

## SENARAI SKOP KERJA DAN HARGA (BQ)

NAMA BAHAGIAN/UNIT : ZONE 1

### Proposed Repair and Upgrading Works of floodlighting at Football Stadium, UIAM Gombak. Change All Floodlights on High Mast to 1000W LED

Item	Description	unit	Quantity	Rate (RM)	Total (RM)
<b>A</b>	<b>Preliminaries</b>				
1	Apply PTW (permit to work) details and worker pass by liaise.related authorities & DBSB representative for reporting procedure before work commencement.Provide competent person for ptw , switching (shut down and normalize) and standby work	L/s			
2	Contractor should obtain the following guideline imposed for servicing & maintenance works: Workers should comply with safety rules & guidelines imposed by the DBSB Department of Safety and Health. <b>Contractor must be competent and have more than 3 years' experience in stadium high mast and floodlighting, work with valid CIDB G2 and above. better cert. Project reference list and CIDB cert must be submitted.</b>	L/s			
3	Insurance coverage using takaful insurance for workmanship compensation and public liability within the duration of contract and must be submitted to DBSB before starting work.	L/s			
4	Reporting Procedure: Preparation of report for billing purposes should attached with pictures affixed with timer stamp	L/s			
<b>B</b>	<b>LED Floodlight High mast no.4</b>				
5	Site preparation of equipment, material, labour, transportation, crane, insurance, permits, cleaning and related safety equipment.	L/s			

6	Supply, install and modification new <b>1000W LED round floodlight, LED lumen output efficacy 190Lm/W and above</b> for high mast no. 4 only. Refer attachment existing floodlight (1 year warranty)	sets	64		
7	Twin head RED LED flashing aircraft warning lights 2 x 4.5W ICAO Annex 14 Point POL-21005-2F-R-34B-D7. Refer attachment (1 year warranty)	set	1		
8	Supply and install new neoprene cables H07 RN-F Lay and install neoprene cable 4 core 4mm <sup>2</sup> from feeder pillar ground level to floodlight on top of high mast no. 4. Cable length from feeder pillar to floodlight is around 80 meter (1 year warranty)	Nos	34 set		
9	Tower crane rental about 80 meters for the entire working period.	L/s			
10	PVC cables and all previous metal halide floodlights must be dismantled and disposed properly.	L/s			
11	The contractor shall clean the area and dispose of construction waste outside the UIA area and in the permitted disposal area	L/s			
12	Night Testing on football field with report and finishing work feeder pillar. Test report must IR service endos.	L/s			
13	Modification and paint feeder pillar floodlight	l/s			
14	Upgrade earthing system. Reading > 5 ohm	l/s			
15	Period of work				
16	Term of payment				
TOTAL					

**For any questions contact En. Farid di Talian 0193991553**

## **Attachment**

### **Specification of High Mast Lighting Fitting**

#### **1kW LED Floodlight Fitting**

The fixture shall be made of housing corrosion proof aluminium alloy with high efficacy LED output > 190 lm/W rated IP66 and IK09 protection. The LEDs shall have colour temperature of daylight 5700k and CRI>70 Flux DM 1000W Floodlight.

The fixture shall have built in electronic driver with MOV surge protection line to ground of 10kV supply 220 – 240Vac and power factor >0.9. The housing material made of extruded 6060 aluminium heatsink with powder coated for high thermal conductivity.

#### **Aircraft Warning Light**

The Aircraft Warning Light (AWL) shall be using aviation red LEDs, flashing twin head 2 x 4.5W and subject to a supply voltage of 240Vac. The LED board shall be treated with a protective dielectric conformal coating for protection against moisture and corrosion.

The power supply board shall be protected from line surges by Metal Oxide Varistors (MOV), including protection against short circuit. The fixture body shall be made of cast aluminium and powder coated aviation yellow, corrosion resistant and weatherproof to IP66. The unit shall be certified in compliance with FAA L-810, ICAO types A & B low intensity and CAAM approved similar to Point POL21005-2F-R-34B-D7 230Vac.

**Existing Floodlight**

