

JABATAN KERJA RAYA MALAYSIA

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT
DICKSON, NEGERI SEMBILAN**

SENARAI KUANTITI

Kami seperti nama syarikat di bawah mengesahkan tawaran harga yang tersenarai di dalam senarai kuantiti ini adalah sama sepertimana di dalam Borang Tender yang dihasilkan di dalam sistem dan sebarang percanggahan akan menyebabkan tawaran kami ditolak.

- A. Nama Syarikat: **Nama Petender**
- B. CIDB/UPKJ/PUKONSA No.: **No.Pendaftaran Petender**
- C. Harga Tawaran: **Harga Tawaran Petender**
- D. No. Siri Tender: **JKR/DT/P/007/2024**
- E. Tarikh Cipta Senarai Kuantiti: **30/9/2024**

Senarai kuantiti ini dikeluarkan oleh BAHAGIAN KONTRAK & UKUR BAHAN. Sebarang pertanyaan boleh berhubung dengan pegawai yang menyediakan tender dan maklumat pegawai untuk dihubungi boleh didapati di laman iklan.

JABATAN KERJA RAYA MALAYSIA

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON, NEGERI SEMBILAN

SENARAI KUANTITI

No. Tender: JKR/DT/P/007/2024

RINGKASAN TENDER

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

ITEM	DESCRIPTION	PAGE NO.	AMOUNT(RM)
1.00	KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM	BQ 1 - 18/26	0.00
2.00	BLOK PENTADBIRAN	BQ 2 - 2/2	0.00
3.00	TEMBOK UTAMA DAN PAGAR KELILING	BQ 3 - 2/2	0.00
4.00	BLOK PUSAT ISLAM PPD	BQ 4 - 2/2	0.00
5.00	BLOK BILIK KULIAH A, B, C, D DAN E	BQ 5 - 12/12	0.00
6.00	BENGKEL DAN MAKMAL	BQ 6 - 8/8	0.00
7.00	KERJA-KERJA ELEKTRIK (SECARA PAKEJ)	BQ 7 - 1/1	0.00
Jumlah di bawa ke Borang Tender			-

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PORT DICKSON, NEGERI SEMBILAN**

BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description
A	GENERAL INFORMATION TO BILL OF QUANTITIES
1.0	GENERAL
1.1	The Works contained in the Contract shall include the provision of all labour, materials, constructional plant, temporary or permanent works as required in the Contract.
1.2	The Bill of Quantities shall be read in conjunction with the Conditions of Contract, the Specification and the Drawings in the Contract Documents.
1.3	The items as set out in the Bill of Quantities shall apply to the whole therewith. of the Works contained in the Contract and the Contractor shall allow for compliance with the same and for any cost incurred in connection
1.4	Headings are not comprehensive and do not necessarily reflect or modify the meaning of the items in the B.Q. The exact nature and extent of the work to be carried out shall be ascertained by reference to the Contract as a whole, in particular the Conditions of Contract, the Specification and the Drawings. It shall be read together with the relevant "Method of Payment".
1.5	The amounts inserted by the Contractor for such items shall be deemed to apply to the whole of the Works carried out under this Contract.
1.6	Each item shall be individually priced. Bulk pricing for sections, trades, groups or pages of items shall not be allowed and no subsequent claims for loss or expense and/or profit shall be entertained for failure to comply with this clause.
1.7	The rates and prices inserted in the Bill of Quantities shall include cost of the works described, all risk, liabilities and obligations set forth or implied in the Contract Document and shall be deemed to include the following, unless expressly stated otherwise: a. the provision of labour and all cost in connection therewith; b. the supply of materials, goods, equipment and storage thereof including delivery to site and all costs in connection therewith; c. taking delivery of materials, goods and equipment necessary for the Works and including those supplied by others, loading and unloading, storage and all cost in connection therewith;

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description
	d. the usage of plants and machineries and all costs in connection therewith; e. the fixing, erecting and installing or placing in position of materials, goods and equipment including around obstruction, tolerances, penetration, working space, over-breaks etc. and all costs in connection therewith; f. the provision of all temporary works and all costs in connection therewith unless separately provided for in the Bill of Quantities; g. the phasing requirement of the Works including the effect on the programming of the Works of all traffic and drainage diversions, special structural requirements, earthwork restrictions, alterations to services and street lighting (executed under the Contract or in conjunction with it) and all other requirements of the contract and all costs in connection therewith; h. all cost of testing to show proof of compliance with the Specification on materials and workmanship inclusive of samples of materials and submission of tests results. Should the frequency of testing and sampling not specified, then it shall be in accordance with the relevant Malaysian/ British Standards and Codes of Practice. Where there is no such relevant Standard Codes of Practice for reference, it shall then be as instructed by the S.O.; i. all royalties and dues which the Contractor may be required to pay; j. wastage; k. establishment charges, overheads and profit; l. whatsoever method of construction the Contractor may adopt.
1.8	Where any priced item in the B.Q. but has not been executed on site by the Contractor, the cost of such priced item shall accordingly be deducted from the Contract Sum.
1.9	All items priced shall be deemed to include compliance with the provisions of the contract, statutes, regulation, by-laws or any order or directive issued by public authority or public service company and other related legislation currently in force.

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description
2.0	MEASUREMENT
2.1	Quantities in the Bills of Quantities are measured in accordance with the Malaysian Standard Method of Measurement of Building Works (2nd Edition Metric 2000). Where departure have been made from the standards mentioned, the method adopted in the Bills shall be adhered to for the purposes of ascertaining the value of all variations and measurements.
3.0	UNPRICED ITEMS
3.1	Where any items is left unpriced, it shall be deemed that the cost of such item has been allowed for elsewhere within this document. No subsequent claims arising out of expense and / or loss incurred against such unpriced item shall be entertained.
4.0	GENERAL ATTENDANCE FOR NOMINATED SUB-CONTRACTORS AND NOMINATED SUPPLIERS
4.1	Attendance and facilities for Nominated Sub-contractors and nominated suppliers shall include: a. in the case works or services executed : for allowing the use of existing working space, access, temporary roads, erected scaffolding, sanitary, welfare and other facilities existing on Site and the provision of protection, water, electricity for lighting and clearing away rubbish and debris arising from the work; b. in the case of goods, materials or services supplied : for taking delivery, unloading, storing, protection and returning crates, cartons and packing materials, c. all as specified in the

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description
5.0	GENERAL ATTENDANCE FOR NOMINATED SUB-CONTRACTORS AND NOMINATED SUPPLIERS The rates and prices shall, unless otherwise stated, include for the costs of compliance with any restrictions imposed on the programming of the Works by the Government and Local Authorities and other relevant authorities dealing with phasing sequence of operations, method of construction, safety and health and liaison and access.
6.0	TRIALS, SAMPLES, TESTS AND INSPECTION The rates and prices shall include for a testing laboratory or laboratory approved by SIRIM, or accredited by Department of Standard Malaysia (JSM), equipment and staff for carrying out the tests, tests and the effects on the progress of the Works for the carrying out of all trials, sampling and tests whether specified in the Contract Document or otherwise in order to ensure compliance with the requirements of the Specification except where separately itemised in the Bill of Quantities.
7.0	EXISTING SERVICES AND MAINS 7.1 The Contractor shall include in his rates and prices for taking measures to locate the actual position and provide support and full protection of existing services and mains and other equipment and machineries during the progress of the Works. The Contractor shall inform the S.O. of all arrangements with all Statutory and Public Utility Authorities.
8.0	WORK UNDER WATER The rates shall include any costs arising from and in connection with the execution of work under water wherever required unless otherwise stated.
9.0	PHRASEOLOGY 9.1 Differences in the method of billing and in phraseology used in various parts of the Bills of Quantities and/or Schedule of Rates shall not be a basis of any claim for an increase in the rates and prices.

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PORT DICKSON, NEGERI SEMBILAN**

BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description																																
10.0	PROVISIONAL SUMS																																
10.1	All provisional sums included in the Bill of Quantities are intended to be approximate indications only of the amounts to be expended in respect of the work described and may be omitted entirely or substantially varied without entitling the Contractor to any claim for compensation. No part of the Contractor's overhead, expenses or profit should be included in these sums when the bill is priced unless items for profit and attendance are specifically allowed for.																																
11.0	CURRENCY OF PAYMENT																																
11.1	Pricing of the Contract shall be in Malaysian Ringgit to two decimal place. Payment to the Contractor under the Contract shall be in Malaysian Ringgit.																																
12.0	TEMPORARY DIVERSIONS																																
12.1	Work in connection with the temporary diversion and relocation of existing overhead and underground services, whether detailed in the Contract or not shall be covered by the appropriate Lump Sum Items in Bill No.1: Preliminaries and General Conditions unless separately measured in other parts of the Bill of Quantities.																																
13.0	ABBREVIATIONS																																
13.1	The following abbreviations or symbols are generally used in the Contract Document and shall be read as follows: <table><tr><td>a.</td><td>mm</td><td>:</td><td>millimetre</td></tr><tr><td>b.</td><td>m</td><td>:</td><td>metre</td></tr><tr><td>c.</td><td>m2</td><td>:</td><td>square metre</td></tr><tr><td>d.</td><td>m3</td><td>:</td><td>cubic metre</td></tr><tr><td>e.</td><td>kg</td><td>:</td><td>kilogramme</td></tr><tr><td>f.</td><td>tonne</td><td>:</td><td>metric ton</td></tr><tr><td>g.</td><td>No.</td><td>:</td><td>Number</td></tr><tr><td>h.</td><td>L.S.</td><td>:</td><td>Lump Sum</td></tr></table>	a.	mm	:	millimetre	b.	m	:	metre	c.	m2	:	square metre	d.	m3	:	cubic metre	e.	kg	:	kilogramme	f.	tonne	:	metric ton	g.	No.	:	Number	h.	L.S.	:	Lump Sum
a.	mm	:	millimetre																														
b.	m	:	metre																														
c.	m2	:	square metre																														
d.	m3	:	cubic metre																														
e.	kg	:	kilogramme																														
f.	tonne	:	metric ton																														
g.	No.	:	Number																														
h.	L.S.	:	Lump Sum																														

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK
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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description
	i. P.C. Sum : Prime Cost Sum j. P.S. : Provisional Sum k. RM : Ringgit Malaysia
14.0	SCOPE OF WORKS
14.1	The works included under this Contract comprises: BQ 1 - KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM BQ 2 - BLOK PENTADBIRAN BQ 3 - TEMBOK UTAMA DAN PAGAR KELILING BQ 4 - BLOK PUSAT ISLAM PPD BQ 5 - BLOK BILIK KULIAH A, B, C, D, DAN E BQ 6 - BENGEKL DAN MAKMAL BQ 7 - KERJA-KERJA ELEKTRIK (SECARA PAKEJ)
15.0	LOCATION OF SITE
	The site for the proposed Works is located at <u>POLITEKNIK PORT DICKSON, NEGERI SEMBILAN.</u> as shown on Drawaing No. - this space intentionally left blank -

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	Project Signboard	
A	The Contractor shall provide, erect, paint and maintain a project signboard as directed by the S.O.. The signboard shall be erected at prominent position at the Site as approved by the S.O.	-
	Site Survey And Setting Out	
B	The Contractor shall employ a licensed surveyor to carry out site surveys before commencement and setting out of the Works.	
C	For the purposed of complying with Tenaga Nasional Berhad's (TNB) requirement, the Contractor shall prepare 15 sets of pre-computation plan which comprised of the survey plan for the TNB Substation. The said pre-computation plan shall be based on the overall certified survey plan by a Licensed Land Surveyor engaged by the Contractor for the project (measured separately). The pre-computation plan shall be prepared and certified by a Licensed Land surveyor engaged by the Contrac and submitted to the S.O for approval	
	Temporary Diversion And Relocation Of Existing Overhead And Underground Services	
D	The Contractor shall enquire from the various authorities and make arrangements for the disconnection, removal, relocation and reconnection of services and pay all necessary cost and fees in connection therewith and make good all damages as specified.	
	Construction Plan	
E	The Contractor shall submit to the S.O. for his approval the following as specified: a) Programme of Works	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i> Construction Plan (cont'd) b) Method statements c) Contractor's organisation chart d) Schedules e) Quality Assurance Plan for Works Contract worth RM10 Million and above i) Provide a quality Assurance Team full time on Site for the institution, administration and maintenance of the Quality Assurance Plan and the preparation and submission of all Quality Assurance Reports as specified, throughout the duration of the contract. ii) The Contractor shall appoint a suitably qualified and experienced person to act solely as a Quality Assurance Officer full time on site to lead Quality Assurance Team. Contractor's Plan A The Contractor shall provide, erect, keep insured, maintain and remove on completion all requisite scaffolding, hoist, crane, construction plant, ladder, staging, tarpaulins, tools, vehicle, tackles and other plants and apparatus (excluding piling and pile testing equipment), as necessary for the execution of the Works as specified. Temporary Water And Power Supplies For The Works B The Contractor shall provide adequate power and water supplies for the execution of the works including paying all associated costs and fees as specified.	-
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i>	-
	Site Security	
A	The Contractor shall provide all necessary personnel and lighting for the security of the site at all times until completion of the whole Works as specified.	
	Temporary Access And Maintenance Of Existing Roads	
B	The Contractor shall provide and maintain all necessary temporary roads, culverts, tracks, bridges, et cetera for access to and within the Site as specified.	
C	The Contractor shall maintain all access including existing roads, bridges, drains, culverts, roadside furniture, and all other appurtenances and services on such roads throughout the construction period. The Contractor shall make good any above mentioned item damaged by any work carried out by him.	
D	The Contractor shall reinstate the same to their original condition to the satisfaction of S.O. And provide support and full protection of existing services and mains during the progress of the Works. The Contractor shall inform the S.O. of all arrangements with the various authorities.	
	Control Of Workmen, Plant And Machinery At Site	
E	The Contractor shall ensure the safety, healthy and welfare at work of all his workmen as specified.	
	Contractor's Temporary Accommodation And Facilities For Workmen Living On Site	
F	The Contractor shall provide and maintain all temporary accommodation including all necessary facilities and services for water supply, drainage, sanitation and lighting for his staff as specified.	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i>	-
	Contractor's Office And Storage	
A	The Contractor shall provide and maintain Contractor's office and storage on the Site in positions as approved by the S.O. and as specified.	
	Care And Protection Of Materials And Works	
B	The Contractor shall provide and maintain everything necessary for proper protection of materials and Works from any damage by weather, carelessness or otherwise. Any damage cause shall be made good at the Contracto'r own cost to the approval of the S.O.	
	Shop Drawings, Samples And Mock-ups	
C	The Contractor shall submit relevant shop drawings, samples of materials or workmanship and mock-ups units manufactutr'r's specifications, et cetera for the S.O.'s approval as specified	
	Progress Photographs	
D	The Contractor shall take progress photographs at monthly intervals or more frequently as directed by the S.O. and submit to the S.O. as specified.	
	Material Testing Laboratory And Staff	
E	The Contractor shall provide/erect a testing laboratory within the site or rent a premise or propose an accredited laboratory approved by SIRIM or accredited by Department of Standard Malaysia (JSM). The Laboratory shall be equipped with the necessary equipment and staff required to carry out the tests as identified in APPENDIX A/4 (List of Laboratory Equipment).	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i>	-
	Office Accommodation For S.O.	
A	The Contractor shall provide and maintain a site office or relocatable site office or rent a premise for the use of the JKR supervisory staff which shall meet the requirement of the JKR design as specified.	
	Telephone For S.O.	
B	The Contractor shall provide a permanent telephone at the S.O.'s site office for the sole use of the S.O. And his representatives as specified.	
	Survey Instruments And Personnel	
C	The Contractor shall provide all such instruments, equipment and survey personnel as specified until thirty (30) days after the issuance of the Certificate of Practical completion as per S.O. required.	
	Site Items For S.O./Office Equipment And Facilities	
D	The Contractor shall provide all Personal Protective Equipment required for the use of the S.O. and his supervisory staff complete as specified and complying with DOSH requirements.	
E	The Contractor shall provide suitable types of fire extinguishers as specified.	
F	The Contractor shall provide the equipment and facilities as listed as specified in APPENDIX A/2 for the use of the S.O., his representatives and staff throughout the Contract Period.	
G	The Contractor shall provide suitable transportation service by means of vehicle(s) including licensed and competent driver(s) as specified in APPENDIX A/3 throughout the duration of the original Contract Period.	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i>	-
	Safe Working Area	
A	The Contractor shall supply, erect, maintain and remove on completion of the Works, scaffolding and working platform with safety nettings, catch platforms, safety barricades, fencing, railing, screen wire netting and toe board, guardrails or board fences and sufficient illuminations, all as specified.	
B	The Contractor shall supply, erect, maintain and remove on completion of the Works, adequate, protective and security hoarding, scaffolding and working platform with safety nettings and such other safety measures necessary to ensure the safety of the workers, personnel, public and others at or within vicinity of the Site, all as specified.	
	Safety, Health And Welfare	
C	The Contractor shall ensure the safety, health and welfare at work site as specified including but not limited to: a) Provision of First Aid Kit b) Pest control including keeping the site clean and dry to prevent breeding of mosquitoes, rodents, insects and vermin of any kind. c) Fogging at regular intervals	
D	The Contractor shall employ a Site Safety and Health Officer (SHO) registered with DOSH for the entire contract period to be stationed fulltime at the site (for works exceeding RM 20 million contract value). * Delete if not applicable	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)						
	brought forward	-						
A	The Contractor shall employ a Site Safety Supervisor (SSS) registered with DOSH to be stationed a minimum of 15 hours a week at the site for the entire duration of the construction period.							
B	The Contractor shall submit 5 copies of Safety and Health Plan (S-Plan) as required in APPENDIX A/5 as specified.							
C	The Contractor shall submit 5 copies of monthly Safety and Health Report as required in APPENDIX A/6 as specified.							
D	The Contractor shall provide and maintain adequate traffic safety and control including signages, warning lights and flagmen as necessary.							
	Keeping The Site Tidy							
E	The Contractor shall make every effort to keep the Site in a reasonably clean and tidy condition for the duration of the Works as specified.							
	Coordination Of Mechanical And Electrical (M&E) Services							
F	The Contractor shall be responsible for coordinating the implementation of all M&E works as specified and appoint M&E Services Coordinator based on project cost as follows: <table><tr><td>Project Cost (RM)</td><td>Minimum Requirement Of M & E Coordinator</td></tr><tr><td>between 10 to 50 million</td><td>1 Engineer & 1 CoW</td></tr><tr><td>more than 50 million</td><td>1 Engineer & 2 CoW</td></tr></table>	Project Cost (RM)	Minimum Requirement Of M & E Coordinator	between 10 to 50 million	1 Engineer & 1 CoW	more than 50 million	1 Engineer & 2 CoW	
Project Cost (RM)	Minimum Requirement Of M & E Coordinator							
between 10 to 50 million	1 Engineer & 1 CoW							
more than 50 million	1 Engineer & 2 CoW							
CARRIED FORWARD (RM)		-						

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
A	brought forward	-
	As-built Drawings Pursuant to the terms of the Contract, the Contractor shall provide approved As-Built drawings as follows: i. Four (4) sets of As-built drawings as actually constructed pertaining to the Works including all services and facilities systems and all supporting documents such as Operation and Maintenance Manual, Testing and Commissioning Certificates ii. Four (4) sets of Digital Copies in AutoCAD (.dwg) or any other compatible format to be stored in compact discs or removable storage; and. iii. Four (4) sets of Digital Copies in Acrobat (.pdf) or any other compaible format to be stored in compact discs or removable storage. The As-Built documentation and drawings supplied shall be submitted by the Contractor to the satisfaction of the S.O as to allow for a complete understanding of the Works as they were actually built.	
B	Clearing, Cleaning And Making Good On Completion The Contractor shall clear and clean the Works including existing roads, drains bounding the Site of any debris, earth, et cetera, and make good all damages upon completion as specified.	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i>	-
	Official Visit to Overseas	
A	a) To provide and manage official visit programmer for a maximum of three (3) numbers of Government's Official / Personnel (including one (1) technical officer to attend and / or conduct Pre-Delivery Inspection, factory Evaluation Test / or conduct Pre-Delivery Inspection, factory Evaluation Test, Project Monitoring Report, Executive Reporting Meeting, Final Acceptance Test, Tranfer of Tittle or Training* at the country where the product is manufactured or/and where the programmes will be held inclusive all the related allowance and necessary expenditure for the Government's Official/ Personnel throught the programme as follows; i. Meal Allowance; ii. Transportation Cost; iii. Accommodation Cost; and iv. Other allowance claimable by the Government's Official / Personnel as per PP/WP 1.4	
B	b) The list and ranks of the Government's Official / Personnel for the official visit programme are as folows: i. Jawatan Utama Sektor Awam (JUSA) (.....no.)*; ii. J54 (.....no.)*; iii. J52 (.....no.)*; iv. J48 (.....no.)*; v. J41 (.....no.)*; vi.* and vii.*;	
C	c) The duration for the official visit for Pre-Delivery Inspection, factory Evaluation Test, Project Monitoring Report, Executive Reporting Meeting, Final Acceptance Test, Transfer of Title or Training* shall not exceed seven (7) days (not inclusive of the travelling days)	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i>	-
	Official Visit to Overseas* (cont'd)	
A	c) The duration for official visit for Pre-Delivery Inspection, factory Evaluation Test, Project Monitoring Report, Executive Reporting Meeting, Final Acceptance Test, Transfer of Title or Training* shall not exceed seven (7) days (not inclusive of the) travelling days).	
B	d) The duration of the official visit for Training are** Days (not inclusive of the travelling days).	
C	e) The Contractor shall provide all the receipts/ invoice or other relevance documentation for the assessment of the S.O. before any payment will be made to the Contractor for the expenditures made for the official visit to the overseas programme.	
D	f) If the sum priced in this item is not used either wholly or in part, the S.O. reserved the rights to deduct the amount from the Contract Sum. * Delete if not applicable ** Insert number of days	
	Form Of Contract	
E	The Contractor shall refer to the Standard Form of Contract for further information. The Contractor may price here for all the expenses involved in complying with the terms of these Clauses, otherwise such expenses are deemed to be included elsewhere.	
CARRIED FORWARD (RM)		-

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BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i> <u>Clause No. 13 - Performance Bond / Performance Guarantee Sum</u> Performance Bond A For due observance and performance of this contract the Contractor shall have to provide: i. Performance Bond in the form of an approved Bank or Insurance Guarantee equal to five percent (5%) of the contract sum to be deposited with the Government as a condition precedent to the commencement of any work under this contract. ii. The Performance Bond shall remain valid and effective for the duration as specified in the Contract. <u>Clause No. 15</u> B Insurance Against Personal Injuries And Damage To Property. <u>Clause No. 16</u> C Indemnities to Government in Respect of Claim by Workmen. <u>Clause No. 17</u> D Employee's Social Security Act, 1969. <u>Clause No. 18</u> E Insurance of Works. <u>Clause No. 22</u> F Design, Sub-clause No. 22.2 - Design Guarantee Bond Design Guarantee Bond substantially in the form of Bank Guarantee For Design Guarantee Bond (PWD DGB 1/2011) appended in the Tender Document.	-
CARRIED FORWARD (RM)		-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK
PORT DICKSON, NEGERI SEMBILAN

BQ 1 : KEHENDAK PERMULAAN DAN SYARAT-SYARAT AM

Item	Description	Amount (RM)
	<i>brought forward</i>	-
	Form Of Contract (Cont'd)	
	<u>Clause No. 35 - Materials, Goods and Workmanship</u>	
A	Opening up of work for inspection or testing of materials or goods.	
	<u>Clause No. 59 - Site Agent And Assistants</u>	
B	The Contractor shall keep constantly on the Site for the full duration of the Contract a competent, efficient, suitably qualified, experienced and good character Site Agent and his assistants in each trade as may be necessary, who must be capable of receiving instructions in Bahasa Malaysia, and in default it shall be the responsibility of the Contractor to provide replacement for them and all wages and other expenses in connection with the employment of such replacement site agent and assistants. Any directions, explanations or instructions given to such site agent by the S.O. shall be deemed to have been given to the Contractor under this contract provide all necessary superintending order.	
	- this space intetionally left blank -	
TOTAL AMOUNT (RM)		-

APPENDIX A/1A

**LIST OF ESTIMATED QUANTITY FOR S.O'S PERSONAL
PROTECTIVE EQUIPMENT (PPE)**

No.	Items	Cost of Projects			
		< RM 5 Mil	RM 5 Mil - RM 20 Mil	> RM 20 mil. – RM50 mil.	> RM 50 mil.
1	Safety Boots	5 pairs	10 pairs	15 pairs	20 pairs
2	Safety Helmets	5 pcs	10 pcs	15 pcs	20 pcs
3	Full Body Harness (for working at height) If required	If required	If required	If required	If required
4	Protective gloves	If required	If required	If required	If required
5	Safety Goggles	If required	If required	If required	If required
6	Safety Jackets of reflective type	If required	If required	If required	If required
7	Ear plugs and muffs	If required	If required	If required	If required
8	Dust masks	If required	If required	If required	If required
9	Head lamp	If required	If required	If required	If required
10	 (insert other item if required)	If required	If required	If required	If required

* The Contractor shall provide necessary space/ furniture for storage

APPENDIX A/2

LIST OF S.O.'S FACILITIES AND EQUIPMENT

- NOT APPLICABLE -

Notes:

All software to be supplied under this Contract shall be original and legal copies. The software shall be registered under the name of the Contractor. The Contractor shall submit all documentation evidence of the originality and legality of the software. The Contractor shall pay for all related license renewal fees and charges, warranty, maintaining functionality of operations for all software provided throughout the contract period.

APPENDIX A/3

LIST OF S.O.'S TRANSPORT SERVICES

-

APPENDIX A/4

LIST OF LABORATORY EQUIPMENT

-

APPENDIX A/5

REQUIREMENTS OF SAFETY AND HEALTH PLAN (S-PLAN)

1. Project Introduction
2. Management Responsibility.
3. OSH Programme.
4. Hazard Identification, Risk Assessment and Determining Control (HIRADC).
5. Safety and Health Control Form
6. Permit to Works (PTW)
7. Fire Precaution and Protection and Emergency Respond
8. Safety Operation Procedure.
9. Investigation and Incident Report
10. Occupational Safety and Health Statistic and Record.
11. Employee Health Examination
12. Safety, Health and Welfare.
13. List of Machines, Equipment and Plant.
14. Traffic Control at Construction Site.
15. Personnel Protective Equipment (PPE).

Whenever there is any dispute arise, item listed as per Prosedur Kawalan Kesihatan dan Kesihatan Pekerja JKR.PK(O).04B (Format Pelan Keselamatan dan Kesihatan Pekerjaan, S-Plan) under the latest version of Sistem Pengurusan Bersepadu (SPB), JKR shall be referred.

APPENDIX A/6

REQUIREMENTS OF SAFETY AND HEALTH REPORT

1. Introductions.
2. OSH Programme.
3. OSH Statistic and Record.
4. OSH Complaints and Notices.
5. Status of S-Plan.
6. Status of HIRADC
7. Employee and Worker's Registrations.
8. Registration of Machineries, equipment and Plants.
9. Traffic and safety controls.
10. Occupational Safety and Health Committee.

Whenever there is any dispute arise, item listed as per Prosedur Kawalan Kesihatan dan Kesihatan Pekerja JKR.PK(O).04B (Format Pelan Keselamatan dan Kesihatan Pekerjaan, S-Plan) under the latest version of Sistem Pengurusan Bersepadu (SPB), JKR shall be referred.

APPENDIX A/7

**TABLE A2 : ENVIRONMENTAL QUALITY STANDARDS TO BE COMPLIED WITH BY
THE CONTRACTOR**

Aspects	Parameter	JKR EMS Set Target	Environment Quality (Sewage) Regulations, 2009		National Water Quality Standards (NWQS)	
			Standard A	Standard B	Class IIA	Class IIB
Soil	Soil loss	Minimum earthwork Phase construction £ 6 berms/benches for slopes (£ 6m per berm) Reuse topsoil				
Water	Turbidity	≤ 200 NTU	-	-	≤ 50 NTU	
	Suspended Solid	≤ 100 mg/l	≤ 50 mg/l	≤ 100 mg/l	≤ 50 mg/l	
	Biochemical Oxygen Demand	≤ 50 mg/l	≤ 20 mg/l	≤ 50 mg/l	≤ 3 mg/l	
	Chemical Oxygen Demand (COD)	≤ 100 mg/l	≤ 120 mg/l	≤ 200 mg/l	≤ 25 mg/l	
	pH	5.5 – 9	6 – 9	5.5 – 9	9-Jun	
	E-Coli	≤ 400 counts / 100 ml	-	-	≤100 counts/ 100ml	≤400 counts / 100 ml
	Dissolved Oxygen(DO)	≥ 4 mg/l	-	-	5-7 mg/l	
	Oil and Grease	≤ 10 mg/l	≤ 5 mg/l	≤ 10mg/l	≤ 40 µg /l, N	
	Ammoniacal Nitrogen (river)	-	≤ 10 mg/l	≤ 20mg/l	≤ 0.3 mg /l	
Slip trap and sediment basin discharge	Turbidy	≤ 250 NTU				
	Total Suspended solid	≤ 50 mg/l				

APPENDIX A/7

**TABLE A2 : ENVIRONMENTAL QUALITY STANDARDS TO BE COMPLIED WITH BY
THE CONTRACTOR**

Air	Total Suspended Particulate (TSP) (24hr)	≤260 µg/m
	Particulate Matter (PM10) (24hr)	≤150 µg/m
Noise	Equivalent Noise Level (L)	Receiving Land Use (residential)
		Day time (7.00 am – 7.00 pm)
		L
		Evening (7.00 pm – 10.00 pm)
		L
		Night time (10.00 pm – 7.00 am)
		Noise Sensitive Areas : L
		Suburban Areas : L
		Urban Areas : L
Vibration	Vertical Vibration Peak Velocity (mm/s)	Not more than 3 mm/s at receiver location or across real property boundary.

Reference:

- 2nd Schedule (Regulation 7), Environmental Quality (Sewage) Regulations 2009, Environmental Quality Act 197
 - Standard A: For location with downstream water intake
 - Standard B: For location with no downstream water intake
- National Water Quality Standards for Malaysia
 - Class IIA: Water Supply II – conventional treatment required
 - Fishery II – sensitive aquatic species
 - Class IIB: Recreational use with body contact
- Recommended Malaysian Guidelines on Ambient Air Quality
- Schedule 1 & Schedule 6, Planning Guidelines for Environmental Noise Limits & Control, (DOE, 2004)
- Planning Guidelines for Vibration Limits and Control of the Environment (DOE, 2004)

Note: N - No visible floatable materials or debris or no objectionable odour, or no objectionable taste

For EIA Projects, all requirement should comply with Conditions of Approval (CoA) stipulated by DOE or other relevant authorities.

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 2 : BLOK PENTADBIRAN

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	Notes : All quantities are provisional quantity and subject to remeasurement. The Contractor shall inspect the site before submitting his tender to acquaint and ascertain for himself the nature and extent of the Works and site conditions which may affected the contract works as no extra payment subsequent upon lack of knowledge will be considered. The Contractor shall get clearance from the various authorities regarding any existing undergrounds or overhead cables, water main etc. within the site before the works commence. Prior to the commencement of any Works included in this contract and upon completion the whole of works included in this Contract, the Contractor shall arrange for the whole of site to be surveyed by a liciensed Lands Surveyors who shall submit the result to the S.O for approval. Result of the survey to be carried out prior to the commencement of any Works included in the Contract shall include a eports of survey together with survey plans clearly showing, amongst other relevant information the exact sizes and position of existing buildings and obstruction, tress, rivers, and existing infrastructure including the exact positions of any existing overhead and uunderground It is the Contractor's responsibility to satisfy himself that the information given herein are adequate and correct because no calims will be entertained on ground of inadequate or incorrect information. The filling quantities are measured based on consolidated and compacted volume and as such, the quantities of earth and granular materials brought to the site shall not reflect the actual quantities of the Bill of Quantities. The Contractor shall therefore to allow for all factors of consolidation and compaction shrinkage whatsoever the filling materials and pricing shall include all factors				
	JUMLAH DI BAWA KE BELAKANG				

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 2 : BLOK PENTADBIRAN

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.00	<u>BLOK PENTADBIRAN</u>				
1.01	Melaksanakan kerja-kerja menanggalkan semua siling gantung termasuk kerangka siling sediaada dan membuang keluar semua sisa buangan dari tapak bina dengan mengikut sepertimana arahan P.P.	M ²	1500	-	-
1.02	Membekal dan memasang siling dan kerangka baru daripada jenis yang sama yang diluluskan P.P dan lain-lain kerja berkaitan di Bilik Exam, Unit Kewangan, Bilik Fail, Bilik Persidangan, Bilik Pengarah, Bilik Air Lelaki dan Perempuan, Unit Perolehan, Jabatan Perdagangan, Unit Pentadbiran, Bilik Kualiti, Unit Komunikasi dengan mengikut spesifikasi dan arahan P.P.	M ²	1500	-	-
2.00	<u>BUMBUNG BLOK PENTADBIRAN</u>				
2.01	Kerja-kerja membina kerangka bumbung termasuk bekal dan pasang bumbung dari jenis metal deck dari jenis pisang sesikat mengikut arahan P.P atau wakilnya.	M ²	400	-	-
2.02	Kerja-kerja membuka Valley Gutter yang lama, bekal dan pasang Valley Gutter yang baru berketebalan 0.55mm dibengkokkan seperti yang dikehendaki dan dipasang mengikut arahan P.P atau wakilnya.	M	100	-	-
2.03	Kerja-kerja membuka perabung yang lama, bekal dan pasang perabung yang baru berketebalan 0.55mm dibengkokkan seperti yang dikehendaki dan dipasang mengikut arahan P.P atau wakilnya.	M	220	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 2 : BLOK PENTADBIRAN

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
2.04	Kerja-kerja memeriksa segala kebocoran pada permukaan bumbung termasuk kerja-kerja membuka paku yang lama dan mengganti dengan skru termasuk kepala getah dan di pasang mengikut arahan P.P	Harga Pukul		-	-
2.05	Melaksanakan kerja-kerja menyapu 2 lapisan kalis lembap daripada jenis <i>cementitious</i> dengan mengikut spesifikasi pembekal dan (Bahan hendaklah dibuat pengujian <i>waterproofing</i> dan mempunyai jaminan selama lima (5) tahun).	M ²	1000	-	-
3.00	<u>GALERIA PUSAT INFORMASI</u>				
3.01	Kerja-kerja menyediakan dan memasang awning bergelugur bagi keluasan melebihi 5 meter persegi termasuk 25mm tebal bingkai/rangka besi (framing) pada tempat yang diarahkan oleh P.P	M ²	50	-	-
3.02	Kerja-kerja membuka papan lama yang rosak, bekal dan mengganti papan berketebalan 12mm termasuk kerja-kerja mengecat semula dan menyediakan segala kelengkapan yang diperlukan.	M ²	5	-	-
3.03	Kerja-kerja membuka papan "cemboard" dan kerangka besi lama yang rosak, bekal dan pasang batu-bata dan kerja-kerja melepai permukaan berlubang bagi dijadikan tempat duduk termasuk kerja-kerja pemasangan jubin mengikut arahan P.P	M ³	5	-	-
3.04	Kerja-kerja pemasangan 12mm diameter besi handrail keselamatan dari keluli lembut termasuk kerja pemasangannya	M	50	-	-
	JUMLAH DI BAWA KE RINGKASAN TENDER				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 3 : TEMBOK UTAMA DAN PAGAR KELILING

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	Kontraktor diminta menyediakan tenaga mahir, peralatan, jentera, mesin, peralatan dan bahan-bahan secukupnya untuk melaksanakan kerja-kerja seperti berikut :				
1.00	<u>TEMBOK UTAMA DAN PINTU PAGAR</u>				
1.01	Pondok Pengawal Post A				
a)	Kerja-kerja membersihkan segala permukaan dinding, membuka papan tanda yang lama termasuk kerja-kerja mengecat dua lapis cat rintangan cuaca (weathershield) pada permukaan dinding luar dan dalam pondok pengawal dan tembok papan tanda mengikut arahan P.P	M ²	400	-	-
b)	Kerja-kerja membuka pintu pagar yang lama di tempat parking motor yang lama, bekal dan pasang pintu pagar baru dari jenis stainless steel termasuk segala kelengkapan pemasangan mengikut arahan P.P	M ²	10	-	-
c)	Kerja-kerja membersihkan, mengecat Tembok Identiti Politeknik kanan dan kiri di hadapan pintu masuk utama dan kerja-kerja mengemukakan cadangan rekabentuk Tembok Identiti Politeknik yang baru di tempat yang sama termasuk kerja pembinaannya Nota : Kontraktor perlu mengemukakan sekurang-kurangnya 3 cadangan shop drawing/katalog bagi kerja-kerja pemasangan papan tanda tersebut dan mendapat kelulusan P.P sebelum kerja-kerja tersebut dilaksanakan	Harga Pukul		-	-
d)	Kerja-kerja menyediakan dan memasang awning bergelugur bagi keluasan melebihi 5 meter persegi termasuk 25mm tebal bingkai/rangka besi (framing) pada tempat yang diarahkan oleh P.P	M ²	20	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 3 : TEMBOK UTAMA DAN PAGAR KELILING

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.00	<u>TEMBOK UTAMA DAN PINTU PAGAR (SAMB)</u>				
1.02	Pondok Pengawal Post B dan C				
a)	Kerja-kerja menyediakan pintu pagar dan permukaan untuk menyapu satu lapisan cat anti karat sebagai lapisan asas dan dua lapisan cat emulsi arkilik berasaskan minyak termasuk lain-lain kerja yang berkaitan	M ²	60	-	-
b)	Kerja-kerja membersihkan segala permukaan dinding, membuka papan tanda yang lama termasuk kerja-kerja mengecat dua lapis cat rintangan cuaca (weathershield) pada permukaan dinding luar dan dalam pondok pengawal dan tembok papan tanda mengikut arahan P.P	M ²	240	-	-
c)	kerja-kerja memasang semula papan tanda dari Pondok Pengawal Post A ke Pondok Pengawal Post B dan Pondok Pengawal Post C termasuk menyediakan segala kelengkapan yang diperlukan mengikut arahan P.P	Harga Pukul		-	-
2.00	<u>PAGAR KELILING</u>				
2.01	Kerja-kerja memecah tiang pagar yang lama dan dibawa keluar dari tapak bina termasuk kerja penggalian tanah untuk "footing" tiang dan beam.	Harga Pukul		-	-
2.02	Kerja-kerja membekal dan memasang pagar Hot Dipped Galvanised or Powder Coated dari jenis anti climb berukuran 3000mm tinggi termasuk papak konkrit pemegang dengan segala peralatan termasuk tiang besi dan pengikat mengikut arahan P.P	m	2230	-	-
	JUMLAH DI BAWA KE RINGKASAN TENDER				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 4 : BLOK PUSAT ISLAM PPD

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	Kontraktor diminta menyediakan tenaga mahir, peralatan, jentera, mesin, peralatan dan bahan-bahan secukupnya untuk melaksanakan kerja-kerja seperti berikut :				
1.00	<u>BLOK PUSAT ISLAM PPD</u>				
1.01	Menampal kebocoran pada bumbung dengan bahan bitumen dan kerja-kerja menukar paku baru termasuk menyediakan segala kelengkapan dan lain-lain kerja berkaitan (bumbung bawah)	No	50	-	-
1.02	Kerja-kerja membuka genting yang telah rosak dan diganti dengan yang baru termasuk membaiki kedudukan atap genting sediaada yang lama dan menyebabkan kebocoran mengikut arahan P.P	No	20	-	-
1.03	Melaksanakan kerja-kerja menyapu 2 lapisan kalis lembap daripada jenis <i>cementitious</i> dengan mengikut spesifikasi pembekal dan arahan P.P. (Bahan hendaklah dibuat pengujian <i>waterproofing</i> dan mempunyai jaminan selama lima (5) tahun).	M ²	250	-	-
1.04	Kerja-kerja membersihkan saliran gutter dan salur tegak air hujan sediaada termasuk membuang segala sampah sarap dan pokok-pokok kecil yang tumbuh mengikut arahan P.P	no	10	-	-
1.05	Kerja-kerja membuka papan manis yang lama dan rosak, bekal dan pasang papan manis yang baru termasuk menyediakan segala kelengkapan berkaitan mengikut arahan P.P	M ²	60	-	-
1.06	Kerja-kerja membekal dan memasang kepingan siling berukuran 1200mm x 600mm dengan berketebalan 12mm termasuk segala kelengkapan berkaitan mengikut arahan P.P	no	5	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 4 : BLOK PUSAT ISLAM PPD

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.00	<u>BLOK PUSAT ISLAM PPD (SAMB)</u>				
1.07	Kerja-kerja menyediakan dan memasang awning bergelugur bagi keluasan melebihi 5 meter persegi termasuk 25mm tebal bingkai/rangka besi (framing) pada tempat yang diarahkan oleh P.P	M ²	50	-	-
1.08	Kerja-kerja menyelenggara keseluruhan saliran sistem air buangan termasuk 'Floor Trap' yang tersumbat dengan kaedah menjolok dan perlu dibersihkan dengan menggunakan bahan kimia dan 'water jet' mengikut arahan P.P	Harga Pukal		-	-
1.09	Kerja-kerja membekal dan memasang paip bersaiz 25mm yang baru termasuk kerja-kerja memecah jubin dan membaiki semula kawasan yang terlibat	m	50	-	-
1.10	Membekal dan memasang penutup lurang besi tuangan berukuran 600mm x 450mm termasuk pemasangan jubin di atas penutup termasuk membaiki tapak dan lain-lain kerja yang berkaitan	no	3	-	-
	JUMLAH DI BAWA KE RINGKASAN TENDER				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON, NEGERI SEMBILAN

BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
1.00	Kontraktor diminta menyediakan tenaga mahir, peralatan, jentera, mesin, peralatan dan bahan-bahan secukupnya untuk melaksanakan kerja-kerja seperti berikut :				
	<u>BLOK BILIK KULIAH A, B, C, D DAN E</u>				
1.01	<u>BLOK KULIAH A</u>				
	<u>Bilik Kuliah A</u>				
a)	Kerja-kerja membuka pintu sediaada termasuk membaiki kerosakan pada jenang dan membawa keluar dari tapak menggunakan kelengkapan serta lain-lain kerja berkaitan.	No	12	-	-
b)	Kerja-kerja bekal dan pasang pintu baru dari jenis yang sama berukuran 1700mm lebar x 2000mm tinggi yang dilengkapi dengan aksesori bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	12	-	-
c)	Kerja mengecat pintu kayu berukuran 1700mm lebar x 2000mm tinggi dengan cat arkilik berasaskan minyak dan lock set jenis tombol bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	14	-	-
d)	Kerja-kerja bekal dan pasang grill pintu (1 daun) dari jenis M/S Steel berukuran 1700mm lebar x 2000mm tinggi termasuk kelengkapan Lock Set dan kerja-kerja mengecat menggunakan cat arkilik berasaskan minyak serta lain-lain kerja berkaitan	No	12	-	-
e)	Kerja-kerja mengecat grill pintu dari jenis M/S Steel berukuran 1700mm lebar x 2000mm tinggi dengan cat arkilik berasaskan minyak dan lock set jenis tombol bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	9	-	-
f)	Menyediakan turapan simen skrid dengan nisbah 1:3 dan membekal serta memasang kemasan jubin <i>homogenous</i> baru bersaiz 300mm x 300mm x 7.5mm di kawasan lantai daripada jenama dan warna yang diluluskan P.P dengan mengikut spesifikasi dan arahan P.P.	M ²	460	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.01	<u>BLOK KULIAH A (SAMB)</u>				
	<u>Bilik Kuliah A</u>				
g)	Kerja-kerja membuka gutter yang lama, bekal dan pasang gutter yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan termasuk pendakap mengikut spesifikasi dan arahan P.P.	M	24	-	-
h)	Kerja-kerja membuka sistem saliran air hujan yang lama, bekal dan pasang sistem saliran air hujan yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan dan menjalankan kerja memecah dan melepai semula <i>apron</i> sediaada bagi tujuan pemasangan RWDP mengikut spesifikasi dan arahan P.P.	M	24	-	-
	<u>Tandas Blok A</u>				
i)	Bekal dan pasang Tandas (W.C) <i>squatting</i> dari jenis tanah liat putih lengkap dengan <i>cistern</i> berkapasiti 9L dan berinjap bebola dan pendakap yang diskru pada dinding serta dilengkapi dengan paip penyambung <i>flexible</i> 32mm dia., perangkap dan pemijak berukuran 250mm x 125mm.	Bil	1	-	-
j)	Kerja-kerja mengganti sistem pelampung lama (toilet cistern) yang telah rosak dengan sistem pelampung yang baru dari jenis yang sama beserta kelengkapan mengikut arahan P.P	Bil	4	-	-
k)	Kerja-kerja bekal dan pasang 38mm tebal pintu tandas PVC saiz keseluruhan 875mm lebar x 2000mm tinggi termasuk engsel dan bolt penunjuk serta dipasang pada bingkai kayu	Bil	1	-	-
l)	Kerja-kerja membuka dan membaiki termasuk menyelenggara saluran kumbahan yang tersumbat dari segala sisa dan membaiki keadaan paip yang pecah dan bocor mengikut arahan P.P	Bil	9	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.02	<u>BLOK KULIAH B</u>				
	<u>Bilik Kuliah B</u>				
a)	Kerja-kerja membuka pintu sediaada termasuk membaiki kerosakan pada jenang dan membawa keluar dari tapak menggunakan kelengkapan serta lain-lain kerja berkaitan.	No	20	-	-
b)	Kerja kerja bekal dan pasang pintu baru dari jenis yang sama berukuran 1700mm lebar x 2000mm tinggi yang dilengkapi dengan aksesori bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	20	-	-
c)	Kerja mengecat pintu kayu berukuran 1700mm lebar x 2000mm tinggi dengan cat arkilik berasaskan minyak dan lock set jenis tombol bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	26	-	-
d)	Menyediakan turapan simen skrid dengan nisbah 1:3 dan membekal serta memasang kemasan jubin <i>homogenous</i> baru bersaiz 300mm x 300mm x 7.5mm di kawasan lantai daripada jenama dan warna yang diluluskan P.P dengan mengikut spesifikasi dan arahan P.P.	M ²	700	-	-
e)	Kerja-kerja membuka gutter yang lama, bekal dan pasang gutter yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan termasuk pendakap mengikut spesifikasi dan arahan P.P.	M	24	-	-
f)	Kerja-kerja membuka sistem saliran air hujan yang lama, bekal dan pasang sistem saliran air hujan yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan dan menjalankan kerja memecah dan melepai semula <i>apron</i> sediaada bagi tujuan pemasangan RWDP mengikut spesifikasi dan arahan P.P.	M	18	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.02	<u>BLOK KULIAH B (SAMB)</u>				
	<u>Tandas Blok B</u>				
g)	Kerja-kerja membuka dan membaiki termasuk menyelenggara saluran kumbahan yang tersumbat dari segala sisa dan membaiki keadaan paip yang pecah dan bocor mengikut arahan P.P	Bil	4	-	-
h)	Kerja-kerja bekai dan pasang 38mm tebal pintu tandas PVC saiz keseluruhan 875mm lebar x 2000mm tinggi termasuk engsel dan bolt penunjuk serta dipasang pada bingkai kayu	Bil	1	-	-
i)	Kerja-kerja mengganti sistem pelampung lama (toilet cistern) yang telah rosak dengan sistem pelampung yang baru dari jenis yang sama beserta kelengkapan mengikut arahan P.P	Bil	4	-	-
j)	Bekai dan pasang Tandas (W.C) <i>squatting</i> dari jenis tanah liat putih lengkap dengan <i>cistern</i> berkapasiti 9L dan berinjap bebola dan pendakap yang diskru pada dinding serta dilengkapi dengan paip penyambung <i>flexible</i> 32mm dia., perangkap dan pemijak berukuran 250mm x 125mm.	Bil	1	-	-
k)	Tandas (W.C) <i>seating</i> dari jenis tanah liat putih lengkap dengan <i>cistern</i> berkapasiti 9L dan injap bebola dengan pendakap yang diskru pada dinding dilengkapi dengan paip penyambung <i>flexible</i> 32mm dia., engsel serta <i>toilet seat cover</i> .	Bil	1	-	-
l)	Kerja-kerja mengganti kepala paip dari jenis tembaga (heavy duty) dipasang pada paip keluli atau kuprum termasuk segala kelengkapan.	Bil	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.03	<u>BLOK KULIAH C</u>				
	<u>Bilik Studio 1 & 2</u>				
a)	Kerja-kerja membuka pintu sediaada termasuk membaiki kerosakan pada jenang dan membawa keluar dari tapak menggunakan kelengkapan serta lain-lain kerja berkaitan.	No	4	-	-
b)	Kerja kerja bekal dan pasang pintu baru dari jenis yang sama berukuran 1700mm lebar x 2000mm tinggi yang dilengkapi dengan aksesori bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	4	-	-
c)	Kerja mengecat pintu kayu berukuran 1700mm lebar x 2000mm tinggi dengan cat arkilik berasaskan minyak dan lock set jenis tombol bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	4	-	-
d)	Kerja-kerja bekal dan pasang grill pintu (1 daun) dari jenis M/S Steel berukuran 850mm lebar x 2000mm tinggi termasuk kelengkapan Lock Set dan kerja-kerja mengecat menggunakan cat arkilik berasaskan minyak serta lain-lain kerja berkaitan	No	4	-	-
e)	Kerja-kerja bekal dan pasang grill pintu (2 daun) dari jenis M/S Steel berukuran 1700mm lebar x 2000mm tinggi termasuk kelengkapan Lock Set dan kerja-kerja mengecat menggunakan cat arkilik berasaskan minyak serta lain-lain kerja berkaitan	No	3	-	-
f)	Kerja mengecat grill lama berukuran 1700mm lebar x 2000mm tinggi dengan cat arkilik berasaskan minyak serta segala kelengkapan dan lain-lain kerja berkaitan.	No	24	-	-
g)	Menyediakan turapan simen skrid dengan nisbah 1:3 dan membekal serta memasang kemasan jubin <i>homogenous</i> baru bersaiz 300mm x 300mm x 7.5mm di kawasan lantai daripada jenama dan warna yang diluluskan P.P dengan mengikut spesifikasi dan arahan P.P.	M ²	220	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.03	<u>BLOK KULIAH C (SAMB)</u>				
	<u>Bilik Studio 1 & 2</u>				
h)	Kerja-kerja membuka gutter yang lama, bekal dan pasang gutter yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan termasuk pendakap mengikut spesifikasi dan arahan P.P.	M	24	-	-
i)	Kerja-kerja membuka sistem saliran air hujan yang lama, bekal dan pasang sistem saliran air hujan yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan dan menjalankan kerja memecah dan melepai semula <i>apron</i> sediaada bagi tujuan pemasangan RWDP mengikut spesifikasi dan arahan P.P.	M	18	-	-
	<u>Tandas Blok C</u>				
j)	Kerja-kerja membuka dan membaiki termasuk menyelenggara saluran kumbahan yang tersumbat dari segala sisa dan membaiki keadaan paip yang pecah dan bocor mengikut arahan P.P	Bil	4	-	-
k)	Kerja-kerja mengganti sistem bebola pelampung lama yang telah rosak dengan sistem bebola pelampung yang baru dari jenis yang sama pada tangki besar beserta kelengkapan mengikut arahan P.P	Bil	2	-	-
l)	Kerja-kerja mengganti sistem pelampung lama (toilet cistern) yang telah rosak dengan sistem pelampung yang baru dari jenis yang sama beserta kelengkapan mengikut arahan P.P	Bil	4	-	-
m)	Kerja-kerja mengganti kepala paip dari jenis tembaga (heavy duty) dipasang pada paip keluli atau kuprum termasuk segala kelengkapan.	Bil	4	-	-
n)	Kerja-kerja membuka Gully Trap yang lama, bekal dan pasang Gully trap yang baru bersaiz 150mm x 100mm termasuk segala kelengkapan yang berkaitan	Bil	4	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

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BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.04	<u>BLOK KULIAH D</u>				
	<u>Bumbung Blok Kuliah D</u>				
a)	Kerja-kerja membuka bahagian bumbung genting yang terlibat, mencuci genting dan memasang semula setelah kerja kerangka siap termasuk membuang segala sampah sarap	M ²	350	-	-
b)	Kerja-kerja membuka kerangka kayu yang telah rosak mengikut kelas yang berkaitan, bekal dan pasang kerangka kayu yang baru mengikut saiz asal menggunakan kayu dari kelas S.G 1 atau S.G 2 termasuk menyediakan segala kelengkapan yang diperlukan mengikut arahan P.P	Bil	3	-	-
c)	Kerja-kerja membekal dan memasang genting yang baru	Bil	15	-	-
d)	Kerja-kerja membekal perabung yang sepadan dengan genting yang sediaada termasuk fillet simen dan ditetulkan dengan dua lembar dawai berduri	M	35	-	-
	<u>Bilik Kuliah D</u>				
e)	Kerja-kerja membuka pintu sediaada termasuk membaiki kerosakan pada jenang dan membawa keluar dari tapak menggunakan kelengkapan serta lain-lain kerja berkaitan.	No	16	-	-
f)	Kerja kerja bekal dan pasang pintu baru dari jenis yang sama berukuran 1700mm lebar x 2000mm tinggi yang dilengkapi dengan aksesori bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	16	-	-
g)	Kerja mengecat pintu berukuran 1700mm lebar x 2000mm tinggi dengan cat arkilik berasaskan minyak dan lock set jenis tombol bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	32	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
	<u>Bilik Kuliah D (SAMB)</u>				
	<u>Bilik Kuliah D</u>				
h)	Menyediakan turapan simen skrid dengan nisbah 1:3 dan membekal serta memasang kemasakan jubin <i>homogenous</i> baru bersaiz 300mm x 300mm x 7.5mm di kawasan lantai daripada jenama dan warna yang diluluskan P.P dengan mengikut spesifikasi dan arahan P.P.	M ²	800	-	-
i)	Kerja-kerja membuka gutter yang lama, bekal dan pasang gutter yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan termasuk pendakap mengikut spesifikasi dan arahan P.P.	M	15	-	-
j)	Kerja-kerja membuka sistem saliran air hujan yang lama, bekal dan pasang sistem saliran air hujan yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan dan menjalankan kerja memecah dan melepai semula <i>apron</i> sediaada bagi tujuan pemasangan RWDP mengikut spesifikasi dan arahan P.P.	M	6	-	-
k)	Kerja-kerja membersihkan saliran gutter sediaada termasuk membuang segala sampah sarap dan pokok-pokok kecil yang tumbuh mengikut arahan P.P	M	200	-	-
l)	Membuka, menanggal dan membuang semua siling yang rosak sediaada dan membekal dan memasang siling baru jenis <i>gypsum</i> berukuran 1200mm x 600 mm x 9mm berserta kerangka baru dan lain-lain kerja berkaitan dengan mengikut spesifikasi dan arahan P.P.	M ²	400	-	-
m)	Kerja-kerja membuka tingkap sediaada termasuk membaiki kerosakan pada jenang dan membawa keluar dari tapak menggunakan kelengkapan serta lain-lain kerja berkaitan.	No	96	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
	<u>Bilik Kuliah D (SAMB)</u>				
	<u>Bilik Kuliah D</u>				
n)	Membekal dan memasang tingkap jenis 'casement' aluminium bersaiz 1.2m tinggi x 0.6m lebar dan top hung bersaiz 0.6m tinggi x 0.6m lebar termasuk kelengkapan tingkap seperti yang ditentukan termasuk memasang bingkai dan dikemasikat dengan 'Butyl Mastic Sealer' atau yang setara dan diluluskan mengikut arahan P.P atau wakilnya.	No	96	-	-
	<u>Tandas Blok D</u>				
o)	Kerja-kerja membekal dan memasang cermin muka berukuran 600mm x 500mm termasuk segala kelengkapan yang berkaitan mengikut arahan P.P atau wakilnya	Bil	2	-	-
p)	Kerja-kerja mengganti sistem pelampung lama (toilet cistern) yang telah rosak dengan sistem pelampung yang baru dari jenis yang sama beserta kelengkapan mengikut arahan P.P	Bil	8	-	-
q)	Kerja-kerja bekal dan pasang 38mm tebal pintu tandas PVC saiz keseluruhan 875mm lebar x 2000mm tinggi termasuk engsel dan bolt penunjuk serta dipasang pada bingkai kayu	Bil	1	-	-
r)	Kerja-kerja membuka floor trap yang lama, bekal dan pasang floor trap yang baru bersaiz 15cm x 15cm termasuk menyediakan segala kelengkapan mengikut arahan P.P	Bil	4	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

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BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.05	<u>BLOK KULIAH E</u>				
	<u>Bilik Kuliah E</u>				
a)	Kerja-kerja membuka pintu sediaada termasuk membaiki kerosakan pada jenang dan membawa keluar dari tapak menggunakan kelengkapan serta lain-lain kerja berkaitan.	No	37	-	-
b)	Kerja kerja bekal dan pasang pintu baru dari jenis yang sama berukuran 1700mm lebar x 2000mm tinggi yang dilengkapi dengan aksesori bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	37	-	-
c)	Kerja mengecat pintu berukuran 1700mm lebar x 2000mm tinggi dengan cat arkilik berasaskan minyak dan lock set jenis tombol bulat serta segala kelengkapan dan lain-lain kerja berkaitan.	No	37	-	-
d)	Menyediakan turapan simen skrid dengan nisbah 1:3 dan membekal serta memasang kemasan jubin <i>homogenous</i> baru bersaiz 300mm x 300mm x 7.5mm di kawasan lantai daripada jenama dan warna yang diluluskan P.P dengan mengikut spesifikasi dan arahan P.P.	M ²	1810	-	-
e)	Kerja-kerja membuka gutter yang lama, bekal dan pasang gutter yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan termasuk pendakap mengikut spesifikasi dan arahan P.P.	M	15	-	-
f)	Kerja-kerja membuka sistem saliran air hujan yang lama, bekal dan pasang sistem saliran air hujan yang baru daripada jenis UPVC berukuran 150mm dia. berserta aksesori pemasangan dan menjalankan kerja memecah dan melepai semula <i>apron</i> sediaada bagi tujuan pemasangan RWDP mengikut spesifikasi dan arahan P.P.	M	6	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.05	<u>BLOK KULIAH E (SAMB)</u>				
	<u>Bilik Kuliah E</u>				
g)	Kerja-kerja membersihkan saluran gutter sediaada termasuk membuang segala sampah sarap dan pokok-pokok kecil yang tumbuh mengikut arahan P.P	M	250	-	-
h)	Kerja-kerja membuka tingkap sediaada termasuk memperbaiki kerosakan pada jenang dan membawa keluar dari tapak menggunakan kelengkapan serta lain-lain kerja berkaitan.	No	368	-	-
i)	Membekal dan memasang tingkap jenis 'casement' aluminium bersaiz 1.2m tinggi x 0.6m lebar dan top hung bersaiz 0.6m tinggi x 0.6m lebar termasuk kelengkapan tingkap seperti yang ditentukan termasuk memasang bingkai dan dikemasikat dengan 'Butyl Mastic Sealer' atau yang setara dan diluluskan mengikut arahan P.P	No	368	-	-
j)	Kerja-kerja membekal dan memasang jerejak (grille) bersaiz 1.2m tinggi dan 0.6m lebar dari keluli lembut pada tingkap termasuk bolt dan semua kelengkapan yang perlu serta kerja-kerja mengecat	No	80	-	-
	<u>Tandas Blok E</u>				
k)	Kerja-kerja mengganti sistem pelampung lama (toilet cistern) yang telah rosak dengan sistem pelampung yang baru dari jenis yang sama beserta kelengkapan mengikut arahan P.P	Bil	3	-	-
l)	Kerja-kerja bekak dan pasang 38mm tebal pintu tandas PVC saiz keseluruhan 875mm lebar x 2000mm tinggi termasuk engsel dan bolt penunjuk serta dipasang pada bingkai kayu	Bil	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

BQ 5 : BLOK BILIK KULIAH A, B, C, D DAN E

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
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BQ 6 : BENGKEL DAN MAKMAL

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BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	Kontraktor diminta menyediakan tenaga mahir, peralatan, jentera, mesin, peralatan dan bahan-bahan secukupnya untuk melaksanakan kerja-kerja seperti berikut :				
1.00	<u>BENGKEL KEJURUTERAAN AWAM</u>				
1.01	Kerja-kerja membuka atap yang lama, perabung dan papan manis yang lama dan bawa keluar dari tapak bina mengikut spesifikasi dan arahan P.P atau wakilnya.	M ²	1300	-	-
1.02	Membekal dan memasang atap dari jenis metal deck berketebalan 0.53mm tebal atau setaraf denganya di keseluruhan bangunan termasuk membekal dan memasang perabung berserta lapisan aluminium foil dengan mengikut jenis yang sama seperti arahan P.P atau wakilnya. (Atap Metal deck yang akan digunakan adalah jenis PU FOAM dengan jaminan pembekal selama 10 tahun)	M	1300	-	-
1.03	Kerja-kerja menyapu dan mengecat kerangka bumbung besi dengan satu (1) lapisan bahan anti-rust dan dua (2) lapisan cat kilat menggunakan cat daripada jenama dan warna yang telah diluluskan oleh P.P dengan mengikut spesifikasi dan arahan P.P.	M ²	100	-	-
1.04	Kerja-kerja memotong pokok melebihi 600mm dan tidak melebihi 1200mm termasuk mengorek tunggul dan buang di tempat yang sepatutnya mengikut arahan P.P	no	6	-	-
1.05	Kerja-kerja mengikis cat yang lama, melaksanakan kerja mengecat siling gantung baru dengan dua (2) lapisan cat emulsi daripada jenama dan warna yang diluluskan P.P dan lain-lain kerja berkaitan dengan mengikut spesifikasi dan arahan P.P.	M ²	500	-	-
1.06	Kerja-kerja membuka gutter yang lama, bekak dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	130	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 6 : BENGKEL DAN MAKMAL

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
1.00	<u>BENGKEL KEJURUTERAAN AWAM (SAMB)</u>				
1.07	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metal deck yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	330	-	-
2.00	<u>JABATAN KEJURUTERAAN ELEKTRIK</u>				
2.01	Kerja-kerja bekal dan pasang grill pintu (2 daun) dari jenis M/S Steel berukuran 1700mm lebar x 2000mm tinggi termasuk kelengkapan Lock Set dan kerja-kerja mengecat menggunakan cat arkilik berasaskan minyak serta lain-lain kerja berkaitan	No	1	-	-
3.00	<u>MAKMAL KEJURUTERAAN AWAM</u>				
3.01	Kerja-kerja membuka bumbung metal deck yang terlibat, bekal dan pasang aluminium foil dan chicken netting dan memasang semula bumbung metaldek termasuk membaiki segala kebocoran	M ²	70	-	-
3.02	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	130	-	-
3.03	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metal deck yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	330	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 6 : BENGKEL DAN MAKMAL

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
4.00	<u>SETOR PUSAT</u>				
4.01	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	54	-	-
4.02	Kerja-kerja membuka salur tegak air hujan yang lama, bekal dan pasang 225mm diameter salur tegak air hujan, 1.20mm tebal dengan menggunakan sambungan pelipit dan dipasang pada dinding dengan pemegang paip atau pendakap	M	24	-	-
4.03	Kerja-kerja menyediakan dan membersihkan permukaan yang akan dilaksanakan kerja-kerja lapisan kalis lembab dari segala sampah-sarap dan habuk mengikut arahan P.P	Harga Pukul		-	-
4.04	Melaksanakan kerja-kerja menyapu 2 lapisan kalis lembap daripada jenis <i>cementitious</i> dengan mengikut spesifikasi pembekal dan arahan P.P. (Bahan hendaklah dibuat pengujian <i>waterproofing</i> dan mempunyai jaminan selama lima (5) tahun).	M ²	150	-	-
4.05	Kerja-kerja mengikis cat yang lama, melaksanakan kerja mengecat tiang dan dinding baru dengan dua (2) lapisan cat rintangan cuaca (<i>weathershield</i>) daripada jenama dan warna yang diluluskan P.P dan lain-lain kerja berkaitan dengan mengikut spesifikasi dan arahan P.P.	M ²	150	-	-
4.06	Kerja-kerja membersihkan permukaan dinding yang kotor dan berlumut menggunakan alatan waterjet mengikut arahan P.P	M ²	50	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 6 : BENGKEL DAN MAKMAL

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
5.00	<u>SETOR PERLUPUSAN</u>				
5.01	Kerja-kerja membuka atap termasuk perabung dan membawa keluar penebat yang lama dan bawa keluar dari tapak bina termasuk kerja-kerja memasang kembali atap yang lama mengikut spesifikasi dan arahan P.P atau wakilnya.	M ²	288	-	-
6.00	<u>MPW BLOK A</u>				
6.01	Kerja-kerja membuka atap laluan berbumbung sediaada, membekal dan memasang bumbung dek logam berombak untuk bumbung termasuk semua peralatan tambahan dan hendaklah mematuhi arahan pengilang	M ²	150	-	-
6.02	Kerja mengecat tiang dan kerangka bumbung sediaada dengan cat arkilik berasaskan minyak serta segala kelengkapan dan lain-lain kerja berkaitan.	M ²	50	-	-
7.00	<u>MPW BLOK B KE BLOK C</u>				
7.01	Kerja-kerja membuka atap laluan berbumbung sediaada, membekal dan memasang bumbung dek logam berombak untuk bumbung termasuk semua peralatan tambahan dan hendaklah mematuhi arahan pengilang	M ²	56	-	-
7.02	Kerja mengecat tiang dan kerangka bumbung sediaada dengan cat arkilik berasaskan minyak serta segala kelengkapan dan lain-lain kerja berkaitan.	M ²	35	-	-
8.00	<u>MPW BLOK B (PENTAGON A)</u>				
8.01	Kerja-kerja membuka atap laluan berbumbung sediaada, membekal dan memasang bumbung dek logam berombak untuk bumbung termasuk semua peralatan tambahan dan hendaklah mematuhi arahan pengilang	M ²	177	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 6 : BENGKEL DAN MAKMAL

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
8.00	<u>MPW BLOK B (PENTAGON A) (samb)</u>				
8.02	Kerja mengecat tiang dan kerangka bumbung sediaada dengan cat arkilik berasaskan minyak serta segala kelengkapan dan lain-lain kerja berkaitan.	M ²	80	-	-
9.00	<u>MAKMAL AUTO CAD JKM</u>				
9.01	Kerja-kerja membuka lantai jenis Formica yang sediaada termasuk kerja membersihkan dan menyediakan permukaan lantai bagi menerima lantai yang baru mengikut arahan P.P atau wakilnya.	M ²	400	-	-
9.02	Kerja-kerja membekal dan memasang baru CARPET TILE bersaiz 2' x 2' dengan ketebalan 0.5mm untuk lantai makmal sediada termasuk segala kelengkapan pemasangan serta lain-lain kerja berkaitan seperti arahan dan kelulusan Pegawai Penguasa.	M ²	400	-	-
10.00	<u>MAKMAL CAD/CAM</u>				
10.01	Kerja-kerja membuka lantai jenis Formica yang sediaada termasuk kerja membersihkan dan menyediakan permukaan lantai bagi menerima lantai yang baru mengikut arahan P.P atau wakilnya.	M ²	150	-	-
10.02	Kerja-kerja membekal dan memasang baru CARPET TILE bersaiz 2' x 2' dengan ketebalan 0.5mm untuk lantai makmal sediada termasuk segala kelengkapan pemasangan serta lain-lain kerja berkaitan seperti arahan dan kelulusan Pegawai Penguasa.	M ²	150	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 6 : BENGKEL DAN MAKMAL

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
11.00	<u>MAKMAL SAINS DAN BAHAN</u>				
11.01	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	90	-	-
11.02	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metaldek yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	75	-	-
12.00	<u>BENGKEL AUTOMOTIF</u>				
12.01	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	80	-	-
12.02	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metaldek yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	50	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 6 : BENGKEL DAN MAKMAL

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
13.00	<u>MAKMAL HABA BENDALIR / MAKMAL LOJI</u>				
13.01	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	100	-	-
13.02	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metaldek yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	75	-	-
14.00	<u>BENGKEL KIMPALAN</u>				
14.01	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	108	-	-
14.02	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metaldek yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	80	-	-
15.00	<u>BENGKEL MESIN</u>				
15.01	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	96	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 6 : BENGKEL DAN MAKMAL

All quantities are provisional quantity and subject to remeasurement.

BIL	BUTIRAN KERJA	UNIT	KUANTITI	KADAR (RM)	JUMLAH
	JUMLAH DARI HADAPAN				-
15.00	<u>BENGKEL MESIN (samb)</u>				
15.02	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metaldek yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	50	-	-
16.00	<u>BILIK PENSYARAH</u>				
16.01	Kerja-kerja membuka gutter yang lama, bekal dan pasang 300mm x 300mm x1.20mm tebal gutter baru dengan tepian salur berkumai dan direbat dengan menggunakan sambungan pelipat pateri termasuk pendakap pada jarak 900mm dari pusat ke pusat.	M	24	-	-
16.02	Kerja-kerja membuka siling gutter yang sediaada, bekal dan pasang siling gutter yang baru dari jenis metaldek yang sama dipasang dan diikat mengikut bentuk termasuk membaiki pemegang besi yang berkaitan mengikut spesifikasi yang ditetapkan oleh P.P atau wakilnya.	M ²	30	-	-
	JUMLAH DI BAWA KE RINGKASAN TENDER				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

ELECTRICAL SUMMARY OF TENDER

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

BIL	DESCRIPTIONS	AMOUNT
1	PRELIMINARIES	RM -
2	WIRING & FITTING	RM -
3	MSB / SSB / DB /	RM -
4	CABLES	RM -
5	EARTHING SYSTEM	RM -
6	MISCELLANEOUS	RM -
7	DELETION (-)	RM -

JUMLAH DI BAWA KE RINGKASAN TENDER RM -

* This total must agree with the total lump sum quoted in the Lampiran A3, otherwise the Quotation submitted may not be considered.

Saksi:..... Contractor's Signature:.....

Company's Chop:.....

Date :
.....

BQ 7A : PRELIMINARIES ELEKTRIK

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
1	<u>PRELIMINARIES</u> Notes: The preliminary items set out hereunder are deemed to apply to the whole of the Sub-Contract Works all as shown on the Drawings and/or described in this Bills of Quantities, and the Electrical Contractor shall allow for complying with the same and for any clause or item listed in this section which has not been included elsewhere in this section and no claims will be entertained for those unpriced clause.				
2	<u>BILLS OF QUANTITIES AND PRICING</u> The Quantities in this Bills, which form part of the Sub-Contract are provisional and shall be re-measured and valued in accordance with the Conditions Contract. Should re-measurement of the Bills of Quantities results in items being substantially reduced or totally omitted, or the overall scope of the Contract Works being reduced, the Electrical Contractor will not be reimbursed for any loss of profit. Each item in the Bills of Quantities shall be individually. priced. Priced for section, trade or group of items will not be accepted. The Bills of Quantities shall be priced in Malaysian Currency (in Malaysian Ringgit and The rates set down against each item in the Bills of Quantities shall be held to include for providing and delivering all materials including waste on materials, storage, carriage and cartage, labour, plants and equipment and everything else necessary for the due and proper completion of each item. Any item left unpriced shall be deemed to have been incorporated elsewhere in the Bills of Quantities and the Tender Sum, and no subsequent claims against such item will be considered, There shall be no alteration or amendment, specifying or submission of condition in contravention to those contained in Bills of Quantities. If such conditions are included, the tender submitted may not be considered and liable to be disqualified.				
	JUMLAH DI BAWA KE HADAPAN				-

BQ 7A : PRELIMINARIES ELEKTRIK

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
3	<u>MATERIAL AND WORKMANSHIP</u> Allow for submission of samples of materials and workmanship as the S.O.'s Representative may require for this approval before the materials are supplied and installed or workmanship are embodied in the finished works. All samples which are approved shall be retained on the site and shall represent or indicate the standard to be maintained in the execution of the works. All samples shall be cleared away when no longer so required for that purpose.	Lump	Sum	-	-
4	<u>INSPECTION, TESTING AND</u> Allow here or in the rates for the cost of carrying out inspection and tests at works, testing and commissioning of the installation and the equipment of the works as required in the relevant Specifications including providing all necessary labour, materials, transportation, appliance or equipment, electricity and fuels, and paying all fees and charges for tests carried out by others. Protect, uphold and maintain all existing and in use pipes, ducts, sewers, services mains, underground cables, etc., during the execution of the works, unless otherwise directed. During excavations, when the Electrical Contractor comes across any underground cables, pipes, etc. he shall stop work immediately and report to the S.O.'s Rep. who shall give the necessary instructions to the Electrical Contractor who shall then carry work as instructed. The Electrical contractor shall be responsible for making good all damages to the cables, pipes, etc. and shall indemnify the Government against any claims as a results of such damage.	Lump	Sum	-	-
	JUMLAH DI BAWA KE HADAPAN				-

BQ 7A : PRELIMINARIES ELEKTRIK

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
5	<u>COMPETENT PERSONS</u> The Electrical Contractor shall give or appoint a Competent Person or Competent Persons in compliance with the Electricity Regulations 1994 to provide necessary superintendence over the whole site operation for the full duration of the works and as long thereafter as the S.O.'s Representative may consider necessary for the proper fulfilment the Electrical Contractor's obligation under this works. The qualification of the Competent Persons shall be in compliance with the Electricity Regulations 1994 and approved by the S.O.'s Representative, and he shall be constantly on the site and shall devote his whole me to the superintendence of the works. He shall take responsibility for the construction, installation, testing, commissioning and operation of the whole contract. Works in compliance with the Electricity Regulations 1994 and any other laws having jurisdiction over the Contract Works. The S.O.'s Representative will be at liberty to object to and requires the Electrical Contractor to remove forthwith from the Site such Competent Person, who in the opinion of the S.O.'s Representative, misconducts himself or is incompetent or negligent in the proper considered by the S.O.'s Representative to be undesirable. The Electrical Contractor shall, upon the removal of such person thereafter replaced as soon as possible a new Competent Person in compliance with the requirement of this section.	Lump	Sum	-	-
	JUMLAH DI BAWA KE HADAPAN				-

BQ 7A : PRELIMINARIES ELEKTRIK

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
6	<u>SHOP DRAWINGS/WORKING DRAWINGS/DIALUX SIMULATION/AS BUILT DRAWING</u>				
6.1	To submit in 2 copies of shop drawing, material list, Jadual Pelaksanaan Kerja' and shall be approved by JKR before commencing work Note : Shop Drawing submit by contractor must include size of cable, trunking, conduit, quantities of cable in trunking & conduit, schematic diagram etc	Lump	Sum	-	-
6.2	To submit 3 sets printed copies of all as-built drawing as required in the relevant specifications. (3 Sets Hard Covers)'	Lump	Sum	-	-
7	<u>SERVICE AND MAINTENANCE</u> The Electrical Contractor shall make good of any defects, shrinkage and any other faults which may appear within the Defects Liability Period and comprehensive service and maintenance during the Defects Liability Period as provided in the Contract, commencing from Practical Completion of the Contract Works as certified by the S.O.'s	Lump	Sum	-	-
	JUMLAH DI BAWA KE ELECTRICAL SUMMARY OF TENDER				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7B : WIRING & FITTING

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
2	<u>WIRING & FITTING</u>				
	Note:				
i)	Cable trunking and cable tray must be in hot dipped galvanised sheet steel trunking c/w copper tape bridging and tap off in uPVC conduit c/w earthwire.				
ii)	All trunking elbows, offset and combination elbows, adaptors and tees shall be of same thickness as the straight trunking and shall be the type manufactured and supplied by the same trunking manufacturer. Any cut edges shall be painted with galvanized paint.				
iii)	Surface conduit wiring shall be in rigid high impact PVC conduit grade Heavy Duty Code No. 4421 with its associated system accessories.				
iv)	All trunking shall install complete with accessories.				
v)	The wiring throughout shall be on the "looping-in system" and no tee or other types of joints are allowed.				
vi)	All materials & works shall be carried out as per JKR specifications & requirements.				
vii)	For surface and outdoor installation, switches, switched socket outlets and unswitched socket outlets shall be of sealed or anti corrosive type.				
viii)	All quantities are provisional.				
ix)	Please refer SOA for wiring system in Appendix 1				
x)	All lighting points to light fitting in ceiling space shall use PVC coated G.S flexible conduit from junction box to light fittings.				
2.1	Lighting point using 2 x 1.5 sq.mm PVC c/w CPC and 10A SP switch				
	i) Complete with switch	nos	115	-	-
	ii) Looping circuit.	nos	220	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
2.2	Lighting point using 2 x 1.5 sq.mm PVC c/w 1.5 sq.mm PVC earthwire and 2 way / intermediate 10A SP switch. i) Complete with switch ii) Looping circuit.	nos nos	21 36	- -	- -
2.3	Lighting point using 2 x 2.5 sq.mm PVC and 20A DP switch for floodlight	nos	8	-	-
2.4	Lighting point using 2 x 2.5 sq.mm PVC c/w CPC from DB Panel Control to lighting point	nos	4	-	-
2.5	Lighting point using 2 x 1.5 sq.mm PVC c/w CPC for emergency light	nos	83	-	-
2.6	Lighting point using 2 x 1.5 sq.mm PVC c/w CPC for emergency light "KELUAR"	nos	31	-	-
2.7	Ceiling fan point using 2 x 1.5 sq.mm PVC c/w CPC 10A SP metalclad switch,fan hook and metalclad regulator mounting block.	nos	73	-	-
2.8	Wall Fan point using 2 x 1.5sq.mm PVC c/w CPC c/w 10A SP switch, ceiling rose, accessories etc	nos	13	-	-
2.9	Exhaust Fan point using 2 x 1.5mm PVC c/w CPC c/w ceiling rose and 20A double pole	nos	15	-	-
2.10	Exhaust Fan point using 2 x 2.5mm PVC c/w CPC c/w ceiling rose and 20A double pole	nos	6	-	-
2.11	Power point using 2 x 2.5 sq.mm PVC c/w CPC and :- a) 1 gang 13A 3 pin switch socket outlet. b) 2 gang 13A 3 pin switch socket outlet.	nos nos	2 2	- -	- -
2.12	Power point using 2 x 4 sq.mm PVC c/w CPC and :- a) 1 gang 13A 3 pin switch socket outlet. b) 2 gang 13A 3 pin switch socket outlet.	nos nos	33 154	- -	- -
2.13	Aircond point using 2 x 4 sq.mm PVC c/w CPC c/w 15A S.S.O & 20A 2 Pole switch with lamp indicator	nos	29	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
2.14	Aircond point using 2 x 6 sq.mm PVC cw 6 sq.mm PVC earthwire cw D.O.L Starter for 3HP AC cw 2 pole 30A isolator switch polycarbonate enclosure (IP66)	nos	11	-	-
2.16	Isolator point using 4 x 10sq.mm PVC cw 10 sq.mm PVC earthwire c/w 30A 4P isolator switch polycarbonate enclosure (IP66)	nos	10	-	-
2.17	Emergancy Stop Button (EPS) point using 2 x 2.5sq.mm PVC from SSB Power Bengkel kayu to EPS point c/w EPS switch	nos	4	-	-
	UNDERFLOOR DUCTING SYSTEM				
	a) Supply and Install and testing of underfloor ducting for distribution of power b) Price quoted shall include hacking, making good area and render etc as per specification. c) Actual quantities and meter shall be measured on site and length adjusted				
2.18	Power point using 2 x 4.0 sq.mm PVC c/w 4.0sq.mm PVC earthwire and :- a) 2 gang 13A 3 pin switch socket outlet.	nos	5	-	-
2.19	Single Compartment heavy duty gauge super high impact Upvc with min. 3.2mm thickness for 3 way 100mm(W) x 25mm(H) x 3.2mm(T) c/w suitable fixing clip, jointing sleeve, etc (approximately 30m length)	lot	1	-	-
2.20	Supply and install 3 compartment 300mm (L) x 300mm (W) x 56mm(H) Junction Box c/w	nos	6	-	-
2.21	Supply and install 3 compartment 250mm(L) x 250(W) x 50mm(H) Vertical Access Box c/w	nos	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7B : WIRING & FITTING

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
	To supply, deliver, install, testing & commissioning of the following fittings as specified to affect the complete installation. Note : i) Other than rust proof luminaires, all other luminaires (whether recessed or surfaced mounting, together with all its related installation accessories i.e. steel wires, suspension rods) shall undergo anti corrosive treatment process as per 17.6. (L-S1) ii) Special Treatment For Housings Of Electrical Items Used In Salt-Sprayed Environment as per 17.6 L-S1 shall be applied. iii) All fans shall be of rust proof type. Anti corrosive treatment for ceiling fan shall be similar to luminaires. Special Treatment For Housings Of Electrical Items Used In Salt-Sprayed Environment as per 17.6 shall be applied. iv) T8 LED fitting shall be c/w self ballasted T8 LED (built-in driver), tubes, G13 lamp cap etc. v) All material must be of JKR and Suruhanjaya Tenaga/SIRIM approved type. vi) T8 LED tubes minimum requirements > 2000 lumen, efficacy >110 lm/W, lifetime > 50,000 hours, PF > 0.9 vii) Prices quoted shall include labours, mechnary, transportation and making good to make the works complete. viii) All quantities are provisional				
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
JUMLAH DARI HADAPAN					-
2.22	1 x ≥150WLED Highbay IP65, ≥170 lm/w, aluminium die-cast body with epoxy powder coating, wide beam angle, include with all accessories , hook, safety cable, chain etc (Note : contractor/supplier are compulsory to submit lighting simulation before commencing	nos	8	-	-
2.23	1 x ≤18W LED T8 fitting channel type c/w tube	nos	11	-	-
2.24	1 x ≤10W LED T8 fitting channel type c/w tube	nos	16	-	-
2.25	2 x ≤18W T8 LED 600mm x 1200mm recessed mounted mirror louvre fitting c/w tube	nos	319	-	-
2.26	2 x ≤18W T8 LED 600mm x 1200mm surface mounted mirror louvre fitting c/w tube	nos	17	-	-
2.27	1 x 50W-60W SMD flat panels 1200mm x 600mm ceiling recessed mounting suspension mounting luminare, c/w Edge lit design and optical patern light guide engineered for even light distribution, SDCM<providing consistent light colour quality UGR 19(Unified glare rating), flicker free driver power factor> 0.9 advance aluminium heat sink dissipates unwated heat allowing for flat from factor c/w 1200mmx 600mm aluminium ceiling recessed mounting bracket with polister epoxy powder coating white	nos	14	-	-
2.28	60" diameter ceiling fan c/w safety thermal fuse, suspended rod and speed regulator.	nos	73	-	-
2.29	16" dia. wall fan c/w oscilation control etc	nos	13	-	-
2.30	300mm Wall Mounted Exhaust Fan c/w auto shutter including provide openings at wall, frame, patch up, and repaint the affected areas	nos	15	-	-
2.31	Switch Panel for light/fan/ssr/regulator/ac switch c/w metalclad panel	nos	10	-	-
JUMLAH DI BAWA KE HADAPAN					-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
2	<u>WIRING & FITTING</u> Note: i) Cable trunking and cable tray must be in hot dipped galvanised sheet steel trunking c/w copper tape bridging and tap off in uPVC conduit c/w earthwire. ii) All trunking elbows, offset and combination elbows, adaptors and tees shall be of same thickness as the straight trunking and shall be the type manufactured and supplied by the same trunking manufacturer. Any cut edges shall be painted with galvanized paint. iii) Surface conduit wiring shall be in rigid high impact PVC conduit grade Heavy Duty Code No. 4421 with its associated system accessories. iv) All trunking shall install complete with accessories. v) The wiring throughout shall be on the "looping-in system" and no tee or other types of joints are allowed. vi) All materials & works shall be carried out as per JKR specifications & requirements. vii) For surface and outdoor installation, switches, switched socket outlets and unswitched socket outlets shall be of sealed or anti corrosive type. viii) All quantities are provisional. ix) Please refer SOA for wiring system in Appendix 1				
2.1	Lighting point using 2 x 1.5 sq.mm PVC c/w CPC and 10A SP switch				
	i) Complete with switch	nos	115	-	-
	ii) Looping circuit.	nos	220	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
2.2	Lighting point using 2 x 1.5 sq.mm PVC c/w 1.5 sq.mm PVC earthwire and 2 way / intermediate 10A SP switch. i) Complete with switch ii) Looping circuit.	nos nos	21 36	- -	- -
2.3	Lighting point using 2 x 2.5 sq.mm PVC and 20A DP switch for floodlight	nos	8	-	-
2.4	Lighting point using 2 x 2.5 sq.mm PVC c/w CPC from DB Panel Control to lighting point	nos	4	-	-
2.5	Lighting point using 2 x 1.5 sq.mm PVC c/w CPC for emergency light	nos	83	-	-
2.6	Lighting point using 2 x 1.5 sq.mm PVC c/w CPC for emergency light "KELUAR"	nos	31	-	-
2.7	Ceiling fan point using 2 x 1.5 sq.mm PVC c/w CPC 10A SP metalclad switch,fan hook and metalclad regulator mounting block.	nos	73	-	-
2.8	Wall Fan point using 2 x 1.5sq.mm PVC c/w CPC c/w 10A SP switch, ceiling rose, accessories etc	nos	13	-	-
2.9	Exhaust Fan point using 2 x 1.5mm PVC c/w CPC c/w ceiling rose and 20A double pole	nos	15	-	-
2.10	Exhaust Fan point using 2 x 2.5mm PVC c/w CPC c/w ceiling rose and 20A double pole	nos	6	-	-
2.11	Power point using 2 x 2.5 sq.mm PVC c/w CPC and :- a) 1 gang 13A 3 pin switch socket outlet. b) 2 gang 13A 3 pin switch socket outlet.	nos nos	2 2	- -	- -
2.12	Power point using 2 x 4 sq.mm PVC c/w CPC and :- a) 1 gang 13A 3 pin switch socket outlet. b) 2 gang 13A 3 pin switch socket outlet.	nos nos	33 154	- -	- -
2.13	Aircond point using 2 x 4 sq.mm PVC c/w CPC c/w 15A S.S.O & 20A 2 Pole switch with lamp indicator	nos	29	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
2.14	Aircond point using 2 x 6 sq.mm PVC cw 6 sq.mm PVC earthwire cw D.O.L Starter for 3HP AC cw 2 pole 30A isolator switch polycarbonate enclosure (IP66)	nos	11	-	-
2.16	Isolator point using 4 x 10sq.mm PVC cw 10 sq.mm PVC earthwire c/w 30A 4P isolator switch polycarbonate enclosure (IP66)	nos	10	-	-
2.17	Emergancy Stop Button (EPS) point using 2 x 2.5sq.mm PVC from SSB Power Bengkel kayu to EPS point c/w EPS switch	nos	4	-	-
	UNDERFLOOR DUCTING SYSTEM				
	a) Supply and Install and testing of underfloor ducting for distribution of power b) Price quoted shall include hacking, making good area and render etc as per specification. c) Actual quantities and meter shall be measured on site and length adjusted				
2.18	Power point using 2 x 4.0 sq.mm PVC c/w 4.0sq.mm PVC earthwire and :- a) 2 gang 13A 3 pin switch socket outlet.	nos	5	-	-
2.19	Single Compartment heavy duty gauge super high impact Upvc with min. 3.2mm thickness for 3 way 100mm(W) x 25mm(H) x 3.2mm(T) c/w suitable fixing clip, jointing sleeve, etc (approximately 30m length)	lot	1	-	-
2.20	Supply and install 3 compartment 300mm (L) x 300mm (W) x 56mm(H) Junction Box c/w	nos	6	-	-
2.21	Supply and install 3 compartment 250mm(L) x 250(W) x 50mm(H) Vertical Access Box c/w	nos	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
	JUMLAH DARI HADAPAN				-
	To supply, deliver, install, testing & commissioning of the following fittings as specified to affect the complete installation. Note : i) Other than rust proof luminaires, all other luminaires (whether recessed or surfaced mounting, together with all its related installation accessories i.e. steel wires, suspension rods) shall undergo anti corrosive treatment process as per 17.6. (L-S1) ii) Special Treatment For Housings Of Electrical Items Used In Salt-Sprayed Environment as per 17.6 L-S1 shall be applied. iii) All fans shall be of rust proof type. Anti corrosive treatment for ceiling fan shall be similar to luminaires. Special Treatment For Housings Of Electrical Items Used In Salt-Sprayed Environment as per 17.6 shall be applied. iv) T8 LED fitting shall be c/w self ballasted T8 LED (built-in driver), tubes, G13 lamp cap etc. v) All material must be of JKR and Suruhanjaya Tenaga/SIRIM approved type. vi) T8 LED tubes minimum requirements > 2000 lumen, efficacy >110 lm/W, lifetime > 50,000 hours, PF > 0.9 vii) Prices quoted shall include labours, mechnary, transportation and making good to make the works complete. viii) All quantities are provisional				
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7B : WIRING & FITTING
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate (RM)	Amount (RM)
JUMLAH DARI HADAPAN					-
2.22	1 x ≥150W LED Highbay IP65, ≥170 lm/w, aluminium die-cast body with epoxy powder coating, wide beam angle, include with all accessories , hook, safety cable, chain etc (Note : contractor/supplier are compulsory to submit lighting simulation before commencing	nos	8	-	-
2.23	1 x ≤18W LED T8 fitting channel type c/w tube	nos	11	-	-
2.24	1 x ≤10W LED T8 fitting channel type c/w tube	nos	16	-	-
2.25	2 x ≤18W T8 LED 600mm x 1200mm recessed mounted mirror louvre fitting c/w tube	nos	319	-	-
2.26	2 x ≤18W T8 LED 600mm x 1200mm surface mounted mirror louvre fitting c/w tube	nos	17	-	-
2.27	1 x 50W-60W SMD flat panels 1200mm x 600mm ceiling recessed mounting suspension mounting luminare, c/w Edge lit design and optical patern light guide engineered for even light distribution, SDCM<providing consistent light colour quality UGR 19(Unified glare rating), flicker free driver power factor> 0.9 advance aluminium heat sink dissipates unwated heat allowing for flat from factor c/w 1200mmx 600mm aluminium ceiling recessed mounting bracket with polister epoxy powder coating white	nos	14	-	-
2.28	60" diameter ceiling fan c/w safety thermal fuse, suspended rod and speed regulator.	nos	73	-	-
2.29	16" dia. wall fan c/w oscilation control etc	nos	13	-	-
2.30	300mm Wall Mounted Exhaust Fan c/w auto shutter including provide openings at wall, frame, patch up, and repaint the affected areas	nos	15	-	-
2.31	Switch Panel for light/fan/ssr/regulator/ac switch c/w metalclad panel	nos	10	-	-
JUMLAH DI BAWA KE HADAPAN					-

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

**JUMLAH DI BAWA KE ELECTRICAL
SUMMARY OF TENDER**

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7C : MBSB / SSB / DB

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
3	<u>MSB / SSB / DB /</u> a) All MSB / SSB / DB shall be fabricated accordance and in compliance with Spec. LS1 (Jan 2018) Section 17.0 b) All MSB / SSB / DB shall be of stainless steelmaterial (Grade SS 316). c) All screws and nuts shall be of brass / stainless steel d) All materials and works shall be carried out as per JKR specifications and requirements. e) Contractor must visit with switchboard manufacturer to follow existing incoming & outgoing breaker position To supply, install, testing and commissioning of the following STAINLESS STEEL (Grade SS316)SWITCH BOARD(s) c/w termination etc.as per specification no i. All switchgears shall be rated at 50 kA, 400V for 1 sec. ii. Comprehensive catalogues of the component & functional units SSB offered are to be iii. Tender with incomplete catalogue and specifications will be rejected.				
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN

BQ 7C : MBSB / SSB / DB

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.1	Wall mounted Stainless steel SS 316 Sub Switch Board (SSB) Pentadbiran Aras 1 c/w : a) 1 no. 250A TPN MCCB at Incoming c/w adjustable time delay c/w 4 nos Current Transformer 10P10, combine IDMT Earth Fault / Over Current Relay and Shunt Trip - 1 no and calibrate by registered service engineer b) 1 no. 150A TPN SSB WING A c) 1 no. 150A TPN SSB WING B d) 1 no. 60A TPN MCCB "SPARE" e) 1 no. 60A SPN MCCB "SPARE" f) Digital power meter g) Termination parallel incoming underground cable. h) 50mm x 6mm tinned copper earth bar with M6 bolt and nuts. i) 3 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w 3 + 1 SPD Cat.C, failure indicating lamp I _{max} 65kA, I _n 20kA, UP ≤ 2KV j) 4 x 30mm x 6mm tinned copper busbar c/w interconnecting wires and other necessary accessories for complete installation	lot	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.2	Wall mounted Stainless steel SS 316 existing Sub Switch Board (SSB) Pentadbiran c/w : a) 1 no. 200A TPN MCCB at Incoming c/w adjustable time delay c/w 4 nos Current Transformer 10P10, combine IDMT Earth Fault / Over Current Relay and Shunt Trip - 1 no and calibrate by registered service engineer b) 1 no. 60A TPN MCCB "DB P LIBRARY" c) 1 no. 60A TPN MCCB "DB L LIBRARY" d) 1 no. 60A TPN MCCB "DB AHU" e) 1 no. 60A SPN MCCB "DB L RUANG LEGAR ADMIN" f) 1 no. 60A SPN MCCB "DB P RUANG LEGAR ADMIN" g) 1 no. 60A SPN MCCB "DATARAN PELAJAR" h) 1 no. 40A SPN MCCB "EXISTING" (to be named later) i) 1 no. 40A SPN MCCB "EXISTING" (to be named later) j) Digital power meter k) Termination parallel incoming underground cable. l) 50mm x 6mm tinned copper earth bar with M6 bolt and nuts. m) 3 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w 3 + 1 SPD Cat.C, failure indicating lamp I _{max} 65kA, I _n 20kA, UP ≤ 2KV n) 4 x 25mm x 6mm tinned copper busbar c/w interconnecting wires and other necessary accessories for complete installation	lot	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.3	Wall mounted Stainless steel SS 316 Sub Switch Board (SSB) Wing A c/w : a) 1 no. 150A TPN MCCB at Incoming c/w adjustable time delay ELR and ZCT & Shunt Trip and calibrate by registered service engineer b) 1 no. 60A TPN MCCB DB " L PENTADBIRAN" c) 1 no. 60A TPN MCCB DB " P PENTADBIRAN" d) 1 no. 60A TPN MCCB DB " AC PENTADBIRAN" e) 1 no. 60A TPN MCCB DB " L PERDAGANGAN" f) 1 no. 60A TPN MCCB DB " P PERDAGANGAN" g) 1 no. 60A TPN MCCB DB " AC PERDAGANGAN" h) 1 no. 60A SPN MCCB DB " SPOTLIGHT" h) 1 no. 60A TPN MCCB "SPARE" i) Digital power meter j) Termination parallel incoming underground cable. k) 25mm x 6mm tinned copper earth bar with M6 bolt and nuts. l) 3 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w 3 + 1 SPD Cat.C, failure indicating lamp I _{max} 65kA, I _n 20kA, UP ≤ 2KV m) 4 x 25mm x 6mm tinned copper busbar c/w interconnecting wires and other necessary accessories for complete installation	lot	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.4	Wall mounted Stainless steel SS 316 Sub Switch Board (SSB) Wing B c/w : a) 1 no. 150A TPN MCCB at Incoming c/w adjustable time delay ELR (7 mode memory) and ZcT & Shunt Trip and calibrate by registered service engineer b) 1 no. 60A TPN MCCB DB "L KEW/PENGARAH" c) 1 no. 60A TPN MCCB DB "P KEW/PENGARAH" d) 1 no. 60A TPN MCCB DB ' "AC KEW/PENGARAH" e) 1 no. 60A TPN MCCB DB "L PEP / UKK / UJKA" f) 1 no. 60A TPN MCCB DB ' "P PEP / UKK / UJKA" g) 1 no. 60A TPN MCCB DB ' "AC PEP / UKK / UJKA" h) 1 no. 60A SPN MCCB DB ' "AC SERVER" i) 1 no. 60A SPN MCCB DB ' "POWER SERVER" j) 1 no. 60A TPN MCCB "SPARE" k) Digital power meter l) Termination parallel incoming underground cable. m) 25mm x 6mm tinned copper earth bar with M6 bolt and nuts. n) 3 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w 3 + 1 SPD Cat.C, failure indicating lamp I _{max} 65kA, I _n 20kA, UP ≤ 2KV o) 4 x 25mm x 6mm tinned copper busbar c/w interconnecting wires and other necessary accessories for complete installation	lot	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.5	Floor mounted FRONT & REAR ACCESS Stainless steel SS 316 Main Switch Board (MSB) Form 2b BENGKEL KAYU (ALL INCOMING MCCB AND OUTGOING MCCB SHALL PROVIDED WITH DIRECT ROTARY HANDLE WITH PADLOCKING FACILITIES) : a) 1 no. 600A 4P MCCB at Incoming c/w 4 nos Current Transformer 10P10, IDMT Earth Fault / Over Current Relay and Shunt Trip - 1 no b) 1no. 400A TPN MCCB SSB POWER BENGKEL KAYU c) 1 no. 60A TPN DB "L BENGKEL KAYU" d) 1 no. 100A TPN MCCB "DB PK6" e) 1 no. 40A SPN MCCB "DB K6" f) 1 no. 40A SPN MCCB "DB K7" g) 1 no. 40A SPN MCCB "DB K5" h) 1 no. 60A TPN MCCB "PK5" i) 1 no. 80A TPN MCCB "COMPRESSOR" m) Digital power meter n) 50mm x 6mm tinned copper earth bar with M6 bolt and nuts. o) 3 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w 3 + 1 SPD Cat.C, failure indicating I amp I _{max} 65kA, I _n 20kA, UP ≤ 2KV p) 4 x 75mm x 6mm tinned copper busbar c/w interconnecting wires and other necessary accessories for complete installation	lot	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.6	Wall mounted Stainless steel SS 316 Sub Switch Board (SSB) POWER BENGKEL KAYU (ALL INCOMING MCCB AND OUTGOING MCCB SHALL PROVIDED WITH DIRECT ROTARY HANDLE WITH PADLOCKING FACILITIES) c/w : a) 1 no. 400A TPN MCCB at Incoming c/w 4 nos Current Transformer 10P 10 IDMT Earth Fault / Over Current Relay and Shunt Trip - 1 no b) 1no. 400A 4P de-energised contactor coil to centralised EPS Button c/w relay, push button etc c) 1 no. 40A TPN "ISOLATOR 1" d) 1 no. 40A TPN "ISOLATOR 2" e) 1 no. 40A TPN "ISOLATOR 3" f) 1 no. 40A TPN "ISOLATOR 4" g) 1 no. 40A TPN "ISOLATOR 5" h) 1 no. 40A TPN "ISOLATOR 6" i) 1 no. 40A TPN "ISOLATOR 7" j) 1 no. 40A TPN "ISOLATOR 8" k) 1 no. 40A TPN "ISOLATOR 9" l) 1 no. 40A TPN "ISOLATOR 10" m) 1 no. 40A TPN "SPARE" n) 1 no. 60A TPN DB "POWER" o) 3 no. RCCB 2 Pole (30mA type A), 12 no MCB 20A p) 3 no. 40A 2 POLE RCCB (100 mA), 20 no. 20A MCB q) 1 no 60A TPN MCCB c/w interconnecting wiring r) Digital power meter s) 50mm x 6mm tinned copper earth bar with M6 bolt and nuts. t) 3 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w 3 + 1 SPD Cat.C, failure indicating lamp I _{max} 65kA, I _n 20kA, UP ≤ 2KV u) 4 x 50mm x 6mm tinned copper busbar c/w interconnecting wires and other necessary accessories for complete installation	lot	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
	<u>DISTRIBUTION BOARD (DB)</u>				
	To supply, install, test and commission wall mounted Stainless Steel SS316 DB c/w bracket and including all cable terminations as per specification :				
3.7	Stainless steel SS 316 DB for: i. DB L PENTADBIRAN iii. DB L KEW / PENGARAH iii. DB L PEP / UKK / UJKA a) 10 way TPN MCB DB b) 3 no. 40A 2 POLE RCCB (100 mA) c) 1 no 40A TPN MCCB c/w interconnecting wiring	lot	3	-	-
3.8	Stainless steel SS 316 DB for: i. DB AC PERDAGANGAN ii. DB AC PENTADBIRAN iii. DB AC KEW / PENGARAH iv. DB AC PEP / UKK / UJKA v. DB FF BLOK D vi. DB L GF (BLOK KULIAH B) a) 8 way TPN MCB DB b) 3 no. 40A 2 POLE RCCB (100 mA) c) 1 no 40A TPN MCCB c/w interconnecting wiring	lot	6	-	-
3.9	Stainless steel SS 316 DB for: i. DB P PERDAGANGAN ii. DB FF P BLOK D a) 8 way TPN MCB DB b) 3 no. 40A 2 POLE RCCB TYPE A (30 mA) c) 1 no 40A TPN MCCB c/w interconnecting wiring	lot	2	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.10	Stainless steel SS 316 DB P for Power : i. DB P PENTADBIRAN ii. DB P KEW / PENGARAH iii. DB P PEP / UKK / UJKA a) 10 way TPN MCB DB b) 3 no. 40A 2 POLE RCCB TYPE A (30 mA) c) 1 no 40A TPN MCCB c/w interconnecting wiring d) 3 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w 3 + 1 SPD Cat.C, failure indicating lamp Imax 40kA, In 10kA UP 1.5kv (SPD compartment shall be install saperated with DB)	lot	3	-	-
3.11	Stainless steel SS 316 DB for: i. DB P GF (BLOK KULIAH B) a) 8 way TPN MCB DB b) 3 no. 40A 2 POLE RCCB TYPE A (30 mA) c) 1 no 40A TPN MCCB c/w interconnecting wiring	lot	1	-	-
3.12	Stainless steel SS 316 DB for: i. DB L PERDAGANGAN a) 12 way TPN MCB DB b) 3 no. 40A 2 POLE RCCB (100 mA) c) 1 no 40A TPN MCCB c/w interconnecting wiring	lot	1	-	-
3.13	Stainless steel SS 316 DB for: i. DB L BENGKEL KAYU a) 8 way TPN MCB DB b) 3 no. 40A 2 POLE RCCB (100 mA) c) 1 no 40A TPN MCCB c/w interconnecting wiring	lot	1	-	-
3.14	Stainless steel SS 316 DB L for Spotlight : i) Pejabat a) 5 way SPN MCB DB b) 1 nos. 40A DP RCCB (100mA) c) 1 no. 40A SPN MCCB c/w interconnecting wiring d) 1 no DP Changeover Switch e) 1 no. DP contactor c/w timer (time switch with 24hrs spring reserve) by pass switch, MCB & Indicator lamp	lot	1	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**
BQ 7C : MBSB / SSB / DB
(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
3.15	Stainless steel SS 316 DB PONDOK PENGAWAL B : a) 10 way SPN MCB DB b) 1 nos. 40A DP RCCB (100mA) 1 nos. 40A DP RCCB (30mA) c) 1 no. 40A SPN MCCB c/w interconnecting wiring interconnecting wiring d) 1 no DP Changeover Switch e) 1 no. DP contactor c/w timer (time switch with 24hrs spring reserve) by pass switch, MCB & Indicator lamp	lot	1	-	-
3.16	Stainless steel SS 316 BILIK SERVER (POWER) : a) 8 way SPN MCB DB b) 1 nos. 40A DP RCCB TYPE A (30mA) c) 1 no. 40A SPN MCCB c/w interconnecting wiring d) 1 no. SWITCH FUSE (rating to SPD manufacturer specs) c/w L-N, N-E SPD Cat.C, failure indicating lamp I _{max} 40kA, In 10kA UP 1.5kv (SPD compartment shall be install saperated with DB)	lot	1	-	-
3.17	Stainless steel SS 316 BILIK SERVER (AC) : a) 4 way SPN MCB DB b) 1 nos. 40A DP RCCB (100mA) c) 1 no. 40A SPN MCCB c/w interconnecting wiring d) 1 no DP Changeover Switch e) 1 no. DP contactor c/w timer (time switch with 24hrs spring reserve) by pass switch, MCB & Indicator lamp	lot	1	-	-
	JUMLAH DI BAWA KE ELECTRICAL SUMMARY OF TENDER				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7D : CABLES

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
4	<u>CABLES</u> <u>SUBMAIN IN TRUNKING</u> <u>Note:</u> a) All trunking/cable tray must be hot dipped galvanised sheet steel trunking b) All cables wires and earthing tape must be of copper type c) All submains cables shall be PVC insulated and earth continuity shall be colour coded green and installed in all trunkings d) All trunking/cable tray joints shall be provide with copper tape bridging of 3mm x 25mm. e) All hot dipped galvanised sheet steel trunking/ cable tray shall be in accordance and in compliance with Spec.LS1(Jan2018) Item 9.4,9.5 f) All quantities are provisional				
4.1	4 x 16sq.mm PVC in trunking c/w 16sq.mm PVC CPC from:- a) From SSB Kuliah D to DB L FF b) From SSB Kuliah D to DB P FF c) From SSB Kuliah B to DB GF L d) From SSB Kuliah B to DB GF P e) From SSB Wing A to DB L Pentadbiran f) From SSB Wing A to DB P Pentadbiran g) From SSB Wing A to DB AC Pentadbiran h) From SSB Wing A to DB L Perdagangan i) From SSB Wing A to DB P Perdagangan j) From SSB Wing A to DB AC Perdagangan k) From SSB Wing B to DB L KEW/PENGARAH l) From SSB Wing B to DB P KEW/PENGARAH m) From SSB Wing B to DB AC KEW/PENGARAH n) From SSB Wing B to DB L PEP/UJKK/UJKA o) From SSB Wing B to DB P PEP/UJKK/UJKA p) From SSB Wing B to DB AC PEP/UJKK/UJKA	m	54	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7D : CABLES

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
4.2	2 x 16sq.mm PVC in trunking c/w 16sq.mm PVC CPC from:- a) From SSB Wing B to DB Server Power b) From SSB Wing B to DB Server Aircond c) From SSB Wing A to DB Spotlight	m	100	-	-
4.3	4 x 50sq.mm PVC in trunking c/w 25sq.mm PVC CPC from a) SSB Pentadbiran Aras 1 to Wing A Aras 1 b) SSB Pentadbiran Aras 1 to Wing B Aras 1	m	110	-	-
4.4	4 x 70sq.mm XLPE/PVC c/w 35sq mm XLPE/PVC CPC from : i) SSB A1 to SSB Pentadbiran Aras 1 on cable tray ii) SSB 3A to SSB Pentadbiran on cable tray	m	25	-	-
4.5	4 x 95sq.mm XLPE/PVC c/w 50sq mm XLPE/PVC CPC from : i) MSB K2 to SSB Power Bengkel Kayu on cable tray	m	15	-	-
4.6	To supply and install temporary supply from SSB Dewan to DB Server Pejabat using 3 x 25sq.mm + 1 x 35sq.mm aluminium Aerial Bundled Cable (ABC) c/w connection for server power supply etc and will be dismantle after all the wiring work is completely done. Installation of ABC using direct clip to wall. All route shall be avoided from metals	m	40	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7D : CABLES

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
	JUMLAH DARI HADAPAN				-
	<u>UNDERGROUND CABLES</u> All quantities given are PROVISIONAL The actual quantities installed shall be measured on site after completion and prices adjusted accordingly All cable shall be handled, laid and installed accordingly to the specification. All prizes must included excavation of trenches, clean sand, ducting, cable markers, making good and etc. as per specification. Complete with Heat Skrinkable dry type cable termination/ cable gland c/w earth tag washer and protective conductor If the cable size > 50sq.mm, the cable termination shall be using heat shrinkable cable termination. For Cable size $\leq$ 50sq.mm, the cable termination shall be using cable gland termination. To supply, deliver, lay, thermofit termination cable gland or cable box, cable marker, nylon rope, install, test and commissioning low voltage underground cable inclusive of excavation, back filling and making good the following :-				
4.7	2 core 10sq.mm PVC/SWA/PVC from : i) From feeder pillar to spotlight point A ii) From feeder pillar to spotlight point A1 iii) From DB Pondok Pengawal B to spotlight point B1 & B2 c/w junction box and wiring connection for floodlight	m	66	-	-
	JUMLAH DI BAWA KE HADAPAN				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7D : CABLES

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

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**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7E : EARTHING SYSTEM

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
5	<u>EARTHING SYSTEM</u>				
5.1	Supply and install earthing system comprising of the following:- a) Protective Conductor 50mm x 6mm Tinned Cooper Bar with bolts & nuts (OR 2 x 25mm x 3mm Cooper tape) from MSB to Earth Chamber b) Earthing conductor = 2 Sets of 2 x 3mm x 25mm copper tape c/w cooper bar saddle c) 2 nos of 16mm x 1.5m length copper jacketed steel core earth electrode for each chamber d) Precast heavy duty RC inspection chambers (300mm. X 300mm. X 180mm.) c/w concrete cover equivalent to type SAG/SB for complete installation according to JKR specification and JBE regulation. f) The connection of the earthing conductor to the earth electrode shall be made by exothermic welding or cold pressure welding.	lot	1	-	-
5.2	Additional set of earth electrodes, concrete inspection chambers and intermediate conductor using 3mm x 25mm copper tape and all accessories for complete earthing installation. (the required impedance less than 3 ohms.)	set	2	-	-
	JUMLAH DI BAWA KE ELECTRICAL SUMMARY OF TENDER				-

**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7F : MISCELLANEOUS

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
6	<u>MISCELLANEOUS</u>				
6.1	To callibrate Earth Leakage Current (ELR), (OCFR) by registered service engineer c/w certificate at MSB/SSB	nos	2	-	-
6.2	To supply and install Digital Power Meter (DPM) with function of Voltage, Current, Maximum Demand, Frequency, Power Factor, harmonic current/voltage etc	nos	2	-	-
6.3	To supply and install Moulded Case Circuit Breaker 2 pole and 60A ,50kA (lcs:100% lcu) price quoted shall include connecting cable/busbar from main busbar to MCCB	nos	2	-	-
6.4	To supply and install Moulded Case Circuit Breaker 3 pole and neutral 60A, 50kA (lcs:100% lcu) price quoted shall include connecting cable/busbar from main busbar to MCCB	nos	2	-	-
6.5	To supply and install Moulded Case Circuit Breaker 3 pole and neutral 250A 50kA (lcs:100% lcu), price quoted shall include connecting cable/busbar from main busbar to empty compartment at existing MSB	nos	2	-	-
6.6	To supply and install rubber mat in front of the SSB and SSB and it shall extend to the full length of the SSB thickness not less than 6mm and width 1 meter.	nos	2	-	-
6.7	Testing and commissioning of the whole wiring system.	lump	sum	-	-
6.8	To Install Construction Scaffolding (Rental) during working period	lump	sum	-	-
6.9	Workmanship to dismantle the distribution box,fan, existing cable, lamp lantern, SSB, MSB, Bus Duct , MCCB and all lights which is not used	lump	sum	-	-
	JUMLAH DI BAWA KE HADAPAN				-

JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON, NEGERI SEMBILAN

BQ 7F : MISCELLANEOUS

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

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**JPPKK - MENAIK TARAF FASILITI DAN INFRASTRUKTUR DI POLITEKNIK PORT DICKSON,
NEGERI SEMBILAN**

BQ 7G : DELETION

(All quantities are PROVISIONAL and will be subjected to final REMEASUREMENT)

Item	Extent of Work	Unit	Qty	Rate	Amount
7	<u>DELETION</u>				
7.1	I am willing to credit to GOVERNMENT all wires, switchches, fitting etc, which are not practically in used	Lump	Sum	-	-
JUMLAH DI BAWA KE ELECTRICAL SUMMARY OF TENDER					-