

PERMOHONAN PELAN BANGUNAN DI BAWAH AKTA 133, BAGI CADANGAN MEMBINA SEBUAH BENGKEL JENTERA BERAT DI ATAS LOT 2223, MUKIM JASIN, DAERAH JASIN, MELAKA.

UNTUK TETUAN:
MAJLIS AMANAH RAKYAT (MARA)

MANUFACTURER'S NAME/BRAND OF MATERIALS CHECKLIST
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ITEM	MATERIALS	BRAND	COUNTRY OF MANUFACTURE	MODEL
1	11kV SYSTEM*			
1.1	Distribution Transformer	NA	NA	NA
1.2	Indoor Type VCB Circuit Breaker	NA	NA	NA
1.3	Metal enclosed MV Switchgear	NA	NA	NA
1.4	Microprocessor Based IDMT type Over Current and Earth Fault Relays	NA	NA	NA
1.5	Current Transformer for protection	NA	NA	NA
1.6	Current Transformer for metering	NA	NA	NA
1.7	Potential Transformer	NA	NA	NA
1.8	Withdrawable HT Fuse	NA	NA	NA
1.9	Digital Power Meter + RS485	NA	NA	NA
1.10	MCB	NA	NA	NA
1.11	Selector Switch	NA	NA	NA
1.12	DC Nickel Cadmium Battery	NA	NA	NA
1.13	Battery charger (stand alone unit)	NA	NA	NA
1.14	Phase Indicator Light	NA	NA	NA
1.15	11kV 3C .XLPE/SWA/PVC U/G Copper cable	NA	NA	NA
1.16	Termination Cable Box for Distribution	NA	NA	NA

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2	LV MAIN SWITCH BOARDS / POWER FACTOR CORRECTION BOARDS / SUB SWITCH BOARDS / FEEDER PILLAR / DISTRIBUTION BOARDS, FIREMAN RELAY AND ACCESSORIES.			
2.1	Low Voltage Switchboards (MSBs)			
2.2	Sub Switch Board (SSBs)			
2.3	Control Board (CB)			
2.4	Distribution Boards (DBs)			
2.5	Power Factor Correction Board			
2.6	ACBs			
2.7	MCCBs			
2.8	MCBs			
2.9	Contactors			
2.10	Current Transformer for Protection			
2.11	Current Transformer for Metering			
2.12	Digital Power Meter + RS485			
2.13	Time Switch			
2.14	Microprocessor Based Over Current/Earth Fault Relay			
2.15	Electronic Based Over Current/Earth Fault Relay			
2.16	Earth Leakage Relays (ELR) (Time & Current Adjustable Type)			
2.17	Surge Protective Device (SPD)			
2.18	Double Wound Isolation Transformer			
2.19	UPS (Uninterruptible Power Supply)			

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3	STANDBY GENERATOR SET			
3.1	Diesel Engine			
3.2	Engine Radiator			
3.3	Engine Governor			
3.4	Alternator			
3.5	Automatic Voltage Regulator			
3.6	Batteries			
3.7	Battery Charger			
3.8	Fuel Transfer Pump			
4	EARTHING & LIGHTNING PROTECTION SYSTEM			
4.1	Aluminium Tape			
4.2	Copper Tape			
4.3	Heavy Duty Earth Chamber			
4.4	Exothermic Weld			
4.5	Tape Clips			
4.6	Earth Rod			
4.7	Test Clamp			
4.8	Bi Metallic			
4.9	Air Finial			

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5	COPPER CABLE & ACCESSORIES			
5.1	PVC cable			
5.2	XLPE/PVC cable			
5.3	PVC/SWA/PVC cable			
5.4	XLPE/SWA/PVC cable			
5.5	MI/MS Fire Resistant Cable			
5.6	Heat Shrinkable Dry Type Cable Termination			
5.7	Cable Gland			
5.8	G.S Conduit			
5.9	UPVC Conduit			
5.10	Electrogalvanised Trunking			
5.11	Perforated Hot Dipped Galvanised Cable Tray			
5.12	PN10 HDPE Solid Wall Pipe			

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6	SWITCHES, SOCKETS AND ACCESSORIES			
6.1	Steel Back Boxes for Switches and Socket Outlets			
6.2	TPN & SPN Isolator			
6.3	Switches			
6.4	Switches (Weather Proof Type)			
6.5	BIG ROCKER Switches			
6.6	GRID Switches			
6.7	13A Flushed Switch Socket Outlet			
6.8	13A Metalclad Switch Socket Outlet			
6.9	13A Switch Socket Outlet (Weather Proof Type)			
6.10	15A Flushed Switch Socket Outlet			
6.11	15A Metalclad Switch Socket Outlet			
6.12	Underfloor System (Service Box, Junction Box, Vertical Access & etc.)			
6.13	Fireman Switch			

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7	INDOOR LUMINAIRES & ACCESSORIES			
7.1	Keluar Sign (LED)			
7.2	Emergency Light (LED)			
7.3	2 x 24W (T5) Recessed Luminaire (1200mm x 600mm module)			
7.4	2 x 24W (T5) Surface Luminaire (600mm x 600mm module)			
7.5	2 x 18W (T5) Recessed Luminaire (600mm x 600mm module)			
7.6	2 x 18W (T5) Surface Luminaire (600mm x 600mm module)			
7.7	1 x 18W (T5) Surface/Wall Mounted Diffuser Luminaire - Tangga			
7.8	1 x 18W (T5) Surface/Wall Mounted Bare Channel Luminaire			
7.9	2 x 18W (T5) Surface/Wall Mounted Bare Channel Luminaire			
7.10	1 x 18W (T5) Surface/Wall Mounted Bare Channel Luminaire (Weather Proof Type)			
7.11	4 X 54W (T5 LED TUBE BI PIN Type, ≥ 4000 lm)(CCT 5000K-6000K) recessed fitting c/w polished aluminium louvred and parabolic aluminium reflector			
7.12	26W (LED) Recessed Downlight Luminaire (outdoor)			
7.13	150W Floodlight (LED)			
7.14	200W Floodlight (LED)			
7.15	Track Lamp (LED)			
7.16	Bulk Head Luminaires (LED)			
7.17	Recessed Mount PIR Occupancy Sensor (Motion Sensor)			
8	FAN			
8.1	Ventilation Fan			
8.2	Industrail Wall Fan			

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9	WEATHERPROOF OUTDOOR LUMINAIRE & ACCESSORIES			
9.1	120W (LED) lantern Street Lighting			
9.2	75W (LED) lantern Compound Lighting			
9.4	10 meter Hot Dipped Galvanised Pole			
9.5	3.5 meter Hot Dipped Galvanised Pole			
10	OTHER EQUIPMENTS PLEASE ITEMIZE (if any)			

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A	PUBLIC ADDRESS SYSTEM			
1	Preamplifier.			
2	Fireman Emergency Paging.			
3	Remote Paging Console.			
4	500W Power Amplifier.			
5	Amplifier Monitoring Unit.			
6	12 Channel Line Selector.			
7	Automatic Battery Charger.			
8	100AH SLA Batteries.			
9	Automatic Amplifier Changeover Unit.			
10	AM/FM Tuner/CD/MP3 Player.			
11	6W/100V Ceiling Speaker.			
12	6W/100V Box Speaker			
13	20W/100V Horn Speaker			
14	Volume Controller.			
15	Fire Alarm Interface.			
16	Voice Alarm Module.			
17	24Vdc Power Supply.			
18	19" Standard Equipment Rack.			
19	18 AWG Twisted Pair Cable.			
20	22 AWG 2 Core Screen Cable.			
21	CAT6 UTP Cable.			
22	G.S. Conduit.			
23	E.G. Trunking.			
B	CCTV SYSTEM			
1	CCTV Management Software.			

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Item	Materials			
G	COMMON CENTER SYSTEM			
1	43" 4K HDR Professional Display.			
2	Wall Mounted Bracket.			
3	HDMI Walplate.			
5	HDMI Cable.			
6	G.S. Conduit.			
7	E.G. Trunking.			
H	VIDEO PROJECTION SYSTEM			
1	Wall Mounted Bracket.			
2	HDMI Walplate.			
3	HDMI Cable.			
4	G.S. Conduit.			
5	E.G. Trunking.			
I	ASTRO AJOI SYSTEM			
1	43" Full HD HDR Smart TV.			
2	SAT/TV/FM Wall Socket.			
3	RG6 Co-axial Cable.			
4	G.S. Conduit.			
5	E.G. Trunking.			