.	PC	320.30
(b)	1200mm x 2400mm x 6mm wire Dia.	PC	395.80
(c)	1500mm x 2400mm x 6mm wire Dia.	PC	492.80
(d)	1800mm x 2400mm x 6mm wire Dia.	PC	568.30
24	Supply, delivery and installation of V Series with hot dip galvanized and PE grey colour coated (Type P or Type Y) at 100mm spacing:-		
(a)	900mm x 2400mm x 6mm wire Dia.	PC	278.70
(b)	1200mm x 2400mm x 6mm wire Dia.	PC	345.00
(c)	1500mm x 2400mm x 6mm wire Dia.	PC	429.70
(d)	1800mm x 2400mm x 6mm wire Dia.	PC	495.90
25	Supply, delivery and installation of T2 Series with Hot Dip galvanized and PE Grey colour coated at 50mm x 150mm spacing:-		
(a)	900mm x 2400mm x 5mm wire Dia.	PC	274.10
(b)	1200mm x 2400mm x 5mm wire Dia.	PC	360.40
(c)	1500mm x 2400mm x 5mm wire Dia.	PC	446.60

N ROAD CULVERT. FENCING. TURFING AND ROADSIDE DRAINS

Item No.	Description	Unit	Rate (RM)
	<u>Versatile Fencing (cont'd)</u>		
26	Supply, delivery and installation of T2 Series with Hot Dip galvanized and PE Grey colour coated at 50mm x 150mm spacing: -		
(d)	1800mm x 2400mm x 5mm wire Dia.	PC	532.80
(e)	2100mm x 2400mm x 5mm wire Dia.	PC	619.10
(f)	2400mm x 2400mm x 5mm wire Dia.	PC	705.30
27	Supply, delivery and installation of S Series with Hot Dip galvanized and PE Grey colour coated at 12.5mm x 100mm spacing: -		
(a)	1500mm x 1200mm x 4mm wire Dia.	PC	375.80
(b)	1800mm x 1200mm x 4mm wire Dia.	PC	449.70
(c)	2100mm x 1200mm x 4mm wire Dia.	PC	523.60
(d)	2400mm x 1200mm x 4mm wire Dia.	PC	597.50
(e)	2700mm x 1200mm x 4mm wire Dia.	PC	672.10
(f)	3000mm x 1200mm x 4mm wire Dia.	PC	747.00
28	Supply, delivery and installation of G Series with Hot Dip galvanized and PE grey / green / black colour coated at 65mm x 200mm spacing: -		
(a)	1080mm x 2410mm x 5mm wire Dia.	PC	274.10
(b)	1280mm x 2410mm x 5mm wire Dia.	PC	323.40
(c)	1480mm x 2410mm x 5mm wire Dia.	PC	372.70
(d)	1680mm x 2410mm x 5mm wire Dia.	PC	422.00
(e)	1880mm x 2410mm x 5mm wire Dia.	PC	471.20
29	Supply, delivery and installation of accessories for versatile fence with hot dip galvanized: -		
(a)	V series accessories		
	(i) Round post 1 1/2" - A (2.9mm) (height ≤1m)	PC	45.60
	(ii) Round post 1 1/2" - A (2.9mm) (height 1.1m - 1.2m)	PC	61.60
	(iii) Round post 1 1/2" - A (2.9mm) (height 1.3m - 1.5m)	PC	75.60
	(iv) Round post 1 1/2" - A (2.9mm) (height 1.6m - 2m)	PC	96.60
	(v) Round post 1 1/2" - A (2.9mm) (height 2.1m - 3m)	PC	140.00
	(vi) Round post 2" - A (2.9mm) (height ≤1m)	PC	65.80

N ROAD CULVERT, FENCING, TURFING AND ROADSIDE DRAINS

Item No.	Description	Unit	Rate (RM)
	<u>Versatile Fencing (cont'd)</u>		
30	Supply, delivery and installation of accessories for versatile fence with hot dip galvanized: -		
(a)	V series accessories (cont'd)		
	(vii) Round post 2" - A (2.9mm) (height 1.1m - 1.2m)	PC	75.60
	(viii) Round post 2" - A (2.9mm) (height 1.3m - 1.5m)	PC	93.80
	(ix) Round post 2" - A (2.9mm) (height 1.6m - 2m)	PC	121.80
	(x) Round post 2" - A (2.9mm) (height 2.1m - 3m)	PC	175.00
	(xi) Round post cap 1 1/2" / 2"	PC	14.00
(b)	T2 / S / G Series accessories		
	(i) Square hollow post 50mm x 50mm x 2.3mm (height ≤1m)	PC	57.60
	(ii) Square hollow post 50mm x 50mm x 2.3mm (height 1.1m - 1.2m)	PC	68.40
	(iii) Square hollow post 50mm x 50mm x 2.3mm (height 1.3m - 1.5m)	PC	81.60
	(iv) Square hollow post 50mm x 50mm x 2.3mm (height 1.6m - 2m)	PC	106.80
	(v) Square hollow post 50mm x 50mm x 2.3mm (height 2.1m - 3m)	PC	154.80
	(vi) Square hollow post 50mm x 50mm x 2.3mm (height 3.1m - 6m)	PC	302.40
	(vii) Square hollow post 65mm x 65mm x 2.3mm (height ≤1m)	PC	75.60
	(viii) Square hollow post 65mm x 65mm x 2.3mm (height 1.1m - 1.2m)	PC	88.80
	(ix) Square hollow post 65mm x 65mm x 2.3mm (height 1.3m - 1.5m)	PC	110.40
	(x) Square hollow post 65mm x 65mm x 2.3mm (height 1.6m - 2m)	PC	142.80
	(xi) Square hollow post 65mm x 65mm x 2.3mm (height 2.1m - 3m)	PC	210.00
	(xii) Square hollow post 65mm x 65mm x 2.3mm (height 3.1m - 6m)	PC	412.80
	(xiii) Square hollow post 75mm x 75mm x 2.3mm (height ≤1m)	PC	82.80
	(xiv) Square hollow post 75mm x 75mm x 2.3mm (height 1.1m - 1.2m)	PC	98.40
	(xv) Square hollow post 75mm x 75mm x 2.3mm (height 1.3m - 1.5m)	PC	120.00
	(xvi) Square hollow post 75mm x 75mm x 2.3mm (height 1.6m - 2m)	PC	158.40
	(xvii) Square hollow post 75mm x 75mm x 2.3mm (height 2.1m - 3m)	PC	232.80
	(xviii) Square hollow post 75mm x 75mm x 2.3mm (height 3.1m - 6m)	PC	458.40
	(xix) Square welded cap 50mm x 50mm	PC	9.60
	(xx) Square welded cap 65mm x 65mm	PC	10.80

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Item No.	Description	Unit	Rate (RM)
	<u>Versatile Fencing (cont'd)</u>		
31	Supply, delivery and installation of accessories for versatile fence with hot dip galvanized: -		
(b)	T2 / S / G Series accessories (cont'd)		
	(xxi) Square welded cap 75mm x 75mm	PC	12.00
	(xxii) Fastener screw 6.3mm x 50mm	PC	1.20
	(xxiii) C-clip	PC	8.40
(c)	S series accessories		
	(i) Flat bar 50mm (2.8mm) x height 1.6m - 2m	PC	40.80
	(ii) Flat bar 50mm (2.8mm) x height 2.1m - 3m	PC	57.60
	(iii) Flat bar 50mm (2.8mm) x height 3.1m - 6m	PC	106.80
	(iv) Flat bar 65mm (6mm) x height 1.6m - 2m	PC	82.80
	(v) Flat bar 65mm (6mm) x height 2.1m - 3m	PC	120.00
	(vi) Flat bar 65mm (6mm) x height 3.1m - 6m	PC	232.80
	(vii) Flat bar 75mm (6mm) x height 1.6m - 2m	PC	93.60
	(viii) Flat bar 75mm (6mm) x height 2.1m - 3m	PC	135.60
	(ix) Flat bar 75mm (6mm) x height 3.1m - 6m	PC	261.60
32	Supply, delivery and installation of accessories for versatile fence with hot dip galvanized and PU/PE colour coated: -		
(a)	V series accessories		
	(i) Round post 1 1/2" - A (2.9mm) (height ≤1m)	PC	50.40
	(ii) Round post 1 1/2" - A (2.9mm) (height 1.1m - 1.2m)	PC	58.80
	(iii) Round post 1 1/2" - A (2.9mm) (height 1.3m - 1.5m)	PC	70.80
	(iv) Round post 1 1/2" - A (2.9mm) (height 1.6m - 2m)	PC	92.40
	(v) Round post 1 1/2" - A (2.9mm) (height 2.1m - 3m)	PC	134.40
	(vi) Round post 2" - A (2.9mm) (height ≤1m)	PC	62.40
	(vii) Round post 2" - A (2.9mm) (height 1.1m - 1.2m)	PC	72.00
	(viii) Round post 2" - A (2.9mm) (height 1.3m - 1.5m)	PC	87.60
	(ix) Round post 2" - A (2.9mm) (height 1.6m - 2m)	PC	114.00
	(x) Round post 2" - A (2.9mm) (height 2.1m - 3m)	PC	166.80
	(xi) Round post cap 1 1/2" / 2"	PC	14.40

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Item No.	Description	Unit	Rate (RM)
<u>Mild Steel Gate</u>			
33	Mild steel double leaf gate size 4.90m wide 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.	3,000.00
34	Mild steel single leaf gate size 1.05m wide x 1.50m high ditto.	NO	720.00
35	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	4,600.00
<u>Turfing</u>			
36	Spot turfing on level surfaces at 450mm centres in chequered pattern and including 50mm bed of black earth as specified.	M ²	5.60
37	Close turfing on level surfaces and including 50mm bed of black earth as specified.	M ²	11.30
38	Close turfing on level surfaces and including 50mm bed of black earth and pegging, all as specified.	M ²	12.60
39	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.	M ²	23.80
<u>Roadside Drains</u>			
40	300mm x 300mm Precast reinforced concrete semi elliptical channel 75mm thick including all necessary excavation.	M	37.70
41	375mm x 375mm Ditto.	M	52.50
42	450mm x 450mm Ditto.	M	67.70
43	600mm x 600mm Ditto.	M	105.10
44	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	31.40

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Item No.	Description	Unit	Rate (RM)
<u>Roadside Drains (cont'd)</u>			
45	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.	M ²	63.00
46	80mm Ditto.	M ²	92.80
47	100mm Ditto.	M ²	97.70
<u>Mild Steel Grating</u>			
48	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	78.00
49	600mm x 600mm Ditto.	NO	187.20
50	1200mm x 1200mm Ditto.	NO	724.40
51	850mm x 850mm Mild steel grating as sump cover Ditto.	NO	367.30