

UNIT PEMBANGUNAN & PENYELENGGARAAN FASILITI

POLITEKNIK MUKAH SARAWAK
KEMENTERIAN PENGAJIAN TINGGI
KM 7.5, Jalan Oya 96400 Mukah Sarawak
Tel : 084-874001 Faks : 084-874005

JADUAL SPESIFIKASI KERJA DAN TAWARAN HARGA KERJA

Ruj. Kami

Tarikh:

PERKARA		KERJA-KERJA PENYELENGGARAAN BUMBUNG DAN LAIN-LAIN KERJA YANG BERKAITAN DI BANGUNAN JTMK POLITEKNIK MUKAH, SARAWAK.							
BIL	ITEM	UNIT UKURAN	KUANTITI	HARGA SEUNIT	AMAUN	CATATAN (CADANGAN TEKNIKAL)			
				(RM)	(RM)				
Penyediaan bahan-bahan, pekerja mahir, pengangkutan, alat-alat kelengkapan dan segala keperluan yang berkaitan (harga ini hendaklah dimasukkan sekali dalam harga-harga yang ditawarkan untuk melaksana dan menyiapkan kerja-kerja seperti yang dinyatakan). Kontraktor hendaklah menghantar terlebih dahulu borang kelulusan bahan, jaminan bahan dari pembekal termasuk insurans, lukisan binaan yang siap disahkan oleh P.E untuk semakan sebelum memulakan kerja.									
KEHENDAK-KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM									
1	1.1 1.1.1	Penyedian syarat-syarat tawaran termasuk insurans - insurans (<i>Contractor All Risk' & Workmen Compensation's</i>)		LUMP SUM	LUMP SUM				
	1.2 1.2.1	<i>Preliminaries and general.</i>		LUMP SUM	LUMP SUM				
	1.3 1.3.1	Menyediakan Laporan Kemajuan Bergambar. Laporan termasuklah gambar projek sebelum, semasa dan selepas kerja siap dan lain-lain keperluan bagi menyediakannya.		NOS	2	F.O.C	F.O.C		
CIVIL WORKS									
2	2.1.1	Kerja-kerja membuka dan mengalihkan sisa robohan siling asbestos dan kerangka (<i>fix ceiling</i> , <i>metal gutter</i> , <i>RWDP</i> serta <i>fascia board</i> sedia ada ke tempat yang ditetapkan oleh PMU.		M ²	404.24				
		Membekal dan memasang siling luar bangunan yang baharu (<i>soffit ceiling</i>) dari jenis <i>metal cladding ceiling come with complete accessories</i> berserta kerangka.		M ²	404.24				
		<i>Nota: Kerangka siling tidak perlu dipasang sekiranya rekabentuk metal cladding tersebut tidak memerlukan kerangka untuk pemasangan. Refer drawing PMU/UPPF/2024/C</i>							
		Membekal dan memasang <i>fascia board</i> yang baharu dari jenis <i>metal fascia board 1" x 8" x 1.2mm thick</i> atau setaraf.		M	243.52				
	2.1.2	Membekal dan memasang <i>colored metal flashing with nominal overall thickness 0.47mm or equivalent</i> .		M ²	109.47				
		Kerja-kerja membuka dan mengalihkan sisa robohan siling asbestos dan kerangka (<i>fix ceiling</i>) sedia ada ke tempat yang ditetapkan oleh PMU.		M ²	94.95				
		Membekal dan memasang siling dalam bangunan yang baharu dari jenis siling tetap (<i>fix asbestos ceiling</i> 3.2mm thk)		M ²	94.95				
	2.1.3	Kerja-kerja mengecat <i>prime and two coats of emulsion paint</i> .		M ²	94.95				
		Kerja-kerja membuka dan mengalihkan sisa robohan siling asbestos dan kerangka (<i>suspended ceiling</i>) sedia ada ke tempat yang ditetapkan oleh PMU.		M ²	350.63				
		Membekal dan memasang siling dalaman yang baharu berserta kerangka siling termasuk kerja-kerja mengecat <i>prime and two coats of emulsion paint</i> . Siling yang digunakan adalah dari jenis <i>Grid Suspended Ceiling 3.2mm thk. asbestos cement or equivalent</i> .		M ²	593.63				

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				(RM)	(RM)																							
	2.1.4 Kerja-kerja membuka wooden trusses serta accessories (Metal roofing sheet complete with insulation paper, chicken wire mesh, glass fibre wool and 2" x 2" wooden batten), palung air hujan beserta rain waterdown pipe (rwdp) serta mengalihkan sisa robohan sedia ada ke tempat yang ditetapkan oleh PMU. Nota: Untuk anggaran saiz bumbung, rujuk lukisan yang dilampirkan PMU/UHPPF/2024/A, PMU/UHPPF/2024/B, Shall note that the contractor need to install temporary support for M&E services, ducting etc and installation of temporary bracing / bracket for wall cladding.	Lump Sum	Lump Sum																									
	<u>Roofing Works</u> Work Notes: Roof Trusses <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">I.</td> <td><i>The contractor shall design, fabricate and deliver to site and furnish at his expenses all the necessary materials, tools, hoist, staging, temporary etc. Contractor should submit complete drawing endorsed by P.E to the PMU. For the safe and proper erection of the fabricated roof trusses (herein after called PRT) complete with rafter, batten, top and bottom chords, bracing and tie-down, struts, bearers, truss connector, straps, wall plates, connections, other associated ancillary fixing products and method and obvious items required for the work to ensure that all items act together as an integral structure that is structurally stable under all the specified combination of loading conditions, all to the approval of the PMU.</i></td> <td style="width: 10%;"></td> </tr> <tr> <td>II.</td> <td><i>The design of the PRT shall be from an approved System Provided (S.P) by JKR and fabricated by fabricator as defined and in accordance with JKR Standard Specification for Structural Steel Work 20601-0270-22 for detail section J : Structural Steel and Metal Work clause 3: Prefabricated Cold Formed Steel Roof Trusses, Standard Specification for Building Works 2020 and Architect's drawings. The List of the approved S.P is specified in the Appendix of the specification.</i></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>III.</td> <td><i>The contractor shall note that PRT shall be design to suit the ceiling, roof covering, Mechanical & Electrical (M&E) services and the whatever load deem necessary to provide the functional purpose of the building. In the case where the PRT are designed at center which do not suit or facilitate the fixing of the ceiling, the contractor shall include in his design of the PRT for any additional bearers, tie beams, ceiling joins etc. required to facilitate the ceiling panels.</i></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	I.	<i>The contractor shall design, fabricate and deliver to site and furnish at his expenses all the necessary materials, tools, hoist, staging, temporary etc. Contractor should submit complete drawing endorsed by P.E to the PMU. For the safe and proper erection of the fabricated roof trusses (herein after called PRT) complete with rafter, batten, top and bottom chords, bracing and tie-down, struts, bearers, truss connector, straps, wall plates, connections, other associated ancillary fixing products and method and obvious items required for the work to ensure that all items act together as an integral structure that is structurally stable under all the specified combination of loading conditions, all to the approval of the PMU.</i>						II.	<i>The design of the PRT shall be from an approved System Provided (S.P) by JKR and fabricated by fabricator as defined and in accordance with JKR Standard Specification for Structural Steel Work 20601-0270-22 for detail section J : Structural Steel and Metal Work clause 3: Prefabricated Cold Formed Steel Roof Trusses, Standard Specification for Building Works 2020 and Architect's drawings. The List of the approved S.P is specified in the Appendix of the specification.</i>						III.	<i>The contractor shall note that PRT shall be design to suit the ceiling, roof covering, Mechanical & Electrical (M&E) services and the whatever load deem necessary to provide the functional purpose of the building. In the case where the PRT are designed at center which do not suit or facilitate the fixing of the ceiling, the contractor shall include in his design of the PRT for any additional bearers, tie beams, ceiling joins etc. required to facilitate the ceiling panels.</i>											
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BIL		ITEM	UNIT UKURAN	KUANTITI	HARGA SEUNIT (RM)	AMAUN (RM)	
3	3.1	IV. <i>Prefabricated cold formed steel roof trusses must protected by marine condition</i>	<i>M²</i>	910.81			
		V. <i>The contractor shall ensure that all truss member located on the ducting bracket shall be protected with rubber pad to reduce the vibration caused by ducting. Rod to support ducting shall be installed on web plane member (stringer axis to decrease twisting on truss member. Drilling is strictly prohibited on all truss member. M&E services shall be installed using strap or equivalent.</i>					
		VI. <i>The contractor shall note that he shall be solely responsible for the adequancy and the sufficiency of the PRT roof truss.</i>					
		VII. <i>Rates for the PRT and rafters shall include for all necessary materials, fabricating, delivery to site, hoisting and fixing in position, all fixing accessories including holding down bolt or fast setting, all ancillary item and temporary works for the complete installation of the PRT.</i>					
		VIII. <i>PRT installation work should be supervised by appointed supplier and note that the designer shall check once installation complete.</i>					
		<u>Work Notes: Steel Roofing Sheet</u>					
		IX. <i>Supply and install approved metal roofing sheet AZ-150 complete with fastener, fixing clips and etc, fixing to roofing members, all in accordance to the manufacturers instruction and PMU approval complete with 1 layer of 50mm thick fibrewool, 1 layer of double sided bubble foil insulation with 150mm for laps as underlay. Roof covering: zinocalume metal deck with "Envioclean" finish, nominal overall thickness 0.47mm, complete with flashing fixed to metal purlins, all to refer manufacturers specification and approve by PMU (measured nett- no allowance made for laps)</i>	<i>M²</i>	945.38			

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BIL	ITEM	UNIT UKURAN	KUANTITI	HARGA SEUNIT	AMAUN	CATATAN (CADANGAN TEKNIKAL)	
				(RM)	(RM)		
<i>To dismantle existing wiring, lighting and other related works at Ruang Pejabat, Koridor, Tangga dan Tandas as below:</i>							
4.1	4.1.1 IT-SL2/Y2 (lampu parabolic 2x36 watt)	UNIT	10				
	4.1.2 IT-SL2/R2 (lampu parabolic 2x36 watt)	UNIT	7				
	4.1.3 IT-SL2/B1 (lampu parabolic 2x36 watt)	UNIT	7				
	4.1.4 IT-SL2/Y1 (lampu parabolic 2x36 watt)	UNIT	7				
	4.1.5 IT-SL2/R1 (lampu parabolic 2x36 watt)	UNIT	7				
	4.1.6 IT-SL2/R7 (lampu parabolic 2x36 watt)	UNIT	10				
	4.1.7 IT-SL2/Y7 (lampu parabolic 2x36 watt)	UNIT	8				
	4.1.8 IT-SL2/R8 (lampu emergency dan exit)	UNIT	8				
	4.1.9 IT-SL2/Y6 (lampu downlight)	UNIT	5				
	4.1.10 IT-SL2/B6 (lampu pendaflour single 36 watt)	UNIT	6				
	4.1.11 IT-SL2/R6 (lampu pendaflour single 36 watt)	UNIT	2				
	4.1.13 kipas siling dan kipas dinding (tandas)	UNIT	2				
	4.1.14 IT-SL2/B7 (lampu downlight)	UNIT	4				
Work Notes: Installation Works <i>Setiap perancangan kerja mestalah dimaklumkan kepada penyelia projek terlebih dahulu.</i>							
4.2	Melaksanakan kerja-kerja membekal dan memasang semula peralatan lampu dan kipas ekzos di ruang pejabat, koridor, tangga dan tandas. I. Semua tiub lampu pendaflour asal digantikan kepada tiub LED 20 watt dengan menggunakan perumah lampu asal.						
	4.2.1 IT-SL2/Y2 (lampu parabolic 2x20 watt LED)	UNIT	10				
	4.2.2 IT-SL2/R2 (lampu parabolic 2x20 watt LED)	UNIT	7				
	4.2.3 IT-SL2/B1 (lampu parabolic 2x20 watt LED)	UNIT	7				
	4.2.4 IT-SL2/Y1 (lampu parabolic 2x20 watt LED)	UNIT	7				

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BIL		ITEM	UNIT UKURAN	KUANTITI	HARGA SEUNIT	AMAUN		
					(RM)	(RM)		
4	4.2	4.2.5 IT-SL2/R1 (lampa parabolic 2x20 watt LED)	UNIT	7				
		4.2.6 IT-SL2/R7 (lampa parabolic 2x20 watt LED)	UNIT	10				
		4.2.7 IT-SL2/Y7 (lampa parabolic 2x20 watt LED)	UNIT	8				
		4.2.8 IT-SL2/R8 (lampa emergency dan exit asal)	UNIT	8				
		4.2.9 IT-SL2/Y6 (lampa downlight asal)	UNIT	5				
		4.2.10 IT-SL2/B6 (lampa pendaflour single 20 watt LED)	UNIT	6				
		4.2.11 IT-SL2/B6 (ekzos fan)	UNIT	4				
		4.2.12 IT-SL2/R6 (lampa pendaflour single 20 watt LED)	UNIT	2				
		4.2.13 IT-SL2/B4 (lampa parabolic 2x20 watt LED)	UNIT	6				
		4.2.14 IT-SL2/B3 (lampa parabolic 2x20 watt LED)	UNIT	6				
		4.2.15 IT-SL2/Y4 (lampa parabolic 2x20 watt LED)	UNIT	6				
		4.2.16 IT-SL2/Y3 (lampa parabolic 2x20 watt LED)	UNIT	6				
		4.2.17 IT-SL2/R3 (lampa parabolic 2x20 watt LED)	UNIT	10				
		4.2.18 IT-SL2/B2 (lampa parabolic 2x20 watt LED)	UNIT	10				
		4.2.19 IT-SL2/B7 (lampa downlight asal)	UNIT	4				
Work Notes: Installation Works								
<i>Setiap perancangan kerja mestilah dimaklumkan kepada penyelia projek terlebih dahulu.</i>								
Melaksanakan kerja-kerja pendawaian semula litar lampu dan kipas ekzos di ruang pejabat, koridor, tangga dan tandas.								
Spesifikasi kerja:								
I. Pendawaian menggunakan PVC high impact, metal trunking, PVC flexible hose								
II. Menggunakan kabel 1.5mm ² dan suis-suis baru mengikut point pendawaian asal								
III. Melaksanakan kerja-kerja ujilari setelah selesai kerja-kerja pendawaian dan pemasangan lampu								
	4.3.1	IT-SL2/Y2 (lampa parabolic 2x20 watt LED)	UNIT	10				
	4.3.2	IT-SL2/R2 (lampa parabolic 2x20 watt LED)	UNIT	7				

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BIL		ITEM	UNIT UKURAN	KUANTITI	HARGA SEUNIT	AMAUN	
					(RM)	(RM)	
4.3	4.3.3	IT-SL2/B1 (lampa parabolic 2x20 watt LED)	UNIT	7			
	4.3.4	IT-SL2/Y1 (lampa parabolic 2x20 watt LED)	UNIT	7			
	4.3.5	IT-SL2/R1 (lampa parabolic 2x20 watt LED)	UNIT	7			
	4.3.6	IT-SL2/R7 (lampa parabolic 2x20 watt LED)	UNIT	10			
	4.3.7	IT-SL2/Y7 (lampa parabolic 2x20 watt LED)	UNIT	8			
	4.3.8	IT-SL2/R8 (lampa emergency dan exit asal)	UNIT	8			
	4.3.9	IT-SL2/Y6 (lampa downlight asal)	UNIT	5			
	4.3.10	IT-SL2/B6 (lampa pendaflour single 20 watt LED)	UNIT	6			
	4.3.11	IT-SL2/B6 (ekzos fan)	UNIT	4			
	4.3.12	IT-SL2/R6 (lampa pendaflour single 20 watt LED)	UNIT	2			
	4.3.13	IT-SL2/B4 (lampa parabolic 2x20 watt LED)	UNIT	6			
	4.3.14	IT-SL2/B3 (lampa parabolic 2x20 watt LED)	UNIT	6			
	4.3.15	IT-SL2/Y4 (lampa parabolic 2x20 watt LED)	UNIT	6			
	4.3.16	IT-SL2/Y3 (lampa parabolic 2x20 watt LED)	UNIT	6			
	4.3.17	IT-SL2/R3 (lampa parabolic 2x20 watt LED)	UNIT	10			
	4.3.18	IT-SL2/B2 (lampa parabolic 2x20 watt LED)	UNIT	10			
	4.3.19	IT-SL2/B7 (lampa downlight asal)	UNIT	4			
4.4	Melaksanakan kerja-kerja membekal dan memasang bahagian-bahagian komponen sistem perlindungan kilit						
	4.4.1	Pita aluminium 25mm x 3mm	METER	40			
	4.4.2	Pelana pita aluminium 25mm	UNIT	20			
	4.4.3	Air terminal/ Vertical finial aluminium	UNIT	4			

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BIL	ITEM			UNIT UKURAN	KUANTITI	HARGA SEUNIT (RM)		AMAUN (RM)
6	6.1	6.1.1	<i>List out any additional work in conjunction to the project needs.</i> a. _____ b. _____ c. _____ d. _____ e. _____	Lump Sum	Lump Sum			
JUMLAH KESELURUHAN (RM):								
Tempoh Tanggungan Kecacatan Bagi Kerja Sebutuharga Ini Adalah Selama DUA BELAS (12) Bulan Dari Tarikh Diperakuan Siap								

TEMPOH SIAP:

TANDATANGAN PENYEBUTHARGA

TANDATANGAN SAKSI

NAMA:

NAMA:

ALAMAT:

ALAMAT:

NO. TEL:

NO. TEL:

NO. FAKS:

NO. FAKS:

TARIKH:

TARIKH: