



JABATAN PENGAIRAN DAN SALIRAN DAERAH KLANG
TAWARAN SEBUTHARGA **JPS/N/KLG/PK-8/58/2021(SH)**

Sebutharga di keluarkan oleh :
Ganesan Balakrishnam
Jurutera Daerah ,
JPS, Klang.

Tawaran : KERJA-KERJA MEROBOH DAN MEMBINA SEMULA KUARTERS PINTU AIR PANDAMARAN SERTA KERJA-KERJA BERKAITAN DAERAH KLANG, SELANGOR DARUL EHSAN.

Tawaran ditutup pada **12 OGOS 2021** sebelum **12.00 tengah hari** di Jab. Pengairan dan Saliran Daerah Klang.

Bil	Code No.	Butir-butir kerja	Unit	QTY	Harga (RM)	Jumlah (RM)
1		Menyediakan Insuran kerja termasuk Workmen Compensation dan Contractor All Risks sebelum kerja-kerja dimulakan.	Pukal			
2		Menyediakan jentera, peralatan dan tenaga buruh bagi Kerja-kerja meroboh dan meratakan Kuarters lama Pintu Air Pandamaran serta kerja-kerja berkaitan	Pukal			
3		Kerja-kerja mengangkut keluar sisa binaan Kuarters Pintu Air Pandamaran keluar dari tapak ke tempat pembuangan Pemborong sendiri serta kerja-kerja berkaitan mengikut arahan Pegawai Penguasa atau wakilnya.	Pukal			
4		Kerja-kerja membina Kuarters baru Pintu Air Pandamaran mengikut NO PELAN : JPS / KLG / SH53 / 2021 / SHEET 01 sehingga SHEET 7 yang dilampirkan				
4.1		<u>EARTHWORKS</u> <u>Excavation for foundations</u> In all materials below or outside limits of bulk excavation mentioned above. Rate to include for disposal of surplus excavated material off the Site.				
A	F141	Excavation; foundation; earth	m3	110		
B	F143	Excavation; foundation; rock.	m3	5		
C	F145	<u>Excavation Ancillaries</u> Excavation; foundation; unsuitable material beyond limits of incidental excavation as	m3	5		

		ordered by the S.O.				
D	F314	Supply, spread and compact 150mm thick hardcore.	m ²	150		
4.2		<p><u>IN SITU CONCRETE</u> Provision and Placing of Concrete Unless separate items are provided, rates for concrete shall include for building in pipes/drains, Class U1 finish and for all necessary rebates, pockets and opening less than 0.1 sq.m.</p>				
A	I111	<p><u>Mass Concrete Grade 15</u> In-situ concrete designed mix; grade 15; 50mm thick blinding layer (lean concrete).</p>	m ²	200		
B	I137	<p><u>Reinforced Concrete Grade 25</u> In-situ concrete designed mix; grade 25; apron and porch</p>	m ³	8		
C	I142	<p><u>Reinforced Concrete Grade 30</u> In-situ concrete designed mix; grade 30; footings.</p>	m ³	8		
D	I144	Ditto; ground beam and roof beam.	m ³	15		
E	I143	Ditto; columns and stumps.	m ³	5		
F	I142	Ditto; ground slab.	m ³	16		
G	I146	Ditto; roof slab at porch and fascia.	m ³	10		
H	I147.1	Ditto; lintels, stiffeners, hoods and cills.	m ³	4		
J	I147.2	Ditto; stand and slab of concrete bench.	m ³	2		
4.3		<p>CONCRETE ANCILLARIES</p>				
A	I413	<p><u>Formwork - Rough Finish (Class F1)</u> Formwork; Sides; ground beams.</p>	m ²	95		
B	I411	Ditto; footings,	m ²	30		
C	I412	Formwork; Sides; stumps,	m ²	32		
D	I410	<p><u>Formwork - Fair Finish (Class F2)</u> Formwork; Sides; fascia gutter.</p>	m ²	20		
E	I420	Formwork; Soffit; fascia gutter	m ²	20		
F	I440	Ditto; sloping; fascia gutter	m ²	25		
G	I412	Formwork; Sides; column	m ²	40		
H	I413	Ditto; roof beams, lintels and cill.	m ²	100		

I	I423	Formwork; soffit; roof beams, lintels and cill.	m2	40		
J	I425	Ditto; car porch slab.	m2	20		
K	I430	Formwork; side and soffit of concrete bench at kitchen,	m2	16		
L		Forming 12mm radius drip throating to fascia gutter.	m	54		
4.4		<u>REINFORCEMENT</u> Rate to include cutting, fixing, tying wires saddles, spacers rolling margins, wastage and etc.				
		<u>Mild Steel to BS 4449</u>				
A	I513	Reinforcement; Mild steel bars; diameter: 12mm and below mild steel bar	t	1		
		<u>High Yield Steel to BS 4449</u>				
B	I523	Reinforcement; High tensile bars; diameter: 12mm and below high tensile bar	t	3		
C	I525	Reinforcement; High tensile bars; diameter: 16mm to 20mm dia. high tensile bar	t	2		
D	I550	Steel wire fabric to BS 4483; ref: A252.	m2	150		
4.5		<u>CONCRETE ACCESSORIES</u>				
A	M512	Steel trowel finish to porch, apron slab, living and room area.	m2	150		
B	M511.1	Supply and lay 200mm sq. x 6mm thick unglazed to floor of toilets. Rate to include cement screed.	m2	6		
C	M511.2	Ditto to dishing around water closet. Ditto.	m	4		
D	M511.3	Ditto to dishing around floor trap. Ditto.	m	2		
E	M511.4	Ditto to 50mm drop, rounded at top and coved bottom. Ditto.	m	7		
F	M531	Supply and lay 200mm square x minimum 5.5mm thick glazed ceramic wall tiles with approved colour and texture to toilets, kitchen and wash area at 1.6m height. Rate to include cement screed.	m2	50		
G	M511	Supply and lay 300mm square x 8mm thick unglazed ceramic floor tiles with approved colour and texture to kitchen and wash area. Ditto.	m2	20		

H	I360	PRECAST CONCRETE (Grade 25) 600mm x 330mm wide x 75mm thick cover slab as shown on the drawings. Rate to include for all reinforcement, formwork, handling and placing complete.	nr	40		
4.6		BRICKWORKS				
A	J110	Supply and fix 115mm thick brickwork reinforced with 'EXMET' at every fourth course. Rate to include R6 x 450mm long bonding ties at every fourth course, one end cast into concrete and other end built into joints of brickwork.	m2	196		
B	J310	Plastering to internal and external face of brickwork and concrete surface.	m2	392		
C		Rendering to soffit of beams.	m2	18		
D	J421	Supply and lay damp proof course to 75 and 115mm brickwork.	m	70		
4.7		PAINTING				
E	N251.1	Supply and paint external masonry surfaces and smooth concrete surface for columns, beams and etc. with two coats of approved weather shield paint. Rate to include a coat of alkali resisting primer and under coat as specified.	m2	200		
F	N251.2	Supply and paint internal masonry surfaces with two coats of approved emulsion paint. Rate to include a coat of alkali resisting primer and under coat as specified.	m2	250		
G	N632	Supply and paint 2 coats of bituminous paint for clean joint at beam/slab interface. Width not exceeding 200mm.	m	180		
4.8		ROOFER				
A	M111	Design, supply, fabricate, and deliver to site including fixing and hoisting in position all fabricated sawn pressure treated Grade 'B' timber roof trusses as required comprising top and bottom chord rafters, bearers, ceiling joist, ties, struts, 45 deg. paneling, packing piece truss connectors, straps and other accessories and obvious timber roof trusses including additional timber structural bearers members required for the suspension of the ceiling board panels all as shown in the	m2	270		

		Drawing.				
B	M123.1	Supply and fix approved concrete roof ridge and hip tile bedded and pointed in cement and sand (1:3) mortar including cut ends, mitres and intersection.	M	30		
C	M123.2	Supply and fix approved concrete interlocking roof tiles laid to sloping roof. Rate to include nails, timber battens, double sided woven aluminium foil insulation sheet, galvanised metal netting, zinc flashing etc as shown on the drawings.	m2	150		
D	M543	Supply and fix 13mm thick asbestos free fiber flat ceiling board. Rate to include all necessary aluminium framing ceiling joist, one coat of alkali resisting primer and two coats of emulsion paint to be applied to surfaces of ceiling sheet, all as per manufacturer's installation.	m2	150		
E	M246	Supply and lay approved water proofing membrane over R.C. gutter, all as directed by the S.O.	m2	20		
4.9		DOORS Rate to include for all hardwood timber frames, aluminium frames, glass, panels, hinges, ironmongeries, paint, etc where necessary as detailed on drawing.				
A	M314.1	Single leaf plain solidwood timber door panel size 900mm x 2100mm high. (Type D1).	nr	2		
B	M314.2	Single leaf plywood flush door panel size 775mm x 2100mm high. (Type D2).	nr	3		
C	M334	Single leaf PVC Folding door panel size 625mm x 2100mm high. (Type D3).	nr	2		
4.10		WINDOWS <u>Aluminium Framed Fixed Glass</u> Supply, deliver and fix complete aluminium framed fixed glass (6mm thick) louvres. Rate to include a layer of approved stainless steel anti-vermin netting, accessories for fixing, etc. as shown on the drawings.				
A	M322.1	For 550mm x 600mm opening, (Type W6).	nr	2		

		<p>Aluminium Casement Fixed Glass Panel Supply, deliver and fix complete side hung aluminium casement with 6mm thick fixed glass panel as shown on the drawing. Rate to include all fixing accessories.</p>				
B	M322.2	For 2450mm x 2675mm high opening, (Type W1).	nr	1		
C	M322.3	For 1600mm x 2375mm high opening, (Type W2).	nr	1		
D	M322.4	For 1650mm x 1925mm high opening, (Type W3).	nr	3		
E	M322.5	For 1650mm x 2075mm high opening, (Type W4).	nr	1		
		<p>Aluminium Framed Adjustable Glass Louvers Supply, deliver and fix complete aluminium framed adjustable glass (6mm thick) louvres with 12mm dia. security bar as shown on the drawing. Rate to include all fixing accessories.</p>				
F	M322.1	For 1150mm x 1200mm opening, (Type W5).	nr	4		
4.11		<p>PERIMETER DRAIN Rate to include excavation, backfilling and disposal of surplus excavated material, grade 20 concrete, 230mm thick brickwall and 20mm thick plastering on exposed surfaces, weepholes, filter material, forming rebate etc, as shown on the drawings. Depth of drain is measured from finished ground level to invert level.</p>				
A	P210	In 225mm Grade 25 P.C. half round drain with 300mm top width depth not exceeding 0.5m.	m	60		
4.12		<p>MISCELLANEOUS WORK Supply and lay 0.125mm thick polyethylene sheet over lean concrete.</p>				
A			m2	150		
B	M183	Supply, joint and fix complete 100mm dia. Class 'B' uPVC rain water downpipe (white). Rate to include all necessary bends, galvanised brackets and fixing accessories.	m	30		
C		Supply, fabricate and fix galvanised M.S. grating type G1 cover for perimeter drain. Rate to include for cutting, welding, etc all as shown on drawing.	m	4		

D	M184	Supply and fix complete 200mm dia. stainless steel grating for rain water down pipes. Rate to include all necessary fixing accessories.	Nr	6		
E	M181	Supply and install heavy duty 150mm wide x 100mm deep uPVC gutter. Rate to include all galvanised necessary brackets support and fixing accessories.	M	50		
F		Approved anti- termite chemical soil treatment to sub- structure works with approved chemicals all in accordance with the manufacturer's instruction. Works to be executed by a licensed pest control company and the Contractor shall submit certificates/ Warranty to provide a guarantee for a period of five (5) years.	m2	150		
G	M720	<u>Cold Water Plumbing</u> Supply, deliver, erection and commissioning of polyethylene water storage tank (tank capacity of 200 gallons) complete with overflow pipe and scour pipe to the approved discharge point. Rate to include stopcocks, float valve, fitting, galvanised M.S support for the tank to be extended from beam to beam and all fixing accessories as directed by the S.O.	Nr	1		
H	M710	Water supply pipe in ABS class 15 from tapping point at external reticulation main to water storage tanks, distribution pipes from water storage tank to sanitary fittings and tap, scour and overflow pipes including all necessary connection with requisite connectors to water storage tank and sanitary fittings, stopcocks, and requisite opening holes in roof, floor and beams, all chased in brickwall as directed by the S.O.	sum			
I	M730	<u>Sanitary Plumbing</u> Soil, waste and vent pipes in cast iron and uPVC pipes from sanitary fittings and including floor and gully traps, outlet grating to nearest manhole including all necessary excavation, concrete casting around pipe works, connections with all requisite connectors to sanitary fittings and requisite openings or holes in floors and beams complete all as directed by the S.O.	sum			

<u>Sanitary Wares and Fittings</u>					
	Supply and fix the following sanitary fittings (as directed by the S.O, specification, related schedule of particulars and an approved brand) including storing, assembling, bedding, plugging and screwing- with matching screws, cutting and pinning or building in brackets, jointing and connecting to services and soil and making good all work disturbed:				
J	Squatting water closet in white vitreous China complete with pair of raised foot treads in white fireclay with `P' or 'S' trap, 40mm diameter PVC flush pipe, 12 litre high level vitreous China cistern with 12mm diameter plastic ball valve, 20mm dia. overflow, galvanised chain and pull and supporting brackets including surrounding in concrete and jointing to soil pipe with cement mortar (1:3).	Nr	1		
K	560mm x 405mm x 215mm white vitreous china wash hand basin (of an approved brand) complete with 1 no. of 32mm plastic bottle trap complete with waste, plug and chain brackets and screwed to tiled wall.	Nr	1		
L	Approved shower rose complete with and including chromium plated valve, wall flanged, concealed riser pipe and fixing walls.	Nr	1		
M	13mm dia. approved chrome plated bib tap.	Nr	4		
N	13mm dia. chrome plated swan neck tap.	Nr	1		
O	1065mm x 460mm x min 150mm deep approved single bowl single drainer stainless steel sink complete with 32mm dia. plastic bottle trap, waste fitting plug, chain and stay brackets and screwed to tiled wall.	Nr	1		
P	75mm diameter floor trap with 100mm dia. hinge type stainless steel (SS 304) cover and connection to waste pipe as directed by the S.O.	Nr	4		
Q	200mm x 200mm x 200mm deep gully trap with stainless steel (SS 304) cover c/w 100mm dia. Upvc outlet pipe and connection to waste pipe as directed by the S.O.	nr	2		

R	<p><u>Sewerage Manhole</u></p> <p>Supply and construct 1050mm x 1050mm x 230mm thick brickwall manhole within high alumina cement render, R.C. base, inspection cover, C.I. Steps, etc to depth not exceeding 1.5m (internal dimension). Rate to include excavation, backfilling, compaction and disposal of surplus materials.</p>	nr	1		
S	<p><u>VCP Pipe</u></p> <p>Supply, lay and joint complete 150mm dia. VCP pipe. Rate to include rubber ring, cutting for close length, trench excavation backfilling and disposal of excavation material.</p>	m	20		
T	<p><u>Meter Stand</u></p> <p>Allow cost for supply and install of communication pipe and meter stand by plumber approved by JBA.</p>	Nr	1		
U	<p>Allow cost for testing of the plumbing and sewerage system.</p>	sum			
4.13	<p><u>ELECTRICAL WORKS</u></p> <p><u>LIGHTING AND SMALL POWER, AIR CONDITIONING SYSTEM</u></p> <p><u>Final Sub-Wring</u></p> <p>To supply, install, testing and commissioning the following final-sub circuit wiring as per drawings and specification and complete with terminations, etc.</p>				
A	<p>To wire up all lighting and ceiling fan points using 3 x 1C 1.5 mm² PVC Cu. Cable in concealed High Impact PVC Conduit c/w 10A switch, terminations and other necessary accessories.</p>	Nos.	15		
B	<p>To wire up all 13A switch socket outlet using 3 x 1C 2.5 mm² PVC Cu. Cable in concealed High Impact PVC Conduit c/w 13A switch socket outlet and other necessary accessories.</p>	Nos.	10		
C	<p>To wire up all 15A switch socket outlet using 3 x 1C 4.0mm² PVC Cu. Cable in concealed High Impact PVC Conduit c/w 15A switch socket outlet and other necessary accessories.</p>	No.	1		

		<u>Electrical Fittings</u>				
D		To supply and install the following electrical fittings complying to Anti Corrossion Requirement as per LS1-S17:-				
E		1 X 36W surface mounted fluorecent fitting bare channel c/w tube, 6 watt low loss ballast, capacitor and other necessary accessories as per specification with anti corrossion treatment	Nos.	8		
F		1 X 18W surface mounted fluorecent fitting bare channel c/w tube, 6 watt low loss ballast, capacitor and other necessary accessories as per specification with anti corrossion treatment	Nos.	2		
G		80W, 1500mm dia ceiling fan complete with fan regulator, and ceiling hook with anti corrossion treatment	Nos.	5		
		<u>Telephone System</u>				
H		To supply an Install weather proof type Telephone Lightning Arrestor Termination box weather proof Type for TELEKOM incoming telephone cable as shown in drawing the no. (NO PELAN : JPS / KLG / SH53 / 2021 / SHEET 08)	Lot	1		
I		To suply and install telephone point using 1x3Prs. 0.63mm ² Cu. PVC Telephone Cable in concealed high impact pvc conduit c/w RJ11 Telephone outlet as shown in drawing the no. (ZHL12/1022/JPSM/PK/P2/S04/E/02)	Lot	1		
J		SMATV Point c/w RG56 Cable in HD High Impact PVC Conduit as per specificationas shown in drawing the no. (NO PELAN : JPS / KLG / SH53 / 2021 / SHEET 08)	Lot	1		
4.14		<u>B7. LIGHTNING PROTECTION SYSTEM</u>				
A		To supply and install Cu. Air Terminal c/w mounting support and all necessary accessories as shown in drawing (NO PELAN : JPS / KLG / SH53 / 2021 / SHEET 09)	No.	2		
B		To supply and install Horizontal and Vertical Lightning Conductor using 1x 25mm x 3mm Bare Cu. Tape c/w mounting accessories	m	50		

C	To supply and install Heavy Duty RC type Earthing Pit c/w min. 2nos. 16mm dia. x 1500mm length Copper Rod to achieve the resistivity less than 5ohm. The cost shall include 2500m length 50mm x 25mm PVC trunking and all additional earthing pit and copper rod required to achieve the ohm resistivity. All jointing shall use exhotermic weld	Lot	4		
D	To supply and install test clamp for each down conductor	No.	4		
7	Menyediakan 2 salinan laporan bergambar (berwarna dan bertarikh) yang menunjukkan kemajuan kerja-kerja sebelum, semasa dan selepas siap kerja dalam bentuk hardcopy dan soft copy (pendrive).	Pukal			

Tempoh siap kerja : Sepuluh (10) Minggu.

Syarat-Syarat : -

- A) Pemborong perlu memahami dengan teliti dan melaksanakan segala syarat syarat yang dilampirkan.
- B) Pemborong perlu meyediakan laporan bergambar sebelum dan selepas kerja-kerja pembinaan.
- C) Segala harga yang dinyatakan hendaklah merangkumi **tempoh yang ditetapkan.**

Ringgit Malaysia

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Tandatangan Pemborong..... Tandatangan Saksi :

Nama Penuh Pemborong Nama Saksi :

No Kad.Pengenalan : No. Kad Pengenalan :

No. Tel : No. Tel :

Cop Syarikat
