

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN
HISHAMUDDIN, KUALA LUMPUR.**

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/CKUB/23745/2024**
- E. Tarikh Cipta Senarai Kuantiti: **22/11/2024**

Senarai kuantiti ini dikeluarkan oleh BBA1/CKUB. Sebarang pertanyaan boleh berhubung dengan pegawai yang menyediakan tender dan maklumat pegawai untuk dihubungi boleh didapati di laman iklan.

JABATAN KERJA RAYA MALAYSIA

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR.

SENARAI KUANTITI

Adendum bil. 1

No. Tender: JKR/CKUB/23745/2024

RINGKASAN TENDER

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN
HISHAMUDDIN, KUALA LUMPUR.**

ITEM	DESCRIPTION	PAGE NO.	AMOUNT(RM)
A	PRELIMINARIES AND GENERAL CONDITIONS OF CONTRACT	A/SUM/1	
B	DEMOLITIONS WORKS		
	B1 - BANGUNAN SULAIMAN (ALL PROVISIONAL)	B1/SUM/1	
	B2 - BANGUNAN PAVILION (ALL PROVISIONAL)	B2/SUM/1	
C	BUILDING WORKS		
	C1 - UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)	C1/SUM/1	
	C2 - UPGRADING OF BANGUNAN PAVILION (ALL PROVISIONAL)	C2/SUM/1	
D	MECHANICAL WORKS	D/SUM/1	
E	ELECTRICAL WORKS	E/SUM/1	
F	EXTERNAL WORKS (ALL PROVISIONAL)	F/SUM/1	
G	PROVISIONAL SUM	G/SUM/1	
Jumlah di bawa ke Borang Tender			-

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN DI
BANGUNAN SULAIMAN, JALAN SULTAN
HISHAMUDDIN, KUALA LUMPUR.**

SEKSYEN II

SENARAI KUANTITI

BILL NO. A - PRELIMINARIES

BILL NO. A - PRELIMINARIES

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 of the Works contained in the Contract and the Contractor shall allow for compliance with the same and for any cost incurred in connection therewith.
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	<p>The rates and prices inserted in the Bill of Quantities shall include cost of the works described, all risks, liabilities and obligations set forth or implied in the Contract Document and shall be deemed to include the following, unless expressly stated otherwise:</p> <ul style="list-style-type: none"> a) the provision of labour and all costs 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 costs in connection therewith; 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;

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN KL**

BILL NO. A - PRELIMINARIES

Item	Description
	<p>g) the phasing requirements 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;</p> <p>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 Standards and Codes of Practice for reference, it shall then be as instructed by the S.O.;</p> <p>i) all royalties and dues which the Contractor may be required to pay;</p> <p>j) wastage;</p> <p>k) establishment charges, overheads and profit;</p> <p>l) whatsoever method of construction the Contractor may adopt.</p>
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.
2.0	MEASUREMENT
2.1	Quantities in the Bills of Materials 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 item 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.

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN KL**

BILL NO. A - PRELIMINARIES

Item	Description
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: <ul style="list-style-type: none"> a) in the case of 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, all as specified in the specification.
5.0	PHASING SEQUENCE OF OPERATIONS AND METHODS OF CONSTRUCTION
5.1	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
6.1	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
8.1	The rates shall include any costs arising from and in connection with the execution of work under water wherever required unless otherwise stated.

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN KL**

BILL NO. A - PRELIMINARIES

Item	Description																																	
9.0	PHRASEOLOGY																																	
9.1	Differences in the method of billing and in phraseology used in various parts of the Bill of Quantities and/or Schedule of Rates shall not be a basis of any claim for an increase in the rates and prices.																																	
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. A : Preliminaries and General Conditions unless separately measured in other parts of the Bill of Quantities.																																	
13.0	ABBREVIATIONS																																	
13.1	<p>The following abbreviations or symbols are generally used in the Contract Document and shall be read as follows:</p> <table><tr><td>a) mm</td><td>:</td><td>milimetre</td></tr><tr><td>b) m</td><td>:</td><td>metre</td></tr><tr><td>c) m2</td><td>:</td><td>square metre</td></tr><tr><td>d) m3</td><td>:</td><td>cubic metre</td></tr><tr><td>e) kg</td><td>:</td><td>kilogramme</td></tr><tr><td>f) tonne</td><td>:</td><td>metric ton</td></tr><tr><td>g) No.</td><td>:</td><td>Number</td></tr><tr><td>h) L.S.</td><td>:</td><td>Lump Sum</td></tr><tr><td>i) P.C. Sum</td><td>:</td><td>Prime Cost Sum</td></tr><tr><td>j) P.S.</td><td>:</td><td>Provisional Sum</td></tr><tr><td>k) RM</td><td>:</td><td>Ringgit Malaysia</td></tr></table>	a) mm	:	milimetre	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	i) P.C. Sum	:	Prime Cost Sum	j) P.S.	:	Provisional Sum	k) RM	:	Ringgit Malaysia
a) mm	:	milimetre																																
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																																
i) P.C. Sum	:	Prime Cost Sum																																
j) P.S.	:	Provisional Sum																																
k) RM	:	Ringgit Malaysia																																

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN KL**

BILL NO. A - PRELIMINARIES

Item	Description
14.0	<p>SCOPE OF WORKS</p> <p>The works included under this Contract comprises :</p> <p>BILL A - PRELIMINARIES AND GENERAL CONDITIONS</p> <p><u>BILL B - DEMOLITION WORKS</u></p> <p>BILL B1 - BANGUNAN SULAIMAN (ALL PROVISIONAL)</p> <p>BILL B2 - BANGUNAN PAVILION (ALL PROVISIONAL)</p> <p><u>BILL C - BUILDING WORKS</u></p> <p>BILL C1 - UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)</p> <p>BILL C2 - UPGRADING OF BANGUNAN PAVILION (ALL PROVISIONAL)</p> <p>BILL D - MECHANICAL WORKS</p> <p>BILL E - ELECTRICAL WORKS</p> <p>BILL F - EXTERNAL WORKS (ALL PROVISIONAL)</p> <p>BILL G - PROVISIONAL SUM</p>
15.0	<p>LOCATION OF SITE</p>
15.1	<p>The site for the proposed Works is located at Bangunan Sulaiman, Jalan Sultan Hishamuddin, Kampung Attap, 50000 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur.</p>

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN KL**

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	GENERAL INFORMATION TO BILL OF QUANTITIES 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 a prominent position at the Site as approved by the S.O. and shown in drawing no JKR/CA/P-PTB1M/30/PEL16/003/01C, JKR/CA/PPTB1M/30/PEL16/003/02C and JKR/CA/PPTB1M/30/PEL16/003/03C. 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. For the purpose 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 Contractor and submitted to the S.O. for approval. Dilapidation Survey C The Contractor shall carry out dilapidation survey as directed by the S.O. 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 damage as specified. Construction Plan E The Contractor shall submit to the S.O. for his approval the following as specified : a) Programme of Works b) Method statements c) Contractor's organisation chart d) Schedules	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	<p>GENERAL INFORMATION TO BILL OF QUANTITIES</p> <p>e) Quality Assurance Plan for Works Contract worth RM10 Million and above</p> <p>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.</p> <p>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. (Refer Addendum to specification for project worth RM 10 Million and above).</p> <p>Contractor's Plant</p> <p>A The Contractor shall provide, erect, keep insured, maintain and remove on completion all requisite scaffolding, hoist, crane, construction plant, ladder, staging, tarpaulins, tools, vehicles, tackles and other plants and apparatus (excluding piling and pile testing equipment), as necessary for the execution of the Works as specified.</p> <p>Temporary Water And Power Supplies For The Works</p> <p>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.</p> <p>Site Security</p> <p>C 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.</p>	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	GENERAL INFORMATION TO BILL OF QUANTITIES Temporary Access And Maintenance Of Existing Roads A The Contractor shall provide and maintain all necessary temporary roads, culverts, tracks, bridges, et cetera for access to and within the Site as specified as long as required to the approval of the S.O. as specified. B 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. C 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 D The Contractor shall ensure the safety, health and welfare at work of all his workmen as specified. Contractor's Temporary Accommodation And Facilities For Workmen Living On Site E The Contractor shall provide and maintain temporary accommodation including all necessary facilities and services for water supply, drainage, sanitation and lighting for his staff as specified. Contractor's Office And Storage F 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 G 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 caused shall be made good at the Contractor's own cost to the approval of the S.O. Shop Drawings, Samples And Mock-ups H The Contractor shall submit relevant shop drawings, samples of materials or workmanship and mock-ups units, manufacturer's specifications, et cetera for the S.O.'s approval as specified.	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	GENERAL INFORMATION TO BILL OF QUANTITIES	
	Progress Photographs	
A	The Contractor shall take progress photographs at monthly intervals or more frequent as directed by the S.O. and submit to the S.O. as specified.	
	Material Testing Laboratory And Staff	
B	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).	
	Office Accommodation For S.O.	
C	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.	
D	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	
E	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	
F	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.	
G	The Contractor shall provide suitable types of fire extinguishers as specified.	
H	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.	
J	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.	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	GENERAL INFORMATION TO BILL OF QUANTITIES 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 the 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 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 E 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. F The Contractor shall submit 5 copies of Safety and Health Plan (S-Plan) as required in APPENDIX A/5 as specified. G The Contractor shall submit 5 copies of monthly Safety and Health Report as required in APPENDIX A/6 as specified. H The Contractor shall provide and maintain adequate traffic safety and control including signages, warning lights and flagmen as necessary.	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)								
	<p>GENERAL INFORMATION TO BILL OF QUANTITIES</p> <p>Keeping The Site Tidy</p> <p>A 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.</p> <p>Coordination of Mechanical and Electrical (M & E) Services</p> <p>B 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 :</p> <table><tr><td><i>Project Cost (RM)</i></td><td><i>Minimum Requirement of M&E Coordinator</i></td></tr><tr><td>Below 10 million</td><td>1 COW</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> <p>As-Built Drawings</p> <p>C Pursuant to the terms of the contract, the Contractor shall provide approved As-built drawings as follows:</p> <ol style="list-style-type: none">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.Four (4) sets of Digital Copies in AutoCAD (.dwg) or any other compatible format to be stored in compact discs or removable storage; andFour (4) sets of Digital Copies in Acrobat (.pdf) or any other compatible format to be stored in compact discs or removable storage. <p>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.</p> <p>Clearing, Cleaning and Making Good on Completion</p> <p>D The Contractor shall clear and clean the Works including existing roads, drains bounding the Site of any debris, earth, et cetera, and making good all damages upon completion as specified.</p>	<i>Project Cost (RM)</i>	<i>Minimum Requirement of M&E Coordinator</i>	Below 10 million	1 COW	Between 10 to 50 million	1 Engineer & 1 COW	More than 50 million	1 Engineer & 2 COW	
<i>Project Cost (RM)</i>	<i>Minimum Requirement of M&E Coordinator</i>									
Below 10 million	1 COW									
Between 10 to 50 million	1 Engineer & 1 COW									
More than 50 million	1 Engineer & 2 COW									
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :								

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	<p>GENERAL INFORMATION TO BILL OF QUANTITIES</p> <p>Form of Contract</p> <p>A The Contractor shall refer to the Standard Form of Contract for further information. The Contractor may price here for all expenses involved in complying with the terms of this Clauses, otherwise such expenses are deemed to be included elsewhere.</p> <p><u>Clause No. 13 – Performance Bond / Performance Guarantee Sum</u></p> <p>B Performance Bond</p> <p>For due observance and performance of this contract the Contractor shall have to provide:</p> <p>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.</p> <p>ii) The Performance Bond shall remain valid and effective for the duration as specified in the Contract.</p> <p><u>Clause No.15</u></p> <p>C Insurance Against Personal Injuries and Damages to Property</p> <p><u>Clause No. 16</u></p> <p>D Indemnities to Government in Respect of Claim by Workmen</p> <p><u>Clause No. 17</u></p> <p>E Employees' Social Security Act 1969</p> <p><u>Clause No. 18</u></p> <p>F Insurance of Works</p>	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	GENERAL INFORMATION TO BILL OF QUANTITIES <u>Clause No. 22 – Design</u> A 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. <u>Clause No.35 – Materials, Goods and Workmanship</u> B Opening up of work for inspection or testing of materials or goods. <u>Clause No. 59 - Site Agent And Assistants</u> C 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. Traffic Management Plan (TMP) D The contractors shall prepare traffic management plan (TMP) to the approval of the S.O. Visual Condition Survey and Defect Mapping Works The Contractor shall investigate and carry out Visual Condition Survey and Defect Mapping Works including submittals and reporting in accordance to the Term of Reference (TUB-09/2024), to cover the following building/blocks : E Bangunan Sulaiman F Bangunan Pavilion	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	<p>GENERAL INFORMATION TO BILL OF QUANTITIES</p> <p><u>KERJA KONSERVASI</u></p> <p><u>PERIHAL KERJA KONSERVASI BANGUNAN</u></p> <p><u>Justifikasi adalah merujuk kepada pembaikan kerosakan bangunan yang telah dipulihara pada 2016</u></p> <p>Nota:</p> <p>Ulasan yang diberikan adalah secara umum yang meliputi Perihal Kerja sahaja. Butiran Kuantiti dan Kadar Harga hendaklah dirujuk kepada kuantiti sebenar di tapak, kadar semasa dan amalan terbaik kerja pemuliharaan</p> <p>Sebarang kerja perlu dirujuk kepada Konservator Berdaftar Kerajaan terlebih dahulu sebelum kelulusan oleh Pegawai Penguasa. Pihak kami tidak akan bertanggungjawab ke atas sebarang tindakan yang tidak dirujuk kepada pejabat ini.</p> <p><u>YURAN IKTISAS</u></p> <p>Keperluan-keperluan dalam syarat-syarat pelantikan Konservator Berdaftar</p> <p><u>Sebarang kerja yang dilaksanakan oleh kontraktor hendaklah mematuhi Akta Warisan Kebangsaan 2005 (Akta 645) dan Garis Panduan Pemuliharaan Bangunan Warisan.</u></p> <p>A Kontraktor hendaklah mengemukakan:-</p> <p>i) Penyata kaedah (method statement) bagi semua kerja pemuliharaan untuk kelulusan P.P dan konservator dalaman sebelum semua kerja dilaksanakan.</p> <p>ii) Penyediaan, Kajian, Dokumentasi dan mengemukakan Laporan Dilapidasi, kajian kerosakan dan cadangan pembaikan yang dilulus JWN dan kelulusan P.P)</p> <p>iii) Memantau dan memastikan setiap Method Statement dan kerja pembaikan perlu di semak oleh konservator dan diluluskan kaedah sebelum di laksana ditapak.</p>	
	<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN</p> <p>SULAIMAN KL</p> <p>To Collection :</p>	

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
A	<p>GENERAL INFORMATION TO BILL OF QUANTITIES</p> <p>Pelantikan Konservator Berdaftar dan lain-lain kehendak</p> <p>i) Pihak kontraktor hendaklah melantik konservator berdaftar kategori fizikal yang masih aktif tempoh sah laku (validity) perkhidmatan bagi menjalankan peranan dan tanggungjawabnya seperti yang dinyatakan di dalam Garis Panduan Pemuliharaan Bangunan Warisan.</p> <p>ii) Kontraktor hendaklah mengemukakan CV terkini bagi konservator berdaftar kategori Fizikal yang dicadangkan bersama-sama dengan pengemukaan sebutharga/tender yang menerangkan pengalaman yang berkaitan (yang terdahulu dan semasa).</p> <p>iii) Konservator kontraktor hendaklah bertanggungjawab sepenuhnya ke atas kaedah-kaedah bagi kerja-kerja yang dilaksanakan. Konservator perlu berada di tapak sepenuh masa bagi menyelia kerja-kerja yang dilaksanakan serta semasa lawatan tapak oleh Pegawai Penguasa dan wakilnya. Konservator hendaklah menghadiri semua mesyuarat dan pemeriksaan di tapak sepanjang tempoh kontrak.</p> <p><u>PENYEDIAAN DOKUMENTASI, ANALISA DAN YANG BERKAITAN</u></p> <p>Kerja-kerja dokumentasi perlu disediakan dan dikemukakan oleh konservator kontraktor seperti berikut:</p> <p>i)Laporan Sebelum Kerja Pemuliharaan Historical Architectural Building Survey (HABS-I) -Draf laporan dikemukakan selewat-lewatnya 4 bulan selepas Surat Setuju Terima (SST) dikeluarkan.</p> <p>ii)Laporan Semasa Kerja Pemuliharaan Historical Architectural Building Survey (HABS-II) -Draf laporan dikemukakan secara berperingkat dalam tempoh yang dipersetujui bersama P.P dan konservator.</p> <p>iii) Laporan Selepas Kerja Pemuliharaan Historical Architectural Building Survey (HABS-III) -Draf laporan dikemukakan selewat-lewatnya 4 bulan selepas Sijil Perakuan Siap Kerja (CPC) dikeluarkan.</p> <p>iv) Laporan Akhir Kerja Pemuliharaan -Draf laporan dikemukakan selewat-lewatnya 1 bulan selepas Sijil Perakuan Siap Kerja (CPC) dikeluarkan. Laporan final dikemukakan selewat-lewatnya 1 bulan setelah Sijil Perakuan Siap Memperbaiki Kecacatan (CMGD) dikeluarkan.</p> <p>v) Rakaman video (videografi) kerja-kerja sebelum, semasa dan selepas dilaksanakan (30 minit) - dikemukakan bersama-sama Laporan HABS I, II dan III.</p>	
B		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

BILL NO. A - PRELIMINARIES

Item	Description	Amount (RM)
	<p>GENERAL INFORMATION TO BILL OF QUANTITIES</p> <p>vi) Video Korporat berkualiti tinggi berdurasi 3 - 5 minit untuk tujuan promosi.</p> <p>vii)Penyediaan 'Coffee Book Table' sebanyak 20 salinan berwarna dengan kertas berkualiti</p> <p>Penyediaan Lukisan Terukur (3D Thermal Laser Scanning) keseluruhan tapak bangunan yang disemak dan disahkan oleh Perunding bertauliah</p>	
A	<p>Penyediaan kerja awalan untuk perlindungan menyeluruh kepada bangunan dan tapak sekitar sepanjang kerja agar dapat mengawal kerosakan binaan sedia ada, kerja penyerapan air dalam dinding, kerja water proofing keperluan ruang penyimpanan barang, pengukuhan struktur dan lain-lain kerja berkaitan.</p>	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Collection :

A/17

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)				

* The Contractor shall provide necessary space/ furniture for storage

LIST OF S.O.'S FACILITIES AND EQUIPMENT

BIL	ITEM	QUANTITY
<div>TIDAK BERKENAAN</div>		

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.

LIST OF S.O.'S TRANSPORT SERVICES

BIL	ITEM	QUANTITY
TIDAK BERKENAAN		

LIST OF LABORATORY EQUIPMENT

BIL	ITEM	QUANTITY
TIDAK BERKENAAN		

APPENDIX A/5

REQUIREMENTS OF SAFETY AND HEALTH PLAN (S-PLAN)

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

Whenever there is any dispute arise, item listed as per Prosedur Kawalan Keselamatan dan Kesihatan Pekerjaan 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.

REQUIREMENTS OF SAFETY AND HEALTH REPORT

1. Introductions.
2. OSH Programme.
3. OSH Statistics 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 arises, item listed as per Prosedur Kawalan Keselamatan dan Kesihatan Pekerjaan JKR.PK(O).04B (Format Laporan Keselamatan Dan Kesihatan Pekerjaan), under the latest version of Sistem Pengurusan Bersepadu (SPB), JKR shall be referred.

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

Aspects	Parameter	JKR Minimum Requirement for Non-EIA Projects.	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 ^{1,2}	Turbidity	≤ 200 NTU	-	-	≤ 50 NTU	
	Suspended Solid	≤ 100 mg/l	≤ 50 mg/l	≤ 100 mg/l	≤ 50 mg/l	
	Biochemical Oxygen Demand ₅ @ 20°C (BOD) ₅	≤ 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	6 - 9	
	E-Coli	≤ 400 counts / 100 ml	-	-	≤ 100 counts/ 100ml	≤ 400 counts/ 100ml
	Dissolved Oxygen (DO)	≥ 4 mg/l	-	-	5 - 7 mg/l	
	Oil and Grease	≤ 10 mg/l	≤ 5 mg/l	≤ 10 mg/l	≤ 40 µg/l, N	
	Ammoniacal Nitrogen (river)	-	≤ 10 mg/l	≤ 20 mg/l	≤ 0.3 mg/l	
Silt trap and sediment basin discharge	Turbidity	≤ 250 NTU				
	Total Suspended Solid	≤ 50 mg/l				

**TABLE A2 : ENVIRONMENTAL QUALITY STANDARDS TO BE COMPLIED WITH
BY THE CONTRACTOR [Cont'd]**

Air ³	Particulate Matter (PM ₁₀) (24hr)	≤ 120 µg/m ³ /day
	Particulate Matter (PM _{2.5}) (24hr)	≤ 50 µg/m ³ /day
Noise ⁴	Equivalent Noise Level (L _{eq}), L ₁₀ , L ₉₀	Receiving Land Use (residential)
		Day time (7.00 am - 7.00 pm) L ₉₀ 60 dBA; L ₁₀ ≤ 75 dBA; L _{max} ≤ 90 dBA
		Evening time (7.00 pm - 10.00 pm) L ₉₀ ≤ 55 dBA; L ₁₀ ≤ 70 dBA; L _{max} ≤ 85 dBA
		Night time (10.00 pm - 7.00 am) Noise Sensitive Areas : L _{Aeq} ≤ 40 dBA
		Suburban Areas : L _{Aeq} ≤ 45 dBA
		Urban Areas : L _{Aeq} ≤ 50 dBA
Vibration ⁵	Vertical Vibration Peak Velocity (mm/s)	Not more than 3 mm/s at receiver location or across real property boundary

Reference:

- 1) 2nd Schedule (regulation 7), Environmental Quality (Sewage) Regulations 2009, Environmental Quality Act 1974.
 - (i) Standard A: For location with downstream water intake
 - (ii) Standard B: For location with no downstream water intake
- 2) National Water Quality Standards for Malaysia
 - (i) Class IIA: Water Supply II - conventional treatment required
 - a) Fishery II - sensitive aquatic species
 - (ii) Class IIB: Recreational use with body contact
- 3) Recommended Malaysian Guidelines on Ambient Air Quality
- 4) Schedule 1 & Schedule 6, Planning Guidelines for Environmental Noise Limits & Control,)(DOE, 2004)
- 5) 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 requirements should comply with Conditions of Approval (CoA) stipulated by DOE or other relevant authorities.

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN
DI BANGUNAN SULAIMAN, JALAN
SULTAN HISHAMUDDIN, KUALA
LUMPUR.**

SEKSYEN II

SENARAI KUANTITI

**BILL NO. B1- BANGUNAN
SULAIMAN (ALL PROVISIONAL)**

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
	<u>GENERAL NOTES:</u>				
A	Demolition works generally shall be carried out in such manner that there will be a minimum of inconvenience to adjoining owners or the public. The safety of the adjoining buildings and the public shall be of paramount importance during the execution of the demolition works and all necessary precaution shall be taken. The Contractor will be held responsible and is to indemnify the building owner for any claim or series of claims which may arise out of the demolition works.	NOTE			
B	The Contractor shall examine the drawings, visit the site, inspect the existing premises and satisfy himself as to the nature and extent of the works to be demolish and also the working conditions to be encountered. No claims for extra payment in this respect will be entertained.	NOTE			
C	The Contractor shall ascertain for himself the actual quantities required including the wastages and etc.	NOTE			
D	The Contractor shall allow for protection and temporary supports of all works which may be affected by the repair works.	NOTE			
E	The Contractor shall be required to repair or replace at his own expenses any parts or complete items which in the opinion of the S.O. have been damaged as a result of insufficient care of removing, handling and protecting.	NOTE			
F	All prices for demolish or repair works shall be inclusive of making good surrounding and any works disturbed and carefully removing and carting away all debris off site.	NOTE			
G	All works shall be strictly in compliance to Specifications provided and/or product manufacturers instruction and to the approval of the S.O.	NOTE			
H	Rates to include supply all the necessary labours, materials, tools, safety measures, temporary access and supervision to rectify defects.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

B1/1/1

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
A	Any item not indicated in the Summary of Tender but is shown in the Tender Drawing is deemed to be included in the Bills of Quantities.	NOTE			
B	The contractor shall before commencement of any works regarding relocation works, propose to the S.O a method statement for work to be done. The work can only be proceed subject to the approval of the method statement by the S.O.	NOTE			
C	The contractor shall, all passages shall be fully enclosed, clean and totally free from dust, dirt, debris and the like at all times during the construction process and to the reasonable satisfaction of the S.O	NOTE			
D	The Contractor shall allow for protection and supports of all works which may be affected by the demolition works.	NOTE			
	<u>CONDITION SURVEY AND DISCONNECTION OF SERVICES</u>				
E	Before removal works is carried out, the contractor is required to carry out a comprehensive condition survey of all mechanical and electrical services within the work area and terminate such services as directed by the S.O. and or as shown on their respective drawings. The contractor shall also arrange mechanical and electrical services to be, which come to be removed, to be disconnected and diverted so that they may be entirely self-contained within any portion of the premises which is to remain.	NOTE			
	<u>REMOVE OF DEBRIS OR RUBBISH</u>				
F	All debris arising from demolition, renovation, and upgrading works, as well as the works themselves, shall be placed in appropriate waste bags and removed from the site daily, using RORO containers approved by local authorities.	NOTE			
G	The rubbish is to be sprinkled with water to prevent dust arising and all proper screens and protection provided to the satisfaction os S.O.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B1/1/2

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
A	The debris/rubbish can only be removed after the official working hours or after 6.00 pm or depending S.O's instruction.	NOTE			
B	All waste bags must be removed from the respective floors direct to the truck or mobile rubbish container.	NOTE			
C	Accumulation of debris or rubbish within or outside the building premises is nor permitted.	NOTE			
D	No debris of whatsoever form shall be thrown down from the respective floors but carefully brought down and loaded direct to the trucks mobile rubbish container immediately.	NOTE			
E	All debris and the like shall be cut or reduced to managable sizes before loading into lift cars and to prevent damages to existing works.	NOTE			
	<u>REINSTATEMENT</u>				
F	All pulling down as hereafter described is to be carried out without damage to the remaining parts of the structure / works adjoining property. If damage occurs in the carrying out of the demolition the contractor shall reinstate and make good at his own expense. All making out and making good is to be executed with materials and workmanship to match in every respect the surrounding work and is to be properly bonden to it.	NOTE			
	<u>MATERIAL FROM DEMOLITION/REPAIRING WORKS</u>				
G	All material arising from the demolition are to remain the property of the contractor and is to be carted away from the site and the contractor is to make due allowance in his tender for the value of any sound materials so acquired or residual scarp value arising.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

B1/1/3

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
	<u>OVERLOAD EXISTING STRUCTURE</u>				
A	The contractor shall, all materials arising from the demolition must not be stacked or allowed to accumulate on existing structures in such away as to endanger their stability. The demolition contractor will held entirely responsible for the damage arising from the cause.	NOTE			
	<u>SEQUENCE OF REMOVAL WORKS</u>				
B	The Contractor is to take note that he shall not assume that the whole works can be carried out in one continous operation but subject to the approval of the S.O. Allow herein for carrying out works in parts or in sections as may be directed by the S.O. from time to time and for any disruptions therein in the flow of the works throughout.	NOTE			
	<u>APPROVAL OF METHOD STATEMENT PRIOR TO EXECUTION OF WORKS</u>				
C	Before any removal works commence, the Contractor is required to submit his method statement of how the works to be executed for approval by the S.O.	NOTE			
	<u>PROTECTION WORKS</u>				
D	Allow for an adequate temporary protection to non-disturbed be provided to existing materials, services area and other related area and new material which has been installed on site with approved materials by the S.O. (designated for construction use) including removal upon completion to its original condition at the point of official take over.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

B1/1/4

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS <u>DEMOLITION OF BANGUNAN SULAIMAN</u> <u>(ALL QUANTITIES ARE PROVISIONAL)</u> <p>The work in this section comprises the demolish, remove, scrapping and cleaning work.</p> <p>Information :</p> <p>A The contractor is required to visit the site to make a quantity measurement again to get the actual size and measurements etc. to be demolished and replaced with new works etc.</p> <p>B All demolition or upgrading works in this BQ shall be read together with Laporan Pemeriksaan Kerosakan Arkitek as per attached in Section III (Spesifikasi Dan Pengukuran Dan Faktor Menghargakan Senarai Kuantiti), Part A (i) Laporan & Terma Rujukan.</p> <p><u>CLEANING OR REMOVING DIRT ON THE SURFACE OF THE EXISTING FLAT ROOF</u></p> <p>Cleaning or removing dirt on the surface of the existing flat roof; make good affected structure and finishes including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No. JKR/CA/14/10/101/W24/018/BS/P/02</p> <p>C Tepi Tangga Lift (approximate area 92m2)</p>				
		NOTE			
		NOTE			
		ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B1/1/5

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
	<u>DEMOLISH EXISTING WINDOW</u>				
	Demolish the existing window, frame, and all accessories, along with any other necessary associated works, including temporary works. Make good any defects resulting from the disturbance caused by the removal of the window. The contractor must also propose and carry out the repair works in accordance with the method statement provided by registered conservators, cart away debris to the contractor's own dump, and prepare the surface to receive new finishes/works as instructed by the S.O. as shown in the drawing no. JKR/CA/14/10/101/W24/018/BS/J/01.				
A	Lobi Lift 1 (approximate quantity 3 nos)	ITEM			
	<u>REMOVE EXISTING SILICON RUBBER</u>				
	Demolish/Remove the existing Silicon Rubber around the window glass panel and other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; making good any defects to work disturbed; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing no. JKR/CA/14/10/101/W24/018/BS/R/01.				
B	Tingkap di Lift Lobi Belakang (approximate quantity 174m)	ITEM			
	<u>DEMOLISH/REMOVE EXISTING LOUVERS</u>				
	Demolish/Remove existing louvers, frame, all accessories and other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; making good any defects to work disturbed; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing.				
C	Menara 1 (approximate quantity 4 nos louvers; size 1200mm x 1200mm) (JKR/CA/14/10/101/W24/018/BS/W/01)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
DEMOLITION WORKS					
A	Menara 2 & 3 (approximate quantity 8 nos louvers; size 1200mm x 1500mm) (JKR/CA/14/10/101/W24/018/BS/Y/01)	ITEM			
B	Fasad Tengah (approximate quantity 14 nos louvers) (JKR/CA/14/10/101/W24/018/BS/X/01)	ITEM			
C	Menara 4, 5 & 6 (approximate quantity 9 nos louvers; size 1200mm x 1500mm) (JKR/CA/14/10/101/W24/018/BS/V/01)	ITEM			
<u>DEMOLISH EXISTING DOOR</u>					
Demolish the existing door, frame, all accesories and other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; making good any defects to work disturbed; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing no. JKR/CA/14/10/101/W24/018/BS/T/01.					
D	Pejabat AIAC (approximate quantity 1 nos)	ITEM			
<u>DEMOLISH/REMOVE EXISTING FLOOR FINISHES</u>					
Demolish/Remove all types of floor finishes, including screeding or underlay and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good any defects to work disturbed; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing.					
E	Tangga Tepi (Bilik Pam) (approximate area 40m2). (JKR/CA/14/10/101/W24/018/BS/E/01)	ITEM			
F	Drop Off Porch (approximate area 60m2) (JKR/CA/14/10/101/W24/018/BS/I/01)	ITEM			
G	Tandas Lelaki Tengah (approximate area 25m2) (JKR/CA/14/10/101/W24/018/BS/O/01)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B1/1/7

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS <u>RESURFACING OF EXISTING FLOOR FINISHES</u> <p>Demolish the existing cement render flooring until to the waterproof layer and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good any defects to work disturbed; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No. JKR/CA/14/10/101/W24/018/BS/M/01</p>				
A	Rumah Pam Chiller (approximate area 54m2) <u>DEMOLISH EXISTING CEILING FINISHES</u> <p>Demolish all types of ceiling finishes, including framing and temporary works related in accordance with the method statement provided by registered conservators. Make good any affected structure and finishes, cart away debris to the contractor's own dump, and prepare the surface to receive new finishes/works as instructed by the S.O and as shown in the drawing.</p>	ITEM			
B	Control Room Regent Auditorium (approximate area 40m2) (JKR/CA/14/10/101/W24/018/BS/Q/01)	ITEM			
C	Tandas lelaki & perempuan (approximate area 50m2) (JKR/CA/14/10/101/W24/018/BS/U/01)	ITEM			
D	Luar Kafeteria (Near Pool) (approximate area 80m2) (JKR/CA/14/10/101/W24/018/BS/G/01)	ITEM			
E	Tandas OKU (approximate area 5m2) (JKR/CA/14/10/101/W24/018/BS/L/01)	ITEM			
F	Bilik Kompresor (approximate area 41m2) (JKR/CA/14/10/101/W24/018/BS/N/01)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B1/1/8

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
A	Tepi Tangga Lift (approximate area 90m2) (JKR/CA/14/10/101/W24/018/BS/P/01)	ITEM			
B	Menara 4, 5 & 6 (approximate area 139m2) (JKR/CA/14/10/101/W24/018/BS/V/01)	ITEM			
	<u>SCRAPE OFF EXISTING CEILING FINISHES</u>				
	Scrape off loose paint, clean the structure and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good affected structure and finishes; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No. JKR/CA/14/10/101/W24/018/BS/S/01				
C	Siling Ruang Pejabat (approximate area 480m2)	ITEM			
	<u>DEMOLISH EXISTING CEILING FINISHES (All Spaces Involved In The Conversion Of Fire Protection System And Electrical Works)</u>				
	Demolish all types of ceiling finishes including framing; make good affected structure and finishes including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing.				
D	All Spaces Involved In The Conversion Of Fire Protection System And Electrical Works (approximate area 4830m2) (JKR/CA/14/10/101/W24/018/BS/H/01), (JKR/CA/14/10/101/W24/018/BS/H/03), (JKR/CA/14/10/101/W24/018/BS/H/05), (JKR/CA/14/10/101/W24/018/BS/H/07) and (JKR/CA/14/10/101/W24/018/BS/H/09)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS <u>DEMOLISH EXISTING BOXED-UP RAIN WATER DOWN PIPE (RWDP)</u> Demolish the existing boxed-up and rain water down pipe connection system; make good affected structure and finishes including temporary works related related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No. JKR/CA/14/10/101/W24/018/BS/B/01				
A	Dinding & Tiang Grid E2/ES sehingga E2/EC (approximate 14nos. ; size each boxed-up 1000mm x 400mm x 300mm(H)) Demolish the existing boxed-up structure; make good any disturbed structures and finishes, including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to the contractor's own dump, and prepare the surface to receive new finishes/works as instructed by the S.O. and as shown in the drawing No.(JKR/CA/14/10/101/W24/018/BS/F/01	ITEM			
B	Koridor Luar (Kitchen) (approximate 1nos.)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					

To Collection :

B1/1/10

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
	<u>SCRAPE OFF EXISTING WALL FINISHES</u>				
	Scrape off loose paint, clean the structure and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good affected structure and finishes; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing.				
A	Private Dining Room (approximate area 327m2) (JKR/CA/14/10/101/W24/018/BS/C/01)	ITEM			
B	Dinding & Tiang Grid E2/ES Sehingga E2/EC (approximate area 448m2) (JKR/CA/14/10/101/W24/018/BS/A/01)	ITEM			
C	Dinding Tangga 3 (approximate area 69m2) (JKR/CA/14/10/101/W24/018/BS/D/01)	ITEM			
D	Lobi Lift 1 (approximate area 220m2) (JKR/CA/14/10/101/W24/018/BS/K/01)	ITEM			
E	Menara 1 (approximate area 130m2) (JKR/CA/14/10/101/W24/018/BS/W/01)	ITEM			
F	Fasad Tengah (approximate area 60m2) (JKR/CA/14/10/101/W24/018/BS/X/01)	ITEM			
G	Menara 2 & 3 (approximate area 180m2) (JKR/CA/14/10/101/W24/018/BS/Y/01)	ITEM			
H	Menara 4, 5 & 6 (approximate area 264m2) (JKR/CA/14/10/101/W24/018/BS/V/01)	ITEM			
J	Fasad Bahagian Dalam & Luar termasuk Dinding Sepanjang Koridor Fasad Hadapan, Belakang, Kanan & Kiri (approximate area 9626m2) (JKR/CA/14/10/101/W24/018/BS/Z/01), (JKR/CA/14/10/101/W24/018/BS/Z/03), (JKR/CA/14/10/101/W24/018/BS/Z/05) & (JKR/CA/14/10/101/W24/018/BS/Z/07)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B1/1/11

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Amount (RM)
	DEMOLITION WORKS	
	<u>COLLECTION</u>	
	FROM PAGE NO. B1/1/1	
	FROM PAGE NO. B1/1/2	
	FROM PAGE NO. B1/1/3	
	FROM PAGE NO. B1/1/4	
	FROM PAGE NO. B1/1/5	
	FROM PAGE NO. B1/1/6	
	FROM PAGE NO. B1/1/7	
	FROM PAGE NO. B1/1/8	
	FROM PAGE NO. B1/1/9	
	FROM PAGE NO. B1/1/10	
	FROM PAGE NO. B1/1/11	
	KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL	To Summary :

BILL NO. B1- BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	From Page No.	Amount (RM)
1	<u>SUMMARY</u> DEMOLITION WORKS	B1/1/12	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL			To Ringkasan Tender :

B1/SUM/1

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN
DI BANGUNAN SULAIMAN, JALAN
SULTAN HISHAMUDDIN, KUALA
LUMPUR.**

SEKSYEN II

SENARAI KUANTITI

**BILL NO. B2- BANGUNAN PAVILION
(ALL PROVISIONAL)**

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
	<u>GENERAL</u>				
A	Demolition works generally shall be carried out in such manner that there will be a minimum of inconvenience to adjoining owners or the public. The safety of the adjoining buildings and the public shall be of paramount importance during the execution of the demolition works and all necessary precaution shall be taken. The Contractor will be held responsible and is to indemnify the building owner for any claim or series of claims which may arise out of the demolition works.	NOTE			
B	The Contractor shall examine the drawings, visit the site, inspect the existing premises and satisfy himself as to the nature and extent of the works to be demolish and also the working conditions to be encountered. No claims for extra payment in this respect will be entertained.	NOTE			
C	The Contractor shall ascertain for himself the actual quantities required including the wastages and etc.	NOTE			
D	The Contractor shall allow for protection and temporary supports of all works which may be affected by the repair works.	NOTE			
E	The Contractor shall be required to repair or replace at his own expenses any parts or complete items which in the opinion of the S.O. have been damaged as a result of insufficient care of removing, handling and protecting.	NOTE			
F	All prices for demolish or repair works shall be inclusive of making good surrounding and any works disturbed and carefully removing and carting away all debris off site.	NOTE			
G	All works shall be strictly in compliance to Specifications provided and/or product manufacturers instruction and to the approval of the S.O.	NOTE			
H	Rates to include supply all the necessary labours, materials, tools, safety measures, temporary access and supervision to rectify defects.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B2/1/1

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
A	Any item not indicated in the Summary of Tender but is shown in the Tender Drawing is deemed to be included in the Bills of Quantities.	NOTE			
B	The contractor shall before commencement of any works regarding relocation works, propose to the S.O a method statement for work to be done. The work can only be proceed subject to the approval of the method statement by the S.O.	NOTE			
C	The contractor shall, all passages shall be fully enclosed, clean and totally free from dust, dirt, debris and the like at all times during the construction process and to the reasonable satisfaction of the S.O	NOTE			
D	The Contractor shall allow for protection and supports of all works which may be affected by the demolition works.	NOTE			
	<u>CONDITION SURVEY AND DISCONNECTION OF SERVICES</u>				
E	Before removal works is carried out, the contractor is required to carry out a comprehensive condition survey of all mechanical and electrical services within the work area and terminate such services as directed by the S.O. and or as shown on their respective drawings. The contractor shall also arrange mechanical and electrical services to be, which come to be removed, to be disconnected and diverted so that they may be entirely self-contained within any portion of the premises which is to remain.	NOTE			
	<u>REMOVE OF DEBRIS OR RUBBISH</u>				
F	All debris arising from demolition, renovation, and upgrading works, as well as the works themselves, shall be placed in appropriate waste bags and removed from the site daily, using RORO containers approved by local utilities.	NOTE			
G	The rubbish is to be sprinkled with water to prevent dust arising and all proper screens and protection provided to the satisfaction os S.O.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
A	The debris/rubbish can only be removed after the official working hours or after 6.00 pm or depending S.O's instruction.	NOTE			
B	All waste bags must be removed from the respective floors direct to the truck or mobile rubbish container.	NOTE			
C	Accumulation of debris or rubbish within or outside the building premises is nor permitted.	NOTE			
D	No debris of whatsoever form shall be thrown down from the respective floors but carefully brought down and loaded direct to the trucks mobile rubbish container immediately.	NOTE			
E	All debris and the like shall be cut or reduced to managable sizes before loading into lift cars and to prevent damages to existing works.	NOTE			
	<u>REINSTATEMENT</u>				
F	All pulling down as hereafter described is to be carried out without damage to the remaining parts of the structure / works adjoining property. If damage occurs in the carrying out of the demolition the contractor shall reinstate and make good at his own expense. All making out and making good is to be executed with materials and workmanship to match in every respect the surrounding work and is to be properly bonden to it.	NOTE			
	<u>MATERIAL FROM DEMOLITION/REPAIRING WORKS</u>				
G	All material arising from the demolition are to remain the property of the contractor and is to be carted away from the site and the contractor is to make due allowance in his tender for the value of any sound materials so acquired or residual scarp value arising.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL B2/1/3 To Collection :					

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
	<u>OVERLOAD EXISTING STRUCTURE</u>				
A	The contractor shall, all materials arising from the demolition must not be stacked or allowed to accumulate on existing structures in such away as to endanger their stability. The demolition contractor will held entirely responsible for the damage arising from the cause.	NOTE			
	<u>SEQUENCE OF REMOVAL WORKS</u>				
B	The Contractor is to take note that he shall not assume that the whole works can be carried out in one continous operation but subject to the approval of the S.O. Allow herein for carrying out works in parts or in sections as may be directed by the S.O. from time to time and for any disruptions therein in the flow of the works throughout.	NOTE			
	<u>APPROVAL OF METHOD STATEMENT PRIOR TO EXECUTION OF WORKS</u>				
C	Before any removal works commence, the Contractor is required to submit his method statement of how the works to be executed for approval by the S.O.	NOTE			
	<u>PROTECTION WORKS</u>				
D	Allow for an adequate temporary protection to non-disturbed be provided to existing materials, services area and other related area and new material which has been installed on site with approved materials by the S.O. (designated for construction use) including removal upon completion to its original condition at the point of official take over.	NOTE			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B2/1/4

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>DEMOLITION WORKS</p> <p><u>DEMOLITION OF BANGUNAN PAVILLION</u></p> <p><u>(ALL QUANTITIES ARE PROVISIONAL)</u></p> <p>The work in this section comprises the demolish, remove, scrapping and cleaning work.</p> <p>Information :</p> <p>A The contractor is required to visit the site to make a quantity measurement again to get the actual size and measurements etc. to be demolished and replaced with new works etc.</p> <p>B All demolition or upgrading works in this BQ shall be read together with Laporan Pemeriksaan Kerosakan Arkitek as per attached in Section III (Spesifikasi Dan Pengukuran Dan Faktor Menghargakan Senarai Kuantiti), Part A (i) Laporan & Terma Rujukan.</p> <p><u>CLEANING OR REMOVING DIRT ON THE SURFACE OF THE EXISTING GLASS CANOPY</u></p> <p>Cleaning or removing dirt on the surface of the existing glass canopy; make good affected structure and finishes including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No. JKR/CA/14/10/101/W24/018/P/F/01</p> <p>C Glass canopy (approximate area 272m2)</p>	NOTE			
		NOTE			
		ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B2/1/5

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	DEMOLITION WORKS <u>DEMOLISH/REMOVE EXISTING SILICON RUBBER</u> Demolish/Remove the existing Silicon Rubber around the glass canopy and other necessary associated works related; make good affected structure and finishes including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing no. JKR/CA/14/10/101/W24/018/P/F/01.	ITEM			
	Glass canopy (approximate area 272m2) <u>DEMOLISH/REMOVE EXISTING METAL DECK ROOF</u> Demolition of roof finishes, ceiling, gutters, and rainwater downpipes (RWDP) on existing covered parking, along with all other necessary associated works including temporary works in accordance with the method statement provided by registered conservators. cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No.				
	Metal Deck Roof at Covered Parking (approximate area 530m2) (JKR/CA/14/10/101/W24/018/P/J/01-14) <u>DEMOLISH EXISTING DOOR</u> Demolish the existing door, frame, all accessories and other necessary associated works; make good affected structure and finishes including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No. JKR/CA/14/10/101/W24/018/P/KL/01				
C	Bilik Stor (approximate quantity 1 nos)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

B2/1/6

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS <u>DEMOLISH/REMOVE EXISTING FLOOR FINISHES</u> Demolish/Remove all types of floor finishes, including screeding or underlay and all other necessary associated works; make good affected structure and finishes including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No.				
A	Sapphire Room 1&2 (approximate area 260m2) (JKR/CA/14/10/101/W24/018/P/GHI/01)	ITEM			
B	Bilik Stor (approximate area 33m2) (JKR/CA/14/10/101/W24/018/P/KL/01)	ITEM			
	<u>SCRAPE OFF EXISTING EXTERNAL CEILING FINISHES</u> Scrape off loose paint, clean the structure and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good affected structure and finishes; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No. JKR/CA/14/10/101/W24/018/P/ABC/01				
C	Soffit Slab at Carpark (approximate area 2910m2)	ITEM			
D	Beam Slab at Carpark (approximate area 208m2)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B2/1/7

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS				
	<u>DEMOLISH EXISTING INTERNAL CEILING FINISHES</u>				
	Demolish all types of ceiling finishes, including framing and related temporary works, in accordance with the method statement provided by registered conservators. Inspect the cause of the watermark and determine whether it is due to a roof leak or a water pipe/roof water tank issue that needs to be repaired first; make good affected structure and finishes; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing.				
A	Sapphire Room 1&2 (approximate area 260m2) (JKR/CA/14/10/101/W24/018/P/GHI/05-06)	ITEM			
B	Pre Function Area (approximate area 65m2) (JKR/CA/14/10/101/W24/018/P/GHI/05-06)	ITEM			
C	Bilik Stor (approximate area 33m2) (JKR/CA/14/10/101/W24/018/P/P/KL/01-07)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B2/1/8

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS <u>SCRAPE OFF EXISTING EXTERNAL WALL FINISHES</u> Scrape off loose paint, clean the structure and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good affected structure and finishes; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No.				
A	Fasad Bahagian Dalam & Luar termasuk Dinding Sepanjang Koridor Fasad Hadapan, Belakang, Kanan & Kiri (approximate area 2500m2) (JKR/CA/14/10/101/W24/018/P/08/01-03)	ITEM			
B	Tangga Aras Bawah Bawah (ST-1 & ST-2) (approximate area 23m2) (JKR/CA/14/10/101/W24/018/P/DE/01)	ITEM			
C	Dinding Tangga CP-ST-1 & CP-ST-2 (approximate 32 area m2) (JKR/CA/14/10/101/W24/018/P/DE/01)	ITEM			
D	Tiang di Tempat Letak Kereta (approximate area 389 m2) (JKR/CA/14/10/101/W24/018/P/ABC/01)	ITEM			
	<u>SCRAPE OFF EXISTING INTERNAL WALL FINISHES</u> Remove all types of internal wall finishings, including non-structural wall framing, Scrape off loose paint, clean the structure and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good affected structure and finishes; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No.				
E	Sapphire Room 1&2 (approximate area 436m2) (JKR/CA/14/10/101/W24/018/P/GHI/03-04)	ITEM			
F	Bilik Stor (approximate area 100m2) (JKR/CA/14/10/101/W24/018/P/KL/01-07)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B2/1/9

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	DEMOLITION WORKS <u>DEMOLISH EXISTING RAIN WATER DOWN PIPE (RWDP)</u> Demolish existing RWDP; make good affected structure and finishes including temporary works related in accordance with the method statement provided by registered conservators; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No.				
A	Carpark ground floor (Coloum A7) (JKR/CA/14/10/101/W24/018/P/ABC/01-02)	ITEM			
B	Tiang berhampiran Tangga (JKR/CA/14/10/101/W24/018/P/DE/01)	ITEM			
	<u>SCRAPE OFF EXISTING EXTERNAL FENCING FINISHES</u> Scrape off loose paint, clean the structure and all other necessary associated works including temporary works related in accordance with the method statement provided by registered conservators; make good affected structure and finishes; cart away debris to contractor's own dump and prepare surface to receive new finishes/works as instructed by the S.O as shown in the drawing No.				
C	Fencing at Garden (approximate length 155m) (JKR/CA/14/10/101/W24/018/P/NO/01-03)	ITEM			
	<u>DISMANTLE EXISTING CABINET FROM SITE</u> Dismantle and remove from site all existing high cabinet as shown in the drawing no (JKR/CA/14/10/101/W24/018/P/GHI/01), (JKR/CA/14/10/101/W24/018/P/GHI/03) & (JKR/CA/14/10/101/W24/018/P/GHI/05)				
D	Sapphire room 1 (size 12.9M x 1.0M x 4.9M (H))	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

B2/1/10

B2/1/11

BILL NO. B2- BANGUNAN PAVILION (ALL PROVISIONAL)

Item	Description	From Page No.	Amount (RM)
1	<u>SUMMARY</u> DEMOLITION WORKS	B2/1/11	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Ringkasan Tender :	

B2/SUM/1

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN
DI BANGUNAN SULAIMAN, JALAN
SULTAN HISHAMUDDIN, KUALA
LUMPUR.**

SEKSYEN II

SENARAI KUANTITI

**BILL NO. C1- UPGRADING OF
BANGUNAN SULAIMAN
(ALL PROVISIONAL)**

C1/1/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<p>GENERAL NOTES FOR UPGRADING WORKS</p> <p><u>COLLECTION</u></p> <p>FROM PAGE NO. C1/1/1</p>	
	<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>C1/1/2</p>	<p>To Summary :</p>

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS</p> <p>Notes:</p> <p>This Bills is to read in conjunction with The Visual Condition Survey and Defect Mapping Report conducted by the Contractor based on TUB-09/2024 - Seksyen II - Part D and related documents. All preliminaries in conjunction to works shall be identified and estimated.</p> <p>The Contractor shall visit the site, inspect the existing premises and satisfy himself as to the nature and extent of the works and also the working conditions to be encountered. No claims for extra payment in this respect will be entertained.</p> <p>All works shall be stricly in compliance to Specifications provided and/or product Manufacturer's Instruction (hereinafters referred "as specified") and to the approval of the Superintending Officer. (hereinafter referred as "the S.O.").</p> <p>Rates to include supply all the necessary labours, materials, tools, safety measures, temporary access and supervision.</p> <p>Rate to include identifying and marking the defective areas and making good of any damages; including reinstatement of finishes or repainting matching existing finishes to the satisfaction and approval of S.O.</p> <p><u>STRUCTURAL REPAIR WORKS</u></p> <p><u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01</u></p>				
A	For cracks less than or equal to 0.3mm width	M	50		
B	For cracks ranging from 0.3mm to 3.0mm width	M	100		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

C1/2/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS <u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u> Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	M2	100		
	NON STRUCTURAL REPAIR WORKS <u>Brickwall Crack Repair (Cracks Exceeds Plaster Finishes)</u> Prepare concrete surface and to carry out repair works as per drawing no: JKR/CKAS/P/08/17/03 and reinstate the existing finishes/plaster to the satisfaction of S.O.				
	B For cracks less than 0.25mm width	M	50		
	C For cracks ranging from 0.25mm to 5.0mm width	M	50		
	D For cracks ranging from 0.25mm to 5.0mm width (Including through crack)	M	50		
	<u>Typical Column-Brickwall Interfacial Plaster Crack Repair</u> E To carry out crack repair as per drawing no: CPKA/FR/LP/KP/02 including removing approximately 40 mm width on each side of crack, installing one (1) layer of the galvanized wire mesh size SWG 14 (40mm) and replastering.	M	100		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

C1/2/2

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS <u>Typical Beam-Brickwall Interfacial Plaster Crack Repair</u> <u>To carry out crack repair as per drawing no: CKASJ.BFSJ.SRD/2010/1 including removing approximately 50 mm width on each side of crack, installing one (1) layer of the galvanized wire mesh size SWG 14 (80mm width) and replastering.</u>				
A	If gap width \leq 0.5mm exists at beam-brickwall interface, inject epoxy into gap.	M	100		
B	If gap width $>$ 0.5mm exists at beam-brickwall interface, pump pressure grout into gap.	M	100		
	<u>KERB (ARAS TANGKI)</u> <u>As per drawing no</u> <u>JKR/CKAS/15/01/W22/V28/BPH/BS/02[02]</u> Supply and install Vibrated Reinforced Concrete Class C32/40, with minimum cement content 300kg/m ³ and with free water content between 160-180kg/m ³ as specified				
C	100mm width x 100mm high kerb (Aras Tangki Air)	M	5		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/2/3

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Amount (RM)
	STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS <u>COLLECTION</u> FROM PAGE NO. C1/2/1 FROM PAGE NO. C1/2/2 FROM PAGE NO. C1/2/3	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Summary :

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>WATERPROOFING WORKS</p> <p>Notes:</p> <p>This Bills is to read in conjunction with The Visual Condition Survey and Defect Mapping Report conducted by the Contractor based on TUB-09/2024 and related documents. All preliminaries in conjunction to works shall be identified and estimated</p> <p>The Contractor shall visit the site, inspect the existing premises and satisfy himself as to the nature and extent of the works and also the working conditions to be encountered. No claims for extra payment in this respect will be entertained</p> <p>Rates to include supply all the necessary labours, materials, tools, safety measures, temporary access and supervision</p> <p>Rate to include identifying and marking the defective areas and making good of any damages; All voids, cracks and fillet edges, shall be repaired as per drawings and specifications and approved by the S.O.; to ensure the surface is sound, even and clean; including reinstatement of finishes or repainting matching existing finishes to the satisfaction and approval of S.O.</p> <p>To provide and remove transportation, plant, working platform, machinery and skill labour; and clearing all rubbish and foreign materials</p> <p>All works shall be stricly in compliance to Specifications provided and/or product Manufacturer's Instruction (hereinafters referred "as specified") and to the approval of the Superintending Officer. (hereinafter referred as "the S.O.")</p>				
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

C1/3/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
WATERPROOFING WORKS					
<u>SURFACE PREPARATION</u>					
A	Remove all existing related equipment prior to the removal of existing waterproofing; set aside for re-fixing and make good all works disturbed	SUM			
B	Hack all existing waterproofing and screed, down to concrete slab surface; prepare surfaces of the existing concrete slab and scupper drain, cleaning by means of air blower, water jet and sweeping as described; cart away the unwanted material to Contractor's own dump	M2	306		
<u>STRUCTURAL REPAIR WORKS</u>					
<u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01 and Specification of Concrete Crack Repair JKR 20601-0250-18</u>					
C	For cracks less than or equal to 0.3mm width	M	100		
D	For cracks ranging from 0.3mm to 3.0mm width	M	100		
<u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u>					
E	Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	M2	40		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/3/2

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WATERPROOFING WORKS POLYUREA WATERPROOFING AT APRON <u>To carry out waterproofing works as per drawing no: CKASJ.BFSJ.SRD/2012/07</u> <u>Waterproofing system shall include ponding test and ten (10) years of performance warranty (material and workmanship warranty) from the manufacturer's effective from the date of expiry of Defect and Liability Period (DLP).</u>				
	To lay 25mm (min) thick cement screed with minimal compressive strength of 20MPa; laid to fall 1:100 towards the directions of gutters or to nearest drainage outlets and all in accordance to the manufacturer's written instructions and drawings approved by the S.O. The base screed shall be allowed to cure for 7 days prior to the waterproofing system application.	M2	260		
	<u>Apply one (1) layer of epoxy resin base primer and two (2) layers of Polyurea waterproofing; coverage area at least 1.5kg/m2 per layer of Polyurea waterproofing; including to construct a cement screed angle fillet with lates & fibre mesh reinforces (35mm x 35mm) at edge of wall and 300mm high upturn water proofing at skirting and drop/riser; and laid using appropriate tool and in strict accordance to the manufacturer's written instructions approved by the S.O's.</u>				
	B i) Apron	M2	225		
	C ii) Apron Skirting; up to 450 mm high	M2	35		
D	To carry out Ponding Test on the waterproofing system	SUM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/3/3

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WATERPROOFING WORKS LIQUID APPLIED MEMBRANE (LAM) WATERPROOFING AT WATER TANK <u>To carry out waterproofing works as per drawing no: JKR/CKAS/15/01/W22/V28/BPH/BS/02(02)</u> <u>Waterproofing system shall include ponding test and ten (10) years of performance warranty (material and workmanship warranty) from the manufacturer's effective from the date of expiry of Defect and Liability Period (DLP).</u>				
	To lay 25mm (min) thick cement screed with minimal compressive strength of 20MPa; laid to fall 1:100 towards the directions of gutters or to nearest drainage outlets and all in accordance to the manufacturer's written instructions and drawings approved by the S.O. The base screed shall be allowed to cure for 7 days prior to the waterproofing system application.	M2	46		
	<u>Apply one (1) layer of epoxy resin base primer and two (2) layers of Liquid Applied Membrane with Antifracture Fabric; including to construct a cement screed angle fillet with lates & fibre mesh reinforces (35mm x 35mm) at edge of wall and 300mm high upturn water proofing at skirting and drop/riser; and laid using appropriate tool and in strict accordance to the manufacturer's written instructions approved by the S.O's.</u>				
	B i) Water Tank Slab	M2	35		
	C ii) Water Tank Slab Skirting; up to 300 mm high	M2	11		
D	To carry out Ponding Test on the waterproofing system	SUM			
E	POLYUREA WATERPROOFING WORKS FOR FLAT ROOF <u>SURFACE PREPARATION</u> Remove all existing related equipment prior to the removal of existing waterproofing; set aside for re-fixing and make good all works disturbed for:				
		SUM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

C1/3/4

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WATERPROOFING WORKS				
	Hack all existing waterproofing and screed, down to concrete slab surface; prepare surfaces of the existing concrete slab and scupper drain, cleaning by means of air blower, water jet and sweeping as described; cart away the unwanted material to Contractor's own dump	M2	110		
	STRUCTURAL REPAIR WORKS				
	<u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01 and Specification of Concrete Crack Repair JKR 20601-0250-18</u>				
	B For cracks less than or equal to 0.3mm width	M2	75		
C	For cracks ranging from 0.3mm to 3.0mm width	M2	35		
	<u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u>				
D	Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	M2	35		
	POLYUREA WATERPROOFING FOR FLAT ROOF				
	<u>To carry out waterproofing works as per drawing no: JKR/CKAS/15/01/W22/V28/BPH/BS/03(03)</u>				
	<u>Waterproofing system shall include ponding test and ten (10) years of performance warranty (material and workmanship warranty) from the manufacturer's effective from the date of expiry of Defect and Liability Period (DLP).</u>				

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN KL**

To Collection :

C1/3/5

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WATERPROOFING WORKS				
	To lay 25mm (min) thick cement screed with minimal compressive strength of 20MPa; laid to fall 1:100 towards the directions of gutters or to nearest drainage outlets and all in accordance to the manufacturer's written instructions and drawings approved by the S.O. The base screed shall be allowed to cure for 7 days prior to the waterproofing system application.	M2	110		
	<u>Apply one (1) layer of epoxy resin base primer and two (2) layers of Polyurea waterproofing; coverage area at least 1.5kg/m2 per layer of Polyurea waterproofing; including to construct a cement screed angle fillet with lates & fibre mesh reinforces (35mm x 35mm) at edge of wall and 300mm high upturn water proofing at skirting and drop/riser; and laid using appropriate tool and in strict accordance to the manufacturer's written instructions approved by the S.O's.</u>				
	B i) Flat Roof Slab	M2	90		
C	ii) Flat Roof Slab Skirting; up to 300 mm high	M2	20		
D	To carry out Ponding Test on the waterproofing system	SUM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/3/6

C1/3/7

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WINDOWS, VENT AND EXTERNAL DOORS <u>WINDOWS</u> <u>Supply and install the following window as shown in Drawing (JKR/CA/14/10/101/W24/018/BS/J/02)</u> <u>Glass Window including all necessary ironmongery fittings and fixing</u> Supply, deliver and install 1350mm x 2950mm high glass window including new solid frames of Grade SG1 (Chengal) ; complete with all necessary accessories and painting; all as per detail in the drawing and specification and all fixed in accordance with the method statement provided by registered conservators, manufacturer's details and Architect's approval and satisfaction. A Lobi Lift 1 ; TYPE 1 Supply, deliver and install 750mm x 2950mm high glass window including new solid frames of Grade SG1 (Chengal) ; complete with all necessary accessories and painting; all as per detail in the drawing and specification and all fixed in accordance with the method statement provided by registered conservators, manufacturer's details and Architect's approval and satisfaction. B Lobi Lift 1 ; TYPE 2	NO	1		
		NO	2		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

C1/4/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WINDOWS, VENT AND EXTERNAL DOORS <u>Supply and install silicon rubber as shown in Drawing (JKR/CA/14/10/101/W24/018/BS/R/02).</u> Supply, deliver and install approved silicon rubber around the window glass panel complete with all necessary work; all as per detail in the drawing and specification and all fixed in accordance with the method statement provided by registered conservators, manufacturer's details and Architect's approval and satisfaction.	M	175		
	Tingkap di Lobi Lift Belakang				
	<u>Supply and install the following louvers including all necessary ironmongery fittings and fixing as shown in drawing</u> Supply, deliver and install louvers including new solid frames of Grade SG1 complete with 12mm thick heat soaked tempered clear glass on both surfaces (outside and inside) including all necessary accessories as per detail in the drawing and specification and all fixed in accordance with the method statement provided by registered conservators, manufacturer's details and Architect's approval and satisfaction.				
	B Menara 4, 5 & 6 (louvers size; 1200mm x 1500mm ; JKR/CA/14/10/101/W24/018/BS/V/01)				
	C Menara 2 & 3 (louvers size; 1200mm x 1500mm ; JKR/CA/14/10/101/W24/018/BS/Y/02)				
D	Menara 1 (louvers size; 1200mm x 1200mm ; JKR/CA/14/10/101/W24/018/BS/W/02)	NO	9		
		NO	8		
D	Menara 1 (louvers size; 1200mm x 1200mm ; JKR/CA/14/10/101/W24/018/BS/W/02)	NO	4		
E	Fasad Tengah Kiri Kanan (JKR/CA/14/10/101/W24/018/BS/X/01)	NO	14		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL C1/4/2					To Collection :

Adendum bil.1 bertarikh 22/11/2024 - 10:40 AM

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	INTERNAL DOORS <u>SOLID DOOR</u> <u>Supply and install the following door as per Drawing (JKR/CA/14/10/101/W24/018/BS/T/01)</u> <u>Solid door including all necessary ironmongery fittings and fixing</u> Supply, deliver, and install a solid door with a new frame replicates the existing frame, complete with all necessary accessories and painting, as detailed in the drawings and specifications. All work must be completed in accordance with the method statement provided by registered conservators, as well as the manufacturer's details and the Architect's approval and satisfaction.	NO	1		
	Overall size 1600mm x 2100mm high solid door ; at Pejabat AIAC				
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<p>INTERNAL DOORS</p> <p><u>COLLECTION</u></p> <p>FROM PAGE NO. C1/5/1</p>	
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>To Summary :</p>		

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	EXTERNAL FLOOR FINISHES				
	<u>FLOOR FINISHINGS</u>				
	<u>BED AND BACKING</u>				
	<u>13mm Thick Cement and sand (1:3) screed bed as specified</u>				
	<u>To receive tile; level, falls, falls and crossfalls and to slope not exceeding 15 degree from horizontal; on concrete base</u>				
	A Drop Off Porch	M2	60		
	<u>100mm High to skirting; with bull nose on edge</u>				
	B Drop Off Porch	M	47		
	<u>Floor Finishes (Tiles) at Drop Off Porch as per in the drawing no</u>				
	<u>JKR/CA/14/10/101/W24/018/BS/I/01</u>				
	<u>Supply, deliver and install and complete approved floor tiles that match the existing floor finishes; bedded and jointed in cement and sand (1:3) mortar; pointing with grout in white cement polish with all as per Registered Conservators' and Architect's approval</u>				
	<u>To level, falls and crossfalls and to slope not exceeding 15 degrees from horizontal</u>				
	C Drop Off Porch	M2	60		
	<u>100mm High to skirting; with bull nose on edge</u>				
	D Drop Off Porch	M	47		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/6/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>EXTERNAL FLOOR FINISHES</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C1/6/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C1/6/2</div>		<div>To Summary :</div>

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
INTERNAL FLOOR FINISHES					
<u>FLOOR FINISHINGS</u>					
<u>BED AND BACKING</u>					
<u>13mm Thick Cement and sand (1:3) screed bed as specified</u>					
<u>To receive tile; level, falls, falls and crossfalls and to slope not exceeding 15 degree from horizontal; on concrete base</u>					
A	Tangga Tepi Bilik Pam	M2	40		
B	Tandas Lelaki Tengah	M2	26		
<u>100mm High to skirting; with bull nose on edge</u>					
C	Tangga Tepi Bilik Pam	M	39		
D	Tandas Lelaki Tengah	M	21		
<u>TILE FINISHINGS</u>					
<u>Tangga Tepi Bilik Pam as per drawing no. JKR/CA/14/10/101/W24/018/BS/E/01</u>					
<u>Tandas Lelaki Tengah as per drawing no. JKR/CA/14/10/101/W24/018/BS/O/01</u>					
<u>Supply, deliver, install and complete approved floor tiles that match to the existing floor finishes; bedded and jointed in cement and sand (1:3) mortar; pointing with grout in white cement polish in accordance with the method statement provided by registered conservators' and Architect's approval.</u>					
<u>To level, falls and crossfalls and to slope not exceeding 15 degrees from horizontal</u>					
E	Tangga Tepi Bilik Pam	M2	40		
F	Tandas Lelaki Tengah	M2	26		
<u>100mm High to skirting; with bull nose on edge</u>					
G	Tangga Tepi Bilik Pam	M	39		
H	Tandas Lelaki Tengah	M	21		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/7/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	INTERNAL FLOOR FINISHES				
	<u>RESURFACING OF INTERNAL FLOOR FINISHES</u> Resurfacing of the existing floor to receive approved new cement render, complete with a waterproofing layer at the appropriate slope (gradient) toward the scupper drain or floor trap, as detailed in the drawings and specifications. All work must be executed in accordance with the method statement provided by registered conservators and must include a manufacturer's warranty and a product warranty of ten (10) years, along with the Architect's approval and satisfaction, as shown in drawing no. JKR/CA/14/10/101/W24/018/BS/M/01				
	Rumah Pam Chiller	M2	54		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/7/2

Adendum bil.1 bertarikh22/11/2024 - 10:40 AM

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	EXTERNAL CEILING FINISHES				
	<u>CEILING FINISHINGS</u>				
	<u>IN-SITU FINSHINGS</u>				
	<u>SUSPENDED CEILINGS</u>				
	<u>Aluminium Strip Ceiling Structures</u>				
	<u>Supply, deliver, install and complete aluminium strip ceiling structures including all necessary works jointing, framing, support, hanges, accessories and finishing related in accordance with the method statement provided by registered conservators; all as per specifications and drawing no. JKR/CA/14/10/101/W24/018/BS/G/01</u>				
A	Kafeteria (Near Pool)	M2	80		
	<u>Boxed-Up Rain Water Down Pipe (RWDP) as per drawing no. JKR/CA/14/10/101/W24/018/BS/F/01 at Siling Koridor Luar (Kitchen)</u>				
B	Construct a new boxed-up plaster type ceiling including all necessary in accordance with the method statement provided by registered conservators and the latest JKR specification guidelines.	ITEM			
C	Upgrade the existing vent ducting by adding a 5mm thick stainless steel plate (welded) to the surface to prevent rainwater from flowing into the boxed-up ceiling, or the contractor shall propose a repair method for upgrading the vent ducting, subject to approval by the S.O.	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/8/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>EXTERNAL CEILING FINISHES</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C1/8/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C1/8/2</div>		<div>To Summary :</div>

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL CEILING FINISHES <u>CEILING FINISHINGS</u> <u>IN-SITU FINISHES</u> <u>Supply,deliver,install and complete approved ceiling structures and finishes that match to the existing ceiling finishes including all necessary works jointing, framing, support, hanges, painting and accessories in accordance with the method statement provided by registered conservators; all as per specifications, drawing and approval of the Arhitect and S.O.</u>				
A	Tandas OKU	M2	5		
B	Control Room Regent Auditorium	M2	40		
C	EXTRA OVER for forming access panel and including all necessary framing for each rooms <u>The contractor is required to follow the M&E requirements and guidelines for these works by referring to the M&E drawings</u>	ITEM			
D	<u>Supply,deliver,install and complete approved ceiling structures and finishes that match to the existing ceiling finishes including all necessary works jointing, framing, support, hanges, painting and accessories in accordance with the method statement provided by registered conservators; all as per specifications, drawing and approval of the Arhitect and S.O.</u> Aras Bawah Tanah – Aras 3 (All area affected due installation the fire protection system and electrical works)	M2	4830		
E	EXTRA OVER for forming access panel and including all necessary framing for each rooms	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

C1/9/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL CEILING FINISHES <u>Supply, deliver, install and complete approved plaster board ceiling structures including all necessary works jointing, framing, support, hanges, painting and accessories related in accordance with the method statement provided by registered conservators; all as per specifications, drawing and approval of the Arhictect and S.O.</u>				
A	Tepi Tangga (Lift)	M2	90		
B	Tandas lelaki & perempuan	M2	50		
C	Bilik Kompresor	M2	41		
D	Menara 4, 5 & 6	M2	139		
E	EXTRA OVER for forming access panel and including all necessary framing for each rooms	ITEM			
	<u>PAINTING AND DECORATING</u> PAINTING <u>Approved prepare and apply one (1) layer of skim coat and two (2) coats of emulsion paint or an equivalent as specified. The color should be approved by the S.O to match the existing finishes and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators.</u>				
F	Siling Ruang Pejabat	M2	480		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/9/2

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>INTERNAL CEILING FINISHES</p> <p><u>Boxed-Up Rain Water Down Pipe (RWDP) & RWDP Connecting System as per drawing no. JKR/CA/14/10/101/W24/018/BS/B/01-02 at Dinding & Tiang Grid E2/ES Sehingga E2/EC</u></p> <p>Construct a new boxed-up ceiling including all necessary works in accordance with the method statement provided by registered conservators and the latest JKR specification guidelines.</p>				
A	Size boxed-up ; 1000mm x 400mm x 300mm (H) ;	NO	14		
B	Replacement of the connecting system to match the existing system including all necessary works.	ITEM			
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p>					
<p>To Collection :</p>					

Adendum bil.1 bertarikh22/11/2024 - 10:40 AM

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>EXTERNAL WALL FINISHES</p> <p><u>PAINTING AND DECORATING</u></p> <p><u>PAINTING</u></p> <p><u>Approved prepare and apply one (1) layer of skim coat, one (1) layer of base paint, and two (2) coats of mineral based paint or lime wash paint. The color should be approved by the S.O to match the existing finishes on the plastered walls with a girth of over 300 mm and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators.</u></p>				
A	Fasad Dinding Luar Bangunan (Include Doors, Windows, Handrails & Decorative Grille Along Corridors And Stairs)	M2	9626		
B	EXTRA OVER to groove lines	M	1572		
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>To Collection :</p>					

C1/10/1

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>EXTERNAL WALL FINISHES</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C1/10/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C1/10/2</div>		<div>To Summary :</div>

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL WALL FINISHES <u>PAINTING AND DECORATING</u> <u>PAINTING</u> <u>Approved prepare and apply one (1) layer of skim coat, one (1) layer of base paint, and two (2) coats of anti-fungal emulsion paint or an equivalent as specified. The color should be approved by the S.O to match the existing finishes on the plastered walls with a girth of over 300 mm and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators.</u>				
A	Private Dining Room	M2	328		
B	Dinding & Tiang E2 ES/EC	M2	448		
C	Dinding Tangga 3	M2	70		
D	Bilik Tangki Air/Menara 5 & 6	M2	182		
E	Fasad Tengah	M2	61		
F	Menara 1	M2	141		
G	Menara 2 & 3	M2	183		
H	Menara 4	M2	63		
J	Lobi Lift 1	M2	220		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C1/11/1

Adendum bil.1 bertarikh 22/11/2024 - 10:40 AM

BILL NO. C1- UPGRADING OF BANGUNAN SULAIMAN (ALL PROVISIONAL)

Item	Description	From Page No.	Amount (RM)
	<u>SUMMARY</u>		
1	GENERAL NOTES FOR UPGRADING WORKS	C1/1/2	
2	STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS	C1/2/4	
3	WATERPROOFING WORKS	C1/3/7	
4	WINDOWS, VENT AND EXTERNAL DOORS	C1/4/3	
5	INTERNAL DOORS	C1/5/2	
6	EXTERNAL FLOOR FINISHES	C1/6/2	
7	INTERNAL FLOOR FINISHES	C1/7/3	
8	EXTERNAL CEILING FINISHES	C1/8/2	
9	INTERNAL CEILING FINISHES	C1/9/4	
10	EXTERNAL WALL FINISHES	C1/10/2	
11	INTERNAL WALL FINISHES	C1/11/2	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Ringkasan Tender :	
C1/SUM/1			

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN
DI BANGUNAN SULAIMAN, JALAN
SULTAN HISHAMUDDIN, KUALA
LUMPUR.**

SEKSYEN II

SENARAI KUANTITI

**BILL NO. C2- UPGRADING OF
BANGUNAN PAVILION
(ALL PROVISIONAL)**

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>GENERAL NOTES FOR UPGRADING WORKS</p> <p><u>GENERAL NOTE</u></p> <p><u>Information :</u></p> <p>A The contractor is required to visit the site to take quantity measurement again to obtain the actual sizes and dimensions to be demolished and replaced with new works.</p> <p><u>Shop Drawings</u></p> <p>B The contractor needs to prepare, submit, and obtain approval for construction from the S.O.'s Representative for all shop/working drawings related to the Contract Works, as required by the relevant Specifications in the Contract. Detailed final drawings must be prepared, calculated, and approved before installation.</p> <p><u>Upgrading Works</u></p> <p>C The contractor must provide appropriate repair proposals and must obtain confirmation from a certified engineer/architect</p> <p><u>Registered Conservator Method Statement</u></p> <p>D The contractor must adhere to the method statement provided by the Registered Conservator and comply with the latest JKR Specification.</p> <p><u>Laporan Pemeriksaan Kerosakan Arkitek</u></p> <p>E All demolition or upgrading works in this BQ shall be read together with the Laporan Pemeriksaan Kerosakan Arkitek as attached in Section III (Spesifikasi Dan Pengukuran Dan Faktor Menghargakan Senarai Kuantiti), Part A (i) Laporan & Terma Rujukan.</p>	NOTE			
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p>					<p>To Collection :</p>

To Collection :

C2/1/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<p>GENERAL NOTES FOR UPGRADING WORKS</p> <p><u>COLLECTION</u></p> <p>FROM PAGE NO. C2/1/1</p>	
	<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>To Summary :</p> <p>C2/1/2</p>	

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS</p> <p>Notes:</p> <p>This Bills is to read in conjunction with The Visual Condition Survey and Defect Mapping Report conducted by the Contractor based on TUB-01/2024 - Seksyen II - Part D and related documents. All preliminaries in conjunction to works shall be identified and estimated.</p> <p>The Contractor shall visit the site, inspect the existing premises and satisfy himself as to the nature and extent of the works and also the working conditions to be encountered. No claims for extra payment in this respect will be entertained.</p> <p>All works shall be stricly in compliance to Specifications provided and/or product Manufacturer's Instruction (hereinafters referred "as specified") and to the approval of the Superintending Officer. (hereinafter referred as "the S.O.").</p> <p>Rates to include supply all the necessary labours, materials, tools, safety measures, temporary access and supervision.</p> <p>Rate to include identifying and marking the defective areas and making good of any damages; including reinstatement of finishes or repainting matching existing finishes to the satisfaction and approval of S.O.</p> <p><u>STRUCTURAL REPAIR WORKS</u></p> <p><u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01</u></p>				
A	For cracks less than or equal to 0.3mm width	M	200		
B	For cracks ranging from 0.3mm to 3.0mm width	M	100		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
C2/2/1					

To Collection :

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS				
	<u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u>				
	Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	M2	25		
	<u>NON STRUCTURAL REPAIR WORKS</u>				
	<u>Brickwall Crack Repair (Cracks Exceeds Plaster Finishes)</u>				
	<u>Prepare concrete surface and to carry out repair works as per drawing no: JKR/CKAS/P/08/17/03 and reinstate the existing finishes/plaster to the satisfaction of S.O.</u>				
B	For cracks less than 0.25mm width	M	30		
C	For cracks ranging from 0.25mm to 5.0mm width	M	30		
D	For cracks ranging from 0.25mm to 5.0mm width (Including through crack)	M	30		
E	<u>Typical Column-Brickwall Interfacial Plaster Crack Repair</u>				
	To carry out crack repair as per drawing no: CPKA/FR/LP/KP/02 including removing approximately 40 mm width on each side of crack, installing one (1) layer of the galvanized wire mesh size SWG 14 (40mm) and replastering.	M	30		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/2/2

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS <u>Typical Beam-Brickwall Interfacial Plaster Crack Repair</u> <u>To carry out crack repair as per drawing no: CKASJ.BFSJ.SRD/2010/1 including removing approximately 50 mm width on each side of crack, installing one (1) layer of the galvanized wire mesh size SWG 14 (80mm width) and replastering.</u> A If gap width \leq 0.5mm exists at beam-brickwall interface, inject epoxy into gap. B If gap width $>$ 0.5mm exists at beam-brickwall interface, pump pressure grout into gap. BOXED UP (TEMPAT LETAK KERETA) <u>BOXED UP as per drawing no. JKR/CKAS/15/01/W22/V28/BPH/PV/ST/01[02] & 01[02]</u> C Break out a portion of the boxed-up CHS location to pour non-shrink grout. <u>Installation of Permanent Formwork for Grouting with Rebar 4H10</u> D To Supply and install permanent formwork to facilitate the grouting process. This includes positioning and securing reinforcement bars (rebar) as per the contractors and so work method. The work is to be executed with precision to ensure structural integrity and proper alignment. <u>Installation of Waterproofing on the CHS Before Grouting Works</u> E To apply a high-quality waterproofing membrane to the applicable areas of the Circular Hollow Section (CHS) prior to any grouting works. This step is critical to prevent water ingress and protect the structural components during the grouting process. Ensure all surfaces are properly cleaned and prepared for optimal adhesion.	M	20		
		M	20		
		ITEM			
		ITEM			
		ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					

To Collection :

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	<p>STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS</p> <p><u>Installation of Box-Up After Grouting Works with Original Finishes</u></p> <p>To construct and install box-up structures after grouting works ensuring that they match the original finishes as specified. This includes careful attention to detail in both the materials used and the aesthetic appearance, ensuring continuity with existing structures and compliance with project specifications.</p>	ITEM			
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>To Collection :</p>					

C2/2/4

Adendum bil.1 bertarikh 22/11/2024 - 10:40 AM

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>WATERPROOFING WORKS</p> <p>Notes:</p> <p>This Bills is to read in conjunction with The Visual Condition Survey and Defect Mapping Report conducted by the Contractor based on TUB-09/2024 and related documents. All preliminaries in conjunction to works shall be identified and estimated</p> <p>The Contractor shall visit the site, inspect the existing premises and satisfy himself as to the nature and extent of the works and also the working conditions to be encountered. No claims for extra payment in this respect will be entertained</p> <p>Rates to include supply all the necessary labours, materials, tools, safety measures, temporary access and supervision</p> <p>Rate to include identifying and marking the defective areas and making good of any damages; All voids, cracks and fillet edges, shall be repaired as per drawings and specifications and approved by the S.O.; to ensure the surface is sound, even and clean; including reinstatement of finishes or repainting matching existing finishes to the satisfaction and approval of S.O.</p> <p>To provide and remove transportation, plant, working platform, machinery and skill labour; and clearing all rubbish and foreign materials</p> <p>All works shall be strictly in compliance to Specifications provided and/or product Manufacturer's Instruction (hereinafters referred "as specified") and to the approval of the Superintending Officer. (hereinafter referred as "the S.O.")</p>				
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

C2/3/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATERPROOFING WORKS				
	WATERPROOFING WORKS FOR CARPARK				
	<u>SURFACE PREPARATION</u>				
A	Remove all existing related equipment prior to the removal of existing waterproofing; set aside for re-fixing and make good all works disturbed for	SUM			
B	Hack all existing waterproofing, construction joints and screed, down to concrete slab surface; prepare surfaces of the existing concrete slab and scupper drain, cleaning by means of air blower, water jet and sweeping as described; cart away the unwanted material to Contractor's own dump	M2	1116		
	STRUCTURAL REPAIR WORKS				
	<u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01 and Specification of Concrete Crack Repair JKR 20601-0250-18</u>				
C	For cracks less than or equal to 0.3mm width	M	500		
D	For cracks ranging from 0.3mm to 3.0mm width	M	500		
	<u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u>				
E	Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	M2	50		
	WATERPROOFING FOR CARPARK				
	Expansion Joint				
	<u>Control Joints/Expansion Joint as per drawing no JKR/CKAS/15/01/W22/V28/BPH/PV/WP/01(03)</u>				
	To Install new expansion Joint system including backer rod with Polyurethane sealant				
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/3/2

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WATERPROOFING WORKS				
	Control Joints/Expansion Joints Works				
	To create control joints/expansion joints by saw cut panel at max 3m x 3m intervals and to install new backer rod and polyurethane sealant	M	651		
	POLYURETHANE WATERPROOFING FOR CARPARK				
	<u>To carry out structural crack repair works as per drawing no: JKR/CKAS/15/01/W22/V28/BPH/PV/WP/01[03] and Specification of Concrete Crack Repair JKR 20601-0250-18</u>				
B	<u>Waterproofing system shall include ponding test and ten (10) years of performance warranty (material and workmanship warranty) from the manufacturer's effective from the date of expiry of Defect and Liability Period (DLP).</u>				
	To lay 25mm-150mm (min) thick chipping mix concrete with minimal compressive strenght of 20MPa; the work installing BRC A8; laid to fall 1:100 towards the directions of gutters or to nearest drainage outlets and all in accordance to the manufacturer's written instructions and drawings approved by the S.O. The base screed shall be allowed to cure for 7 days prior to the waterproofing system application.	M2	1116		
	<u>Apply one (1) layer of epoxy resin base primer and two (2) layers of Polyurethane waterproofing; coverage area at least 1.5kg/m2 per layer of Polyurea waterproofing; including to construct a cement screed angle fillet with lates & fibre mesh reinforces (35mm x 35mm) at edge of wall and 450mm high upturn water proofing at skirting and drop/riser; and laid using appropriate tool and in strict accordance to the manufacturer's written instructions approved by the S.O's.</u>				
C	Carpark	M2	1116		
D	Slab Skirting ; up to 450mm high	M2	91		
E	To carry out Ponding Test on the waterproofing system	SUM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/3/3

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATERPROOFING WORKS WATERPROOFING WORKS FOR RAINWATER HARVESTING TANK SURFACE PREPARATION A Remove all existing related equipment prior to the removal of existing waterproofing; set aside for re-fixing and make good all works disturbed for: B <u>Hack all existing waterproofing and screed, down to concrete slab surface; prepare surfaces of the existing concrete slab and scupper drain, cleaning by means of air blower, water jet and sweeping as described; cart away the unwanted material to Contractor's own dump.</u> STRUCTURAL REPAIR WORKS <u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01 and Specification of Concrete Crack Repair JKR 20601-0250-18.</u> C For cracks less than or equal to 0.3mm width D For cracks ranging from 0.3mm to 3.0mm width <u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u> E Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	SUM			
		M2	50		
		M	25		
		M	25		
		M2	20		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

C2/3/4

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>WATERPROOFING WORKS</p> <p>WATERPROOFING FOR RAINWATER HARVESTING TANK</p> <p><u>To carry out waterproofing works as per drawing no: CKASJ.BFSJ.SRD/2012/07</u></p> <p><u>Waterproofing system shall include ponding test and ten (10) years of performance warranty (material and workmanship warranty) from the manufacturer's effective from the date of expiry of Defect and Liability Period (DLP).</u></p> <p><u>Apply one (1) layer of coat primer at a rate of 0.3-0.4 kg/m2 followed by two (2) coats of SPAN approved waterproofing at approximately 0.4 kg/m2 per coat; including to construct a cement screed angle fillet with lates & fibre mesh reinforces (35mm x 35mm) at edge of wall and 300mm high upturn water proofing at skirting and drop/riser; and laid using appropriate tool and in strict accordance to the manufacturer's written instructions approved by the S.O's.</u></p>				
A	Water Tank	M2	50		
B	To carry out Ponding Test on the waterproofing system	SUM			
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>To Collection :</p>					

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATERPROOFING WORKS LIQUID APPLIED MEMBRANE (LAM) WATERPROOFING WORKS FOR WATER TANK <u>SURFACE PREPARATION</u>				
A	Remove all existing related equipment prior to the removal of existing waterproofing; set aside for re-fixing and make good all works disturbed for	SUM			
B	Hack all existing waterproofing and screed, down to concrete slab surface; prepare surfaces of the existing concrete slab and scupper drain, cleaning by means of air blower, water jet and sweeping as described; cart away the unwanted material to Contractor's own dump	M2	45		
	STRUCTURAL REPAIR WORKS <u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01 and Specification of Concrete Crack Repair JKR 20601-0250-18</u>				
C	For cracks less than or equal to 0.3mm width	M	20		
D	For cracks ranging from 0.3mm to 3.0mm width	M	20		
	<u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u>				
E	Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	M2	20		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WATERPROOFING WORKS LIQUID APPLIED MEMBRANE (LAM) WATERPROOFING FOR WATER TANK <u>To carry out waterproofing works as per drawing no: JKR/CKAS/15/01/W22/V28/BPH/BS/02(02)</u> <u>Waterproofing system shall include ponding test and ten (10) years of performance warranty (material and workmanship warranty) from the manufacturer's effective from the date of expiry of Defect and Liability Period (DLP).</u>				
	To lay 25mm (min) thick cement screed with minimal compressive strength of 20MPa; laid to fall 1:100 towards the directions of gutters or to nearest drainage outlets and all in accordance to the manufacturer's written instructions and drawings approved by the S.O. The base screed shall be allowed to cure for 7 days prior to the waterproofing system application.	M2	45		
	<u>Apply one (1) layer of epoxy resin base primer and two (2) layers of Liquid Applied Membrane with Antifracture Fabric; including to construct a cement screed angle fillet with lates & fibre mesh reinforces (35mm x 35mm) at edge of wall and 300mm high upturn water proofing at skirting and drop/riser; and laid using appropriate tool and in strict accordance to the manufacturer's written instructions approved by the S.O's.</u>				
	B Water Tank Slab	M2	35		
	C Water Tank Slab Skirting; up to 300 mm high	M2	10		
D	To carry out Ponding Test on the waterproofing system	SUM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/3/7

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	WATERPROOFING WORKS				
	POLYUREA WATERPROOFING WORKS FOR FLAT ROOF				
	<u>SURFACE PREPARATION</u>				
A	Remove all existing related equipment prior to the removal of existing waterproofing; set aside for re-fixing and make good all works disturbed for:	SUM			
B	Hack all existing waterproofing and screed, down to concrete slab surface; prepare surfaces of the existing concrete slab and scupper drain, cleaning by means of air blower, water jet and sweeping as described; cart away the unwanted material to Contractor's own dump	M2	505		
	STRUCTURAL REPAIR WORKS				
	<u>To carry out structural crack repair works as per drawing no: JKR/CKAS/P/08/IP/19/02/01 and Specification of Concrete Crack Repair JKR 20601-0250-18</u>				
C	For cracks less than or equal to 0.3mm width	M	350		
D	For cracks ranging from 0.3mm to 3.0mm width	M	150		
	<u>To carry out patch repair works by hand patching for areas less than or equal to 0.5 m2 and maximum depth of 30mm or half of main reinforcement bar diameter</u>				
E	Prepare concrete surface and reinforcement and to carry out repair works by applying patch repair mortar and testing as per drawing no: JKR/CKAS/P/08/IP/19/03/01 and Specification of Concrete Patch Repair JKR 20601-0254-19.	M2	150		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/3/8

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WATERPROOFING WORKS POLYUREA WATERPROOFING FOR FLAT ROOF <u>To carry out waterproofing works as per drawing no: JKR/CKAS/15/01/W22/V28/BPH/BS/02(02)</u> <u>Waterproofing system shall include ponding test and ten (10) years of performance warranty (material and workmanship warranty) from the manufacturer's effective from the date of expiry of Defect and Liability Period (DLP).</u> To lay 25mm (min) thick cement screed with minimal compressive strength of 20MPa; laid to fall 1:100 towards the directions of gutters or to nearest drainage outlets and all in accordance to the manufacturer's written instructions and drawings approved by the S.O. The base screed shall be allowed to cure for 7 days prior to the waterproofing system application.	M2	505		
	<u>Apply one (1) layer of epoxy resin base primer and two (2) layers of Polyurea waterproofing; coverage area at least 1.5kg/m2 per layer of Polyurea waterproofing; including to construct a cement screed angle fillet with lates & fibre mesh reinforces (35mm x 35mm) at edge of wall and 300mm high upturn water proofing at skirting and drop/riser; and laid using appropriate tool and in strict accordance to the manufacturer's written instructions approved by the S.O's.</u>				
	B Flat Roof Slab	M2	400		
	C Flat Roof Slab Skirting; up to 300 mm high	M2	105		
	D To carry out Ponding Test on the waterproofing system	SUM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/3/9

C2/3/10

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>ANTI-RUST</p> <p><u>CORROSION TREATMENT</u></p> <p>Notes:</p> <p>Existing steel structure rusting treatment shall refer to Specification For Structural Steel Work, JKR 20601-0272-22 and based on the drawings JKR/CKAS/P/15/PEL24/03(03)</p> <p>Rates to include supply all the necessary labours, materials, tools, safety measures, temporary access and supervision</p> <p>EXISTING STEEL STRUCTURE</p> <p><u>To carry out removal of rust / paint / stain on existing steel structure and to prepare surface for new protective coating before painting. To paint steel structure with anti rust paint / coating as approval by S.O.</u></p>				
A	Steel Structure Beam (Provisional quantity)	M2	300		
B	Steel Structure Column (Provisional quantity)	M2	50		
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>C2/4/1</p>					<p>To Collection :</p>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>ANTI-RUST</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C2/4/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C2/4/2</div>		<div>To Summary :</div>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	ROOF SILICON RUBBER <u>Supply and install silicon rubber as shown in Drawing JKR/CA/14/10/101/W24/018/P/F/01</u> Supply, deliver and install approved silicon rubber around glass canopy complete with all necessary work; all as per detail in the drawing and specification and all fixed in accordance with the method statement provided by registered conservators, manufacturer's details and Architect's approval and satisfaction.	M2	272		
	Glass Canopy RAINWATER INSTALLATION PLUMBING AND MECHANICAL INSTALLATION PIPEWORK <u>Supply and install uPVC rainwater downpipe as shown in Drawing JKR/CA/14/10/101/W24/018/P/ABC/01-02 & JKR/CA/14/10/101/W24/018/P/DE/01-02</u> <u>uPVC rainwater downpipe; joints in the running length; support at average 500mm centre</u> <u>Replace the identified damaged rainwater downpipe with an identical type that matches the existing and the contractor shall provide shop drawings for the Architect's approval.</u>				
B	110mm Diameter In standard bracket including all necessary fixings fixed to wall or column including extra bend, swan neck and shoes	ITEM			
C	METAL DECK ROOF as per drawing no. JKR/CA/14/10/101/W24/018/P/J/01-14 Roof coverings approved selected Powder Coated Metal Deck Roofing at 1' Pitch x 60kg/m ³ Rockwool Insulation with one layer double sided sisalation and chicken wire mesh as specified; nominal overall thickness 0.75mm; fixing and lapping all as per manufacturer's instructions.	M2	530		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/5/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	ROOF				
	<u>FASCIA BOARD as per drawing no. JKR/CA/14/10/101/W24/018/P/J/01-06 & JKR/CA/14/10/101/W24/018/P/J/13</u>				
	250mm X 12mm thick cement board fascia board with one (1) undercoat paint and two (2) coat weatherproof paint; all approved by the S.O.	M	85		
B	<u>GUTTER as per drawing no. JKR/CA/14/10/101/W24/018/P/J/01-06 & JKR/CA/14/10/101/W24/018/P/J/13</u>				
	300mm x 150mm x 84500mm galvanised iron (GI) gutter to profile as described with 100mm diameter UPVC rainwater downpipe and water outlet strainer including seat on 12mm thick waterproofing plywood backing and all necessary supports, fittings accessories in accordance with the manufacturers details.	M	85		
C	LIPPED CHANNELS				
	<u>C-Channel Purlin works as specified minimum at Grade S275 according to JKR Standard Specification for Structural to JKR Standard Specification for Structural Steel Works (JKR 20601-0272-22) and JKR Standard Specification for Building Works 2020-Section J:Structural Steel And Metalworks and its latest amendments; including all necessary cutting, 1 nos bolt m10 gred 8.8, Equal Angle 50mm x 50mm x 4mm thick fillet weld, transportation, handling and hoisting and surface cleaning as specified, as per drawing no.JKR/CKAS/15/01/W22/V28/BPH/PV/ST/01[02] and 02[02]</u>				
	100mm -125mm x 65mm x 16mm x 1.6kg/m; C-Purlin	KG	680		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

C2/5/2

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>ROOF</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C2/5/1</div> <div>FROM PAGE NO. C2/5/2</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C2/5/3</div>		<div>To Summary :</div>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>STAIRS</p> <p><u>PAINTING AND DECORATING</u></p> <p><u>PAINTING</u></p> <p><u>Approved prepare and apply one coat alkali-resisting primer, one (1) layer of base paint, and two (2) coats emulsion paint or an equivalent as specified. The color should be approved by the S.O to match the existing finishes and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators.</u></p>				
A	To soffits of landing slabs on plastering; over 300mm girth	M2	23		
B	To sloping soffits of staircase on plastering; over 300mm girth	M2	22		
C	To 300mm high sides of riser	M2	6		
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>To Collection :</p>					

C2/6/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>STAIRS</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C2/6/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C2/6/2</div>		<div>To Summary :</div>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	WINDOWS, VENT AND EXTERNAL DOOR <u>DOOR</u> <u>FIRE RATED DOOR</u> <u>Supply and install the following door as shown in Drawing (JKR/CA/14/10/101/W24/018/P/KL/01-07)</u> <u>Fire Rated Door including all necessary ironmongery fittings and fixing</u> Supply, delivery and install fire rated door complete with all necessary accessories and painting; all as per detail in the drawing and specification and all fixed in accordance with the method statement provided by registered conservators, manufacturer's details and Architect's approval and satisfaction	NO	1		
	Overall size 1800mm high x 2100mm wide double leaf door ; at BILIK STOR (PR1)				
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

C2/7/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<p>WINDOWS, VENT AND EXTERNAL DOOR</p> <p><u>COLLECTION</u></p> <p>FROM PAGE NO. C2/7/1</p>	
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</p> <p>C2/7/2</p>		<p>To Summary :</p>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	INTERNAL FLOOR FINISHES				
	<u>FLOOR FINISHINGS</u>				
	<u>BED AND BACKING</u>				
	<u>13mm Thick Cement and sand (1:3) screed bed as specified</u>				
	<u>To receive tile; level, falls, falls and crossfalls and to slope not exceeding 15 degree from horizontal; on concrete base</u>				
	Bilik Stor	M2	33		
	<u>100mm High to skirting; with bull nose on edge</u>				
	Bilik Stor	M	30		
B	<u>TILE FINISHINGS</u>				
	<u>Bilik Stor as per drawing no. JKR/CA/14/10/101/W24/018/P/KL/02</u>				
	<u>Supply, delivery, install and complete approved ceramic tiles; bedded and jointed in cement and sand (1:3) mortar; pointing with grout in white cement polish with all in accordance with the method statement provided by registered conservators and Architect's approval.</u>				
	<u>To level, falls and crossfalls and to slope not exceeding 15 degrees from horizontal</u>				
C	Bilik Stor	M2	33		
	<u>100mm High to skirting; with bull nose on edge</u>				
D	Bilik Stor	M	30		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/8/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL FLOOR FINISHES <u>FLOOR FINISHINGS</u> <u>FITTED CARPET at Sapphire Room 1 & 2 as per in the drawing no JKR/CA/14/10/101/W24/018/P/GHI/01-02</u> <u>Supply, deliver, install and complete approved modular carpet tile, yarn: 100% Premium PA6 Nylon, construction: multi level loop pile, stain protection: 3m Scotchgard, pre-coat: vinnapas, total weight :+/- 10mm, backing: oc everbond bac (cushion), certification: SIRIM MS/ CRI green label plus, limited warranty with all in accordance with the method statement provided by registered conservators and Architect's approval.</u>				
A	To level falls and crossfall and to slope not exceeding 15 degrees from horizontal	M2	260		
B	150mm High timber skirtings	M	111		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/8/3

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	EXTERNAL CEILING FINISHES <u>CEILING FINISHES</u> <u>IN-SITU FINISHES</u> <u>Aluminium Strip Ceiling Structures (Covered Parking)</u> Supply,deliver,install and complete aluminium strip ceiling structures fixed to 'L' angle aluminium frame including all necessary works jointing, framing, support, hanges, accessories and finishing related in accordance with the method statement provided by registered conservators; all as per specifications and drawing no. JKR/CA/14/10/101/W24/018/P/J/08, JKR/CA/14/10/101/W24/018/P/J/10 & JKR/CA/14/10/101/W24/018/P/J/12. Covered Parking	M2	530		
	<u>PAINTING AND DECORATING</u> <u>PAINTING</u> <u>Approved prepare and apply one (1) layer of skim coat, one (1) layer of base paint, and two (2) coats of anti-fungal emulsion paint or an equivalent as specified. The color should be approved by the S.O to match the existing finishes and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators.</u>				
	B Carpark Soffit Slab C Carpark Beam Slab	M2 M2	2910 208		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

C2/9/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>EXTERNAL CEILING FINISHES</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C2/9/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C2/9/2</div>		<div>To Summary :</div>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	INTERNAL CEILING FINISHES	M2	33		
	<u>CEILING FINISHES</u>				
	<u>IN-SITU FINISHES</u>				
	<u>Supply,delivery,install and complete approved gypsum board (cemboard) fixed ceiling with system including all necessary works jointing, framing, support, hanges, painting, accessories and finishing related in accordance with the method statement provided by registered conservators; all as per specifications, drawing and approval of the Architect and S.O.</u>				
B	EXTRA OVER for forming access panel and including all necessary framing	ITEM			
C	<u>PAINTING AND DECORATING</u>	M2	259		
	<u>PAINTING</u>				
	<u>Approved prepare and apply one (1) layer of skim coat, one (1) layer of base paint, and two (2) coats of anti-fungal emulsion paint or an equivalent as specified. The color should be approved by the S.O to match the existing finishes and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators.</u>				
	Saphire Room 1 & 2				
D	Pre Function Area	M2	65		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

C2/10/1

Adendum bil.1 bertarikh 22/11/2024 - 10:40 AM

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	EXTERNAL WALL FINISHES				
	<u>PAINTING AND DECORATING</u>				
	<u>PAINTING</u>				
	<u>Approved prepare and apply one (1) layer of skim coat, one (1) layer of base paint, and two (2) coats of of mineral based paint or lime wash paint. The color should be approved by the S.O to match the existing finishes on the plastered walls with a girth of over 300 mm and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators</u>				
A	Fasad Luar Bangunan including Doors, Windows, Handrails & Decorative Grille Along Corridors And Stairs	M2	2500		
B	Tiang di Tempat Letak Kereta	M2	389		
C	EXTRA OVER for groove lines - Fasad Luar Bangunan	M	1878		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/11/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>EXTERNAL WALL FINISHES</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C2/11/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C2/11/2</div>		<div>To Summary :</div>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	INTERNAL WALL FINISHES				
	<u>PAINTING AND DECORATING</u>				
	<u>PAINTING</u>				
	<u>Paint as specified</u>				
	<u>Approved prepare and apply one (1) layer of skim coat, one (1) layer of base paint, and two (2) coats of anti-fungal emulsion paint or an equivalent as specified. The color should be approved by the S.O to match the existing finishes on the plastered walls with a girth of over 300 mm and the paint shall include a manufacturer's warranty and a product warranty of ten (10) years. All work must be carried out in accordance with the method statement provided by registered conservators.</u>				
A	Bilik Stor	M2	100		
B	Saphire Room 1 & 2	M2	514		
C	Tangga CP-ST-1 & CP-ST-2	M2	32		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

C2/12/1

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>INTERNAL WALL FINISHES</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. C2/12/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>C2/12/2</div>		<div>To Summary :</div>

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	FITTINGS AND FURNISHINGS <u>BUILT-IN CABINET</u> <u>Supply, deliver, install, and complete an approved MDF wood built-in cabinet with a veneer finish, including all ironmongery, painting, accessories, and other finishes as specified. The pattern should be approved by the S.O. to match the existing built-in cabinet pattern in accordance with the method statement provided by registered conservators all as shown in drawing No. JKR/CA/14/10/101/W24/018/P/GHI/01, JKR/CA/14/10/101/W24/018/P/GHI/02, JKR/CA/14/10/101/W24/018/P/GHI/03, JKR/CA/14/10/101/W24/018/P/GHI/04, JKR/CA/14/10/101/W24/018/P/GHI/05 and JKR/CA/14/10/101/W24/018/P/GHI/06.</u>				
A	Built in cabinet overall size 12.9M x 1.0M x 4.9M (H)	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					

To Collection :

C2/13/1

C2/13/2

BILL NO. C2- UPGRADING OF BANGUNAN PAVILLION (ALL PROVISIONAL)

Item	Description	From Page No.	Amount (RM)
	<u>SUMMARY</u>		
1	GENERAL NOTES FOR UPGRADING WORKS	C2/1/2	
2	STRUCTURAL AND NON-STRUCTURAL REPAIR WORKS	C2/2/5	
3	WATERPROOFING WORKS	C2/3/10	
4	ANTI-RUST	C2/4/2	
5	ROOF	C2/5/3	
6	STAIRS	C2/6/2	
7	WINDOWS, VENT AND EXTERNAL DOOR	C2/7/2	
8	INTERNAL FLOOR FINISHES	C2/8/3	
9	EXTERNAL CEILING FINISHES	C2/9/2	
10	INTERNAL CEILING FINISHES	C2/10/2	
11	EXTERNAL WALL FINISHES	C2/11/2	
12	INTERNAL WALL FINISHES	C2/12/2	
13	FITTINGS AND FURNISHINGS	C2/13/2	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Ringkasan Tender :	
C2/SUM/1			

JABATAN KERJA RAYA MALAYSIA

KERJA-KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR

SEKSYEN II

SENARAI HARGA / SENARAI KUANTITI

BILL D - MECHANICAL WORKS

BILL D - MECHANICAL WORKS**SCHEDULE OF PRICES**

The tenderer shall complete this Schedule of Prices at the time of tender. The Government is under no obligation to accept the lowest tender and reserves the right to accept any tenders in part or full and to vary the quantities stated with no variation To the rates.

The prices entered in this schedule shall be for the supply, installation, testing and commissioning of the complete system and ancillary equipment/works in accordance with the requirements of the specification and drawing together with one (1) year (12 months) maintenance and guarantee as specified.

The tenderer shall give an accurate breakdown of the tender price sum for the whole works in the price schedule below. The tender price breakdown shall be inclusive of the cost of material, labour charges and all other incidentals necessary for the completion of the said works.

Where works are specified in the specifications or tender drawings or incidental to the contract and no corresponding price breakdown item are provided for, the cost of such work shall be deemed to be included under the relevant items of works in the tend tender price breakdown below.

For cases where there are discrepancies in quantities in the tender document, the higher quantity shall take precedent and applicable for the purpose tender pricing and the contractor shall clearly indicate in his tender submission.

The tender price breakdown may be used as a basis of making progress payment. However, the Superintending Officer or his representative reserves the rights to vary the price breakdown by making the necessary adjustment if in his opinion the breakdown given by the tenderer is unreasonable, when making such payment. Being a lump sum contract the full tender sum, after making adjustments for any variation to the works, shall be paid upon completion of all works specified.

The price of any variation to the works shall not necessarily be based on the corresponding price breakdown, if deemed reasonable it may be used, otherwise it shall be on agreed rates.

Where work is specified or incident to the contract and no corresponding payment item has been allowed for, the cost of such work shall be deemed to be included under the relevant items of work listed in the summary below.

BILL D - MECHANICAL WORKS**D.1 General Works**

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
1.1	Preparation of 12 copies of Contract Documents c/w hard cover binding and 1 no. of copies of Contract Documents in digital CD.	LS	LS		
1.2	<p><u>As-built Drawings</u></p> <p>Pursuant to the terms of the contract, the Contractor shall provide approved As-built drawings as follows:</p> <p>a) 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;</p> <p>b) Four (4) sets of Digital Copies in AutoCAD (.dwg) or any other compatible format to be stored in compact discs or removable storage; and</p> <p>c) Four (4) sets of Digital Copies in Acrobat (.pdf) or any other compatible format to be stored in compact discs or removable storage.</p> <p>The As-built drawings 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.</p>	LS	LS		
1.3	To provide sufficient number of waste containers at works are carried out. All construction waste shall be disposed from site regularly.	LS	LS		
1.4	4 sets of shop drawings for all related works.	LS	LS		
1.5	Management cost for attending site meetings, supervision and coordination of work for duration of contract.	LS	LS		
1.6	Management cost for attending site meetings, supervision and coordination of work for duration of contract.	LS	LS		
1.7	Preparation of monthly progress report inclusive digital photo.	LS	LS		
1.8	Submission of Operation & Maintenance Manual and training required	LS	LS		
1.9	Painting of the complete system, Identification, Names Plates, etc. as per drawing, specification and the approval of Jabatan Warisan Negara.	LS	LS		
1.10	Testing and Commissioning as per specification	LS	LS		
to be carry to the next page					

BILL D - MECHANICAL WORKS

D.1 General Works

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
carried from previous page					
1.11	All Civil Works necessary for complete installation of the above systems include coring, cutting, digging, drilling, cart away debris, etc. and making good to S.O satisfaction.	LS	LS		
1.12	One Year Maintenance During Maintenance and Defect Liability Period.	LS	LS		
1.13	Submission cost and fees to all relevant authorities including Jabatan Warisan Negara and Jabatan Bomba dan Penyelamat Malaysia.	LS	LS		
1.14	Other Works Other works not included in this section and/or Bills but necessary for the satisfactory completion of the installation works (please specify):- b) c)				
Total to be carried to SUMMARY OF PRICES					

BILL D - MECHANICAL WORKS**D.2 Fire Fighting System**

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
2.1	Heavy duty electric motor pump set (shall be Bomba Approved) c/w starter, couplings, base plate, neoprene pads, concrete plinth etc. as per drawing and specification.	LOT	1		
2.2	Heavy duty standby diesel engine pump set (shall be Bomba Approved) c/w diesel tank, base plate, neoprene pads, concrete plinth, insulated exhaust pipe, etc. as per drawing and	LOT	1		
2.3	Fuel tank as per drawing and specification.	LOT	1		
2.4	Heavy duty maintenance free lead acid rechargeable type battery and metal box as per drawing and specification	LOT	1		
2.5	Swing Universal Type Hydraulic Hose Reels each c/w 30m long 25mm diameter hose, 25mm diameter stop valve and shut-off nozzle, etc. as per drawing and specification.	SET	38		
2.6	Hose reel steel cabinet & lock set, etc.	SET	38		
2.7	Electrical works (power and control) as per drawings and specification.	LOT	1		
2.8	Pump switchboard c/w cablings, conduits, control wiring between switchboard and various equipment, automatic controls, alarms, single line schematic circuit diagram, overvoltage protector, earthing, voltmeter, ammeter, etc. as per drawing and specification.	LOT	1		
2.9	Lightning surge protector as per drawing and specification.	LOT	1		
2.10	Alarm for hose reel system (outside pump room) as per specification.	LOT	1		
2.11	Under ground and above ground pipe works c/w valves, fittings, supports and hangers, pressure gauges, pressure switches, automatic air release valves etc. as per drawing & specification and painting all the pipes as per approved by Jabatan Warisan Negara.	LOT	1		
2.12	Making good, repaint and taking all the necessary works for the existing Hot- dipped galvanised pressed steel water tank c/w water level indicator (stainless steel wire rope), electrodes c/w holder and spacer, ball valve, cover, ladder, overflow pipe, scour pipe, etc. as per drawing and	LOT	1		
2.13	Painting all the pipe for the Hose Reel System with selected colour by the architect c/w the red stripes for identification of fire fighting pipes at selected area as per approved by the S.O and Jabatan Warisan Negara.	LS	1		
To be carried to the next page					

BILL D - MECHANICAL WORKS**D.2 Fire Fighting System**

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
carried from previous page					
2.14	Wiring and connecting the hose reel pumps signals and indication to the existing Main Fire Alarm Panel for standby signal, operation signal and faulty signal.	LOT	1		
2.15	Sample Board, sample of workmanship (mock up) for approval of S.O.	LOT	1		
2.16	Item not included above, but shown in the drawings, described in the specifications, required by the legislation or obviously necessary for the successful completion and efficient operation of the entire installation. If none is required please write 'NIL' otherwise full details of items are to be given. (Please Give Detail):-	LOT	1		
	a)				
	b)				
Total to be carried to SUMMARY OF PRICES					

BILL D - MECHANICAL WORKS**D.3 Pool Pump**

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
3.1	To supply and install an electric pool pump set (PP-01-01) c/w strainer, sand filter, automatic chlorine feeder / chlorinator, valves and all necessary accessories for the pump to operate etc.	SET	1		
3.2	To supply and install electrical switchboard and control panel (for electrical pool pump PP-01-01) c/w cablings, conduits, control wiring between switchboard and various equipment, automatic controls, alarms, single line schematic circuit diagram, overvoltage protector, earthing, voltmeter, ammeter, etc.	SET	1		
3.3	Electric pool pump set (PP-01-02) c/w strainer, sand filter, automatic chlorine feeder / chlorinator, valves and all necessary accessories for the pump to operate etc.	SET	1		
3.3	To supply and install lectrical switchboard and control panel (for electrical pool pump (PP-01-02) c/w cablings, conduits, control wiring between switchboard and various equipment, automatic controls, alarms, single line schematic circuit diagram, overvoltage protector, earthing, voltmeter, ammeter, etc.	SET	1		
Total to be carried to SUMMARY OF PRICES					

BILL D - MECHANICAL WORKS**D.4 Testing, Adjusting, Balancing & Commissioning Works**

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
4.1	Testing, adjusting, balancing and commissioning of mechanical works at Delivery Stage. a. Visual Inspection	LS	1		
4.2	Testing, adjusting, balancing and commissioning of mechanical works at Installation Stage. a. Visual Inspection b. Hydrostatic Pressure Test c. Pipe Flushing and Leak Test d. Cable Continuity Test e. Test Pipe f. Pneumatic Test	LS	1		
4.3	Testing, adjusting, balancing and commissioning of mechanical works at Functional Performance Stage. a. Pump Operating Test b. Vibration and Noise Level Test c. Testing of Electrical Wiring d. Essential Power Supply for Electric Pump Inspection e. The furthest and Hisghest Hose Reel f. Control Panel operational test g. Automatic Air Release Valve (AARV) Test h. Fire Alarm Panel Operational Test i. Batteries Test j. Devices and Signalling Operational Test k. Switchboard Power Supply Test	LS	1		
4.4	<u>Post Occupancy Test</u> Adjustment to the system controls (Re-banlancing, re-tuning, re-checking and re-adjustment etc.)	LS	1		
Total to be carried to SUMMARY OF PRICES					

BILL D - MECHANICAL WORKS

D.4 SUMMARY OF PRICES

The total tender sum for the supply, delivery, installation, testing and commisioning inclusive one (1) year servicing and maintenance for the Fire Fighting System and Ancillary Works is as follow:

No.	Description	Price (RM)
1	D.1. General Works	
2	D.2. Fire Fighting System	
3	D.3. Pool Pump	
4	D.4. Testing, Adjusting, Balancing & Commissioning Works	
	TOTAL (TO BE CARRIED OUT TO THE FINAL AMOUNT OF THE TENDER)	

Ringgit Malaysia (RM) :

Tandatangan Kontraktor :

Nama dan Alamat :
(Dengan Cop)

Tarikh :

Tandatangan Saksi :

Nama dan Alamat :
(Dengan Cop)

BILL D - MECHANICAL WORKS

D.5 Schedule of Installation

The Tenderer must submit the following information, ascertaining his capability to complete the

No.	Description	Weeks
1	Inspection and repairing of existing system	
2	Delivery period of equipment from award of tender	
3	Installation period required	
4	Testing and commissioning period of equipment required	
	TOTAL (Weeks)	

Tandatangan Kontraktor :

Nama dan Alamat :
(Dengan Cop)

Tarikh :

Tandatangan Saksi :

Nama dan Alamat :
(Dengan Cop)

Tarikh :

BILL D - MECHANICAL WORKS**D.6 SCHEDULE OF EQUIPMENT OFFERED****D.6.1 PROJECT INFORMATION**

The tenderer shall complete this Schedule of Technical Data for Equipment Offered as set out below. All information for, shall be given correctly and supported by copies of manufacturer's published technical data for the equipment being offered.

The tenderer is required to supply all the information as stipulated below and must be specific with regards to the make or manufacturer of the equipment offered. The words "or approved equivalent" wherever stated by the tenderer shall be deemed void.

D.6.2 FIRE FIGHTING EQUIPMENT

NO.	ITEMS	JKR REQUIREMENT	CONTRACTOR'S OFFER
1.0	Electrical Pumpset		
	No. of pump offered	1 Nos	
	Manufacturer	To state by tenderer	
	Country of origin	To state by tenderer	
	Model	To state by tenderer	
	Type	Heavy Duty	
	Material of impeller	Stainless Steel	
	Material of shaft	Stainless Steel	
	Type of seal	Mechanical	
	Motor power rating	To state by tenderer	
	Flow rate of pump (liter/min)	120	
	Total head of pump (ft)	280	
	Efficiency of pump (%)	60	
	Manufacturer of electric motor	To state by tenderer	
	Model no. of electric motor	To state by tenderer	
	Power rating (kW)	To state by tenderer	
	Rpm of motor	≤2900	
	Electrical characteristics (volts/frequency/phase)	To state by tenderer	
	Class of insulation	F	
	Type of starter	To state by tenderer	
	Brand name of starter	To state by tenderer	
	Set starting pressure	To state by tenderer	
	Set shut off pressure	To state by tenderer	
	Attached pump test certification	Yes	
2.0	Diesel Engine Pumpset		
	No. of pump offered	1 Nos	
	Manufacturer	To state by tenderer	
	Country of origin	To state by tenderer	
	Model no.	To state by tenderer	
	Type	Heavy Duty	
	Material of impeller	Stainless Steel	
	Material of shaft	Stainless Steel	
	Type of seal	Mechanical	
	Max. pumping power base on total head@ 120 liter/min flow	To state by tenderer	
	Flow rate of pump (liter/min)	120	
	Total head of pump (ft)	280	
	Efficiency of pump (%)	60	
	Rpm of motor	≤2900	
	No. of cylinder	To state by tenderer	
	Piston displacement	To state by tenderer	
	Mode of cooling	To state by tenderer	
	Automatic start provided	Yes	
	Manual start/stop provided	Yes	
	Capacity of diesel tank (litre)	Min. 30 Litre	
	Specific fuel consumption at max. torque	To state by tenderer	
	Exhaust pipe material	To state by tenderer	
	Type of insulation exhaust pipe	Calcium Silicate	
	Attached pump test certification	Yes	
3.0	Battery c/w cabinet & lock set (Diesel)		
	Louvers cabinet lockable	Yes	
	Manufacturer of battery	To state by tenderer	
	Country of origin	To state by tenderer	
	Model no. of battery	To state by tenderer	
	Ampere hour	5 Hour	
	Rated voltage	To state by tenderer	
	Number of batteries	To state by tenderer	
	Type of batteries	Heavy duty maintenance free lead acid rechargeable	
	Overall dimension	To state by tenderer	
	Conforming standard (attach certificate)	Yes	

NO.	ITEMS	JKR REQUIREMENT	CONTRACTOR'S OFFER
4.0	Hose Reel		
	No. of hose reel offered	38 Nos	
	Manufacturer of reel	To state by tenderer	
	Type of reel	Swing Universal	
	Diameter of reel	Max 750 mm	
	Manufacturer of hose	To state by tenderer	
	Internal diameter of hose	25 mm	
	Length of each hose	30 m	
	Working pressure of hose	10 bar	
	Bursting pressure of hose	42 bar	
	Make of stop valve	To state by tenderer	
	Type of stop valve	To state by tenderer	
	Make of nozzle	To state by tenderer	
	Type of nozzle	Shut-off	
	Dimension cabinet	To state by tenderer	
	Conforming standard (attach certificate)	Yes	
5.0	Piping		
	1. Above ground		
	Manufacturer of pipes	To state by tenderer	
	Class of pipe	C	
	Material of pipe	Galvanised steel	
	Conforming standard (attach certificate)	Yes	
	2. Under ground	Pre-insulated factory wrapping externally with Bituminous	
	Manufacturer of Bituminous	To state by tenderer	
	Thickness of wrapping material	To state by tenderer	
	Manufacturer of pipes	To state by tenderer	
	Class of pipe	C	
	Material of pipe	Galvanised steel	
	Conforming standard (attach certificate)	Yes	
6.0	Type of Pipe Jointing		
	50 mm diameter and above	Screw	
	65 mm diameter and above	Welded/Mechanical Joint	
	Manufacturer's name	To state by tenderer	
	Make and model no.	To state by tenderer	
	Type	To state by tenderer	
	Diameter	To state by tenderer	
	Material of body	To state by tenderer	
	Material of jointing	To state by tenderer	
	Rated working pressure	To state by tenderer	
	Conforming standard (attach certificate)	Yes	
7.0	Fittings		
	Gate Valve (Make and Type)	To state by tenderer	
	Conforming standard (attach certificate)	Yes	
	Check Valve (Make and Type)	To state by tenderer	
	Conforming standard (attach certificate)	Yes	
	Strainer (Make and Type)	Bronze body type	
	Conforming standard (attach certificate)	Yes	
	Ball valve (Make and Type)	To state by tenderer	
	Conforming standard (attach certificate)	Yes	
	Pressure gauge (Make and Type)	150 mm dia. Dial Face Type	
	Conforming standard (attach certificate)	Yes	
	Pressure switch (Make and Type)	To state by tenderer	
	Conforming standard (attach certificate)	Yes	
	Flexible coupling (Make and Type)	Wire and fibre moulded high pressure rubber	
	Conforming standard (attach certificate)	Yes	
	Air release valve (Make and Type)	To state by tenderer	
	Conforming standard (attach certificate)	Yes	
	Vibration isolator (Make and Type)	Neoprene pad	
	Conforming standard (attach certificate)	Yes	
8.0	Pump Switchboard		
	Make and manufacturer	To state by tenderer	
	Material/gauge of switchboard	To state by tenderer	
	Size of cubicle (mm)	To state by tenderer	
	Thickness of metal sheet (mm)	To state by tenderer	
	Catalogues and circuit diagram enclosed	Yes	
	Current consumption (A)	To state by tenderer	
	Operating Voltage(V)	To state by tenderer	
	Timer model	To state by tenderer	
	Relay model	To state by tenderer	
	Alarm bell sounding when pump is running	Yes	
	Bell silence switch provided	Yes	
	Attached pump switchboard test certification	Yes	

NO.	ITEMS	JKR REQUIREMENT	CONTRACTOR'S OFFER
9.0	Lighting Surge Arrestor (Data/power)		
	Manufacturer	To state by tenderer	
	Model	To state by tenderer	
	Test Standard (attach certificate)	Yes	
	Peak discharge current to Earth	To state by tenderer	
	Peak leak through voltage	To state by tenderer	
	Maximum working voltage	To state by tenderer	
	Maximum working current	To state by tenderer	
	Full modes protection	To state by tenderer	
	Advance voltage free contact	To state by tenderer	
	Response time	To state by tenderer	
	Visual LED status indication	To state by tenderer	
10.0	Circuit Breaker		
	Make	To state by tenderer	
	Range capability	To state by tenderer	
	Model	To state by tenderer	
11.0	Starters		
	Make	To state by tenderer	
	Range capability	To state by tenderer	
	Model	To state by tenderer	
12.0	Contactors		
	Make	To state by tenderer	
	Range capability	To state by tenderer	
	Model	To state by tenderer	
13.0	Ammeters		
	Make	To state by tenderer	
	Range capability	To state by tenderer	
	Model	To state by tenderer	
14.0	Voltmeter		
	Make	To state by tenderer	
	Range capability	To state by tenderer	
	Model	To state by tenderer	

D.6.3 POOL PUMP

NO.	ITEMS	JKR REQUIREMENT	CONTRACTOR'S OFFER
1.0	Pool Electric Pump Set (PP-01-01)		
	a. Manufacture of pump	To state by tenderer	
	b. Model no. of pump	To state by tenderer	
	c. Type of Pump	Vertical Inline Multistage	
	d. Material of casing	To state by tenderer	
	e. Material of impeller	To state by tenderer	
	f. Material of shaft	To state by tenderer	
	g. Type of seal	Mechanical	
	h. Flow rate of pump	390 liter/min	
	i. Total head of pump	66 ft	
	j. Numbers of pump	1 Nos	
	k. Maximum operating Pressure (bar)	To state by tenderer	
	l. Maximum Inlet Pressure (bar)	To state by tenderer	
2.0	Pump Switchboard (PP-01-01)		
	Make and manufacturer	To state by tenderer	
	Material/gauge of switchboard	To state by tenderer	
	Size of cubicle (mm)	To state by tenderer	
	Thickness of metal sheet (mm)	To state by tenderer	
	Catalogues and circuit diagram enclosed	Yes	
	Current consumption (A)	To state by tenderer	
	Operating Voltage(V)	To state by tenderer	
	Timer model	To state by tenderer	
	Relay model	To state by tenderer	
	Attached pump switchboard test certification	Yes	
3.0	Pool Electric Pump Set (PP-01-02)		
	a. Manufacture of pump	To state by tenderer	
	b. Model no. of pump	To state by tenderer	
	c. Type of Pump	Vertical Inline Multistage	
	d. Material of casing	To state by tenderer	
	e. Material of impeller	To state by tenderer	
	f. Material of shaft	To state by tenderer	
	g. Type of seal	Mechanical	
	h. Flow rate of pump	375 liter/min	
	i. Total head of pump	50 ft	
	j. Numbers of pump	1 Nos	
	k. Maximum operating Pressure (bar)	To state by tenderer	
	l. Maximum Inlet Pressure (bar)	To state by tenderer	

NO.	ITEMS	JKR REQUIREMENT	CONTRACTOR'S OFFER
4.0	Pump Switchboard (PP-01-02)		
	Make and manufacturer	To state by tenderer	
	Material/gauge of switchboard	To state by tenderer	
	Size of cubicle (mm)	To state by tenderer	
	Thickness of metal sheet (mm)	To state by tenderer	
	Catalogues and circuit diagram enclosed	Yes	
	Current consumption (A)	To state by tenderer	
	Operating Voltage (V)	To state by tenderer	
	Timer model	To state by tenderer	
	Relay model	To state by tenderer	
	Attached pump switchboard test certification	Yes	

Tandatangan Kontraktor:

Nama Dan Alamat:
(Dengan Cop)

Tarikh:

Tandatangan Saksi:

Nama Dan Alamat:
(Dengan Cop)

Tarikh:

BILL D - MECHANICAL WORKS

D.7 SCHEDULE OF RATES

The following rates for the various items of the work shall be used in the event of any variation, addition or deduction in the quantities installed.

The rates shall include costs of supply, installation, incidentals, accessories, overheads and profit. Such rates are subjected to the agreement of the Pengarah Kanan Cawangan Kejuruteraan Mekanikal as to their reasonableness.

General description of work and materials shall be as stated in the appropriate section of the Conditions of Contract and the Specification.

D.7.1 ELECTRIC CABLES

Size	Price Per Meter Run (RM)	
(mm2)	PVC Cable	PVC Cable In Conduit
1.5		
2.5		
4		

Size	Price Per Meter Run (RM)	
(mm2)	Twisted Pair PVC Cable	Twisted Pair PVC Cable In Conduit
2C x 1.5		
2C x 2.5		
4C x 2.5		
2C x 4.0		
4C x 4.0		

Size	Price Per Meter Run (RM)	
(mm2)	Amoured Cable	Amoured Cable In Conduit
1.5		
2.5		
4		

D.7.2 PIPES

Size	Price Per Meter Run (RM)			
dia. (mm)	Galvanised Steel Class 'C'		Black Steel Class 'C' Pipes	Schedule 40 Seamless Galvanised Steel Pipes
	Pipes	Underground Pipes(Perinsulated factory wrapping externally with Bituminous)		
25				
50				
65				
80				
100				
150				

D.7.3 FITTINGS

Size	Price Per Number (RM)		
dia. (mm)	Galvanised Steel		
	Elbows	Tees	Cross Tees
20			
25			
32			
40			
50			
65			

	Price Per Number (RM)		
Size	Schedule 40 Seamless Galvanised Steel		
dia. (mm)	Elbows	Tees	Cross Tees
20			
25			
32			
40			
50			
65			

Size dia. (mm)	Price Per Number (RM)		
	Reducing Tees		
	Galvanised Steel	Schedule 40 Seamless Galvanised Steel	Schedule 80 Seamless Galvanised Steel
50 X 25			
65 X 25			
65 X 50			

D.7.4 VALVES

Size	Price Per Number (RM)	
(mm)	Gate Valve	Check Valve
25		
40		
50		
65		
150		

Size	Price Per Number (RM)	
(mm)	Strainer	Flexible Coupling
25		
40		
50		
65		
150		

D.7.4 OTHERS

No.	Supply and Install	Size/ Type	Unit	Rate (RM)
1	Pressure Gauge	a) 100 mm dia.	per no.	
		b) 150 mm dia.	per no.	
2	Pressure Switches		per no.	
3	Stainless Steel Non-Float Electrodes c/w holder and spacer		per set	
4	Hose Reel c/w stop valve shut off nozzle and 100 ft long	a) Swing type	per set	
		b) Fixed type	per set	

No.	Supply and Install	Size/ Type	Unit	Rate (RM)
5	Hose Reel Nozzle		per no.	
6	Hose reel steel cabinet & lock set		per no.	
7	Break Glass	a) Conventional	per no.	
		b) Addressable	per no.	
8	Alarm Bell	a) 100mm dia.	per no.	
		b) 150mm dia.	per no.	
9	Sounder		per no.	
10	Automatic Air Release Valve	a) 25mm dia.	per no.	
		b) 50mm dia.	per no.	
11	Stop Valve	a) 25mm dia.	per no.	
		b) 50mm dia.	per no.	
12	Float control valve		per no.	
13	Mechanical Joint Coupling	a) 65mm dia.	per no.	
		b) 100mm dia.	per no.	
		c) 150mm dia.	per no.	
14	Interface c/w all accessories		per set	
15	Hot- Dipped Galvanised	a) 5mm thick	Per no.	
		b) 6mm thick	per no.	
17	Warning Light		per no.	
18	Switchboard panel (Plant room)		per no.	
19	Battery heavy duty maintenance free lead acid rechargeable type	10 AH	per no.	
		17 AH	per no.	
		20 AH	per no.	
		25 AH	per no.	
		per no.	
20	Battery heavy duty nickel cadmium recharger able type	10 AH	per no.	
		17 AH	per no.	
		20 AH	per no.	
		25 AH	per no.	
		per no.	
21	Battery Charger		per no.	
22	Smoke Detector	a) Conventional	per no.	
		b) Addressable	per no.	
23	Heat detector	a) Conventional	per no.	
		b) Addressable	per no.	
24	Duct smoke detector	a) Conventional	per no.	
		b) Addressable	per no.	
25	Grease		Per kg	
26	Pendent Sprinkler Head		per no.	

No.	Supply and Install	Size/ Type	Unit	Rate (RM)
27	Upright Sprinkler Head		per no.	
28	Landing Valve		per no.	
29	CO2 portable fire extinguisher	2.2kg	per no.	
30	Dry Powder portable fire extinguisher	9 kg	per no.	
31	Metal cabinet for portable fire extinguisher	a) CO2 2.2 kg	per no.	
		b) Dry powder 9kg	per no.	
		c) Wet Chemical	per no.	
32	Spring isolator (vibration)		per no.	
33	Neoprene Pad		Per m ²	
34	Fire curtain		per m ²	
35	Clean Agent		per m ³ .	
36	Clean agent control panel		per no.	
37	Pilot operated valve		per no.	
38	Manual key switch		per no.	
39	Lightning surge arrestor		per no.	
40	Overvoltage protector		per no.	

Tandatangan Kontraktor:

Nama dan Alamat:
(Dengan Cop)

Tarikh:

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN DI
BANGUNAN SULAIMAN, JALAN SULTAN
HISHAMUDDIN, KUALA LUMPUR**

SEKSYEN II

SENARAI KUANTITI

BILL NO. E - ELECTRICAL WORKS

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	INTERNAL LOW VOLTAGE SYSTEM (BLOK (All quantities are PROVISIONAL) The work in this section comprises the dismantling and upgrading work. Information : The tenderer is required to visit the site to inspect the existing wiring condition, related DB's, etc to be dismantle or replace with new wirings and components etc.				
A.	<u>DISMANTLING WORKS</u> <u>DISMANTLE EXISTING WIRING & FITTINGS</u>				
1.	Dismantling existing wiring for lighting point & fittings at Blok Utama, near pond area (Aras LG)	Nos	6		
2.	Dismantling existing wiring for ceiling fan point & fittings at Blok Utama, near pond area (Aras LG)	Nos	2		
3.	Dismantling all existing wiring for lighting point & fittings at Blok Pavillion Kawasan Parking & Stor (Aras UG)	Nos	21		
4.	Dismantling all existing wiring, Power Point (SSO), Data Point (RJ45), Service Box Underfloor Trunking System at Bilik Seminar 1, Blok Pavillion (Aras UG) Note : existing uPVC ducting to be re-used	Nos	19		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					
To Collection :					

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	INTERNAL LOW VOLTAGE SYSTEM (BLOK UTAMA & PAVILLION) (All quantities are PROVISIONAL) <u>NEW WORKS</u> To supply, install, testing and commissioning as per drawing and specifications. All quantities given are PROVISIONAL. The actual quantities installed shall be measured on site after completion and prices adjusted accordingly.				
	WIRING Notes : i) All wiring shall be installed as per drawing, relevant rules, regulation and specification. ii) Minimum cross section area of CPC in relation to the cross section area of associated phase conductor shall be install as per MS-IEC60364-5-54, Table 54.3 iii) For top floor and wiring above ceiling shall be in galvanised steel (G.S), heavy gauge, Class B, screw typed conduits and electrogalvanised sheet steel trunking. The trunking shall be supported by fixing brackets. All accessories shall be provided such as brass bush, elbow, flexible GS conduit, saddle, adaptor and etc for complete installation. iv) All prices shall include the cost of conduits, trunking and any other accessories used for the wiring system. v) All wiring shall be in concealed / surface G.S conduit / Hot Dipped Galvanised trunking. vi) All wiring for Emergency Light & Keluar Sign shall be in G.S Conduit vii) Switches for lighting and fans shall generally be grouped. viii) Switch plates of size 85mm x 85mm (max. allowable number of big rocker switches is 3) x) Back boxes for switches and switched socket outlet shall be of galvanised sheet steel type of minimum thickness 0.8mm. xi) Any other items which not mentioned in this section, shall be comply with the latest revision of CKE.LS.01.01.(04).2017.				
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
CONCEALED WIRING					
1.	Lighting point using 2 x 1.5 sq. mm PVC cable c/w CPC i) Blok Utama near pond area (Aras LG)	Nos	14		
2.	Ceiling fan point using 2 x 1.5mm ² PVC cable c/w CPC, safety wire, hook and other necessary accessories. i) Blok Utama near pond area (Aras LG)	Nos	2		
SURFACED WIRING					
3.	Lighting point using 2 x 1.5 sq. mm PVC cable c/w CPC i) Blok Pavillion Kawasan Parking & Stor (Aras UG)	Nos	21		
4.	Socket outlet point using 2 X 4 sq. mm PVC cable & CPC c/w underfloor type SSO through underfloor trunking system from existing Distribution Boards (DB's) to underfloor service box at Bilik Seminar 1 (Blok Pavilion Aras UG)	Nos	38		
5.	10A SP big rocker switch (1 way, 2 way)	LS	LS		
B LUMINAIRES AND EQUIPMENT					
INDOOR LED LUMINAIRES					
T8 LED LUMINAIRES					
1.	1 x (12 to18watt) Surface Mounted Bare Channel c/w Self Ballasted Double Capped T8 LED Tube (1200mm, CCT 4000K). i) Blok Pavillion Kawasan Parking (Aras LG)	Nos	129		
	ii) Blok Pavillion Kawasan Parking & Stor (Aras UG)	Nos	5		
2.	1 x (12 to18watt) Surface Mounted Bare Channel c/w Mesh Guard and Self Ballasted Double Capped T8 LED Tube (1200mm, CCT 4000K). i) Blok Pavillion Kawasan Parking & Stor (Aras UG)	Nos	14		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
3.	LED DOWNLIGHT LUMINAIRES The luminaires shall consist two separate components comprising of LED driver and optical system for LED Downlight. The construction of the luminaires shall be either two separate housing/compartements or integrated.				
	10-15watt LED 170mm (6 inch) dia., Recessed Downlight Luminaire c/w Frosted Diffuser, Driver and CCT 4000K (round type)				
	i) Blok Utama ruang rehat near pond area (Aras LG)	Nos	14		
	ii) Blok Utama Tandas Lelaki & Perempuan (Aras 3)	Nos	15		
4.	EMERGENCY LIGHT & KELUAR SIGN Surface mounted LED emergency luminaire c/w 3 hours duration battery back-up. (approved by Jabatan Bomba)				
	i) Blok Pavillion Kawasan Parking (Aras LG)	Nos	21		
	ii) Blok Pavillion Kawasan Parking (Aras UG)	Nos	2		
5.	Recess type LED emergency luminaire c/w 3 hours duration battery back-up. (approved by Jabatan Bomba)				
	i) Blok Utama Tandas Lelaki & Perempuan (Aras 3)	Nos	2		
6.	Recess type LED KELUAR SIGN c/w 3 hours duration battery back-up. (approved by Jabatan Bomba)				
	i) Blok Pavillion Kawasan Parking (Aras LG)	Nos	3		
7.	FAN 1500mm dia. Decorative sweep ceiling fan c/w regulator, suspension rod, safety thermal fuse and safety wire rope.				
	i) Blok Utama near pond area (Aras LG)	Nos	2		
C	UNDERFLOOR TRUNKING SYSTEM To supply, install, testing and commissioning of underfloor trunking system for distribution of power, telecommunication and networking services as per specification and drawing. As per drawing no.: HQL.269/2022/LV06				
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					
To Collection :					

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
1.	Supply and install Underfloor Service outlet box c/w pre-galvanized sheet steel/pre-galvanized zinc coated steel cover of size : 250mm x 250mm x 56mm 3 compartment service outlets for 2 nos 1 gang 13A 3 pin switched socket outlet underfloor type and 1 no. (RJ45) underfloor type angular faceplate for network point c/w Cat 6UTP Cabling.	Nos	19		
2	Supply and Install Cat 6 UTP Cabling from patch panel to network switches at Bilik ICT Aras UG (Blok Pavilion)	Nos	19		
D	OTHER				
	<u>INSPECTION TO EXISTING WIRING & DB'S</u>				
1.	To inspect and test existing wiring for all lighting points at Blok Pavillion Kawasan Parking (Aras LG) including circuits, connections, components and conduits to ensure safety and compliance to specification, standards & regulations.	LS	LS		
2.	To inspect and test existing wiring for all lighting point at Blok Utama Tandas Lelaki & Perempuan (Aras 3) including circuits, connections, components and conduits to ensure safety and compliance to specification, standards & regulations.	LS	LS		
3.	To inspect and test existing corresponding Distribution Boards (DB's) at Blok Utama and Blok Pavilion including connections, components and conduits to ensure safety and compliance to specification, standards & regulations.	LS	LS		
4.	To dismantle, re-wiring, replace, install and equiped with new wiring/new electrical component in existing DB i.e breaker (MCB/RCCB) etc. (if necessary)	LS	LS		
	<u>INSPECTION, TESTING AND COMMISSIONING</u>				
5.	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 Contract Works Electrical as required in the relevant Specifications including providing all necessary labour, materials, transportation, appliances or equipment, electricity and fuels, and paying all fees and charges for tests carried out by others.	LS	LS		

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA
LUMPUR**

To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
6.	<p><u>COMPETENT PERSON</u></p> <p>The Contractor shall 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 Contract Works and as long thereafter as the S.O.'s</p> <p>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 time to the superintendence of the Sub-Contract 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.</p> <p>The S.O.'s Representative will be at liberty to object to and requires the 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 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.</p>	LS	LS		
7.	<p><u>SHOP /WORKING DRAWINGS</u></p> <p>Provide for the preparation, submission and thereafter the approval for construction from the S.O.'s Representative all shop / working drawings for the Contract Works as required in the relevant Specifications in the Contract. The contractor will be provided with project site plan and electrical layout drawings in digital format by JKR for shop/working drawing preparation.</p> <p>Detail final sub-circuits and switching arrangement, shall be prepared, calculated and approved before installation. Final sub-circuits shall include lighting and power installation.</p>	LS	LS		
8.	<p>Upon completion of the work and before handing over, the Contractor shall submit four (4) sets contained the following documents, properly titled and bound in hard covers :-:</p> <p>i) Installation Manuals, Operation Manuals, Service and Maintenance Manuals, and Part Lists for all equipment supplied;</p> <p>ii) all original Certificate of Warranties and Guarantees issued by the original equipment manufacturers.</p>	LS	LS		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Amount (RM)
	<p>INTERNAL LOW VOLTAGE SYSTEM (BLOK UTAMA & PAVILLION)</p> <p><u>COLLECTION</u></p> <p>FROM PAGE NO. E/1/1</p> <p>FROM PAGE NO. E/1/2</p> <p>FROM PAGE NO. E/1/3</p> <p>FROM PAGE NO. E/1/4</p> <p>FROM PAGE NO. E/1/5</p> <p>FROM PAGE NO. E/1/6</p>	
<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR</p>		<p>To Summary :</p>

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>EXTERNAL LOW VOLTAGE SYSTEM</p> <p>(All quantities are PROVISIONAL)</p> <p>The work in this section comprises the dismantling and upgrading work.</p> <p>Information :</p> <p>The tenderer is required to visit the site to inspect the existing wiring condition, related DB's, etc to be dismantle or replace with new wirings and components etc.</p>				
A	<u>DISMANTLING WORKS</u>				
	<u>DISMANTLE EXISTING WIRING & FITTINGS</u>				
1.	Dismantling all existing wiring and Compound Lighting fixtures with poles	LS	LS		
2.	Dismantling existing DB for Compound Lighting at Pondok Pengawal	LS	LS		
B.	<u>NEW WORKS</u>				
	<p>Important Notes:-</p> <p>i) To supply, install, testing and commissioning the complete external lighting in accordance with details and as per specifications and drawing.</p> <p>ii) Catalogues, technical specification and data for offered equipment shall be submitted together with this tender.</p> <p>iii) Rates shall include for all operations necessary for the manufacture, testing, supply, delivery and installation of the lighting column etc as per drawings.</p>				
	COMPOUND LIGHTING				
1.	<p>To supply and install 3500mm height Flange Type Decorative Pole with finished Matt Black c/w loop-in-loop out junction box, cut-out fuses, SPD (Imax ≥ 20kA), service doors with hinged type cover, internal wiring using 2.5 sq.mm PVC/PVC c/w 2.5 sq.mm PVC CPC and other necessary accessories.</p> <p>As per drawing no.: HQL.269/2022/LV01 HQL.269/2022/LV02</p>	Nos	18		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					<p>To Collection :</p>

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
2.	To supply and install concrete footing suitable to mount 3500mm height lighting column as per approval from C&S Consultant. The contractor shall confirm the size of the concrete footing with the compound lighting column manufacturer (concrete footing for pole along the elevated structure, electrical contractor shall liaise with the main contractor).	Nos	18		
3.	To supply and install 35W LED compound lighting luminaire with IP rating IP54, CCT = 3000K c/w driver and other necessary accessories etc.	Nos	18		
4.	CONTROL BOARD To supply, install, testing and commissioning Electrogalvanised Control Board 'CL' including all cable terminations as per drawing and specification. i) Electrogalvanised Control Board, CB 'CL' at Pondok Pengawal As per drawing no.: HQL.269/2022/LV02	Lot	1		
5.	UNDERGROUND CABLES To supply, install, testing and commissioning copper cables: 2C 6mm sq. PVC/SWA/PVC Underground Cable from : i) CB 'CL' to Compound Lighting	Mtr	380		
6.	PIPE CROSSING / DUCTING To supply and install 100mm dia. GI Pipe Class 'B' for road crossing, cable crossing, hardstanding and tarmac area. As per drawing no.: HQL.269/2022/LV01 HQL.269/2022/ELV01 i) 1 no. 100mm dia. GI Pipe Class 'B'	Mtr	30		

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA
LUMPUR**

To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Amount (RM)
	<div>EXTERNAL LOW VOLTAGE SYSTEM COLLECTION</div> <div>FROM PAGE NO. E/2/1</div> <div>FROM PAGE NO. E/2/2</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR</div> <div>To Summary :</div>		

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	EXTRA LOW VOLTAGE SYSTEM ELECTRONIC ACCESS CONTROL SYSTEM (All quantities are PROVISIONAL) The work in this section comprises the dismantling and upgrading work. Information : The tenderer is required to visit the site to inspect the existing wiring condition, etc to be dismantle or replace with new wirings and components etc.				
	<u>DISMANTLING WORKS</u> <u>DISMANTLE EXISTING WIRING & FITTINGS</u>				
	1. Dismantling all existing wiring from TCU to CRC, TCU, CRC, etc for access control system upgrading work: i) from TCU 1 to CRC1 until CRC7 ii) from TCU 2 to CRC1 until CRC3 iii) from TCU 3 to CRC1 until CRC8 iv) from TCU 4 to CRC1 until CRC3 v) from TCU 5 to CRC1 until CRC8 vi) from TCU 6 to CRC1 until CRC8 vii) from TCU 7 to CRC1 until CRC8 viii) from TCU 8 to CRC1 until CRC8 ix) from TCU 9 to CRC1 until CRC8 x) from TCU 10 to CRC1 until CRC6 xi) from TCU 11 to CRC1 until CRC2	LS	LS		
	2. Dismantling existing wiring for CCTV point and fitting at : i) Blok Utama, near pond area (Aras LG) ii) Boom Gate 'IN' and 'OUT'	LS	LS		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
B.	ELECTRONIC ACCESS CONTROL SYSTEM (All quantities are PROVISIONAL)				
	<u>NEW WORKS</u> i) All quantities given are PROVISIONAL. The actual quantity installed shall be measured on site after completion and prices adjusted accordingly. ii) Manufacturer's catalogues and technical specification shall be submitted. Failure to do so may result in failure to comply to technical specifications. iii) Contractor shall deemed to have examined the site. iv) Works shall include all termination, labelling and interacking cablings within equipment rack, c/w all necessary connectors, mountings and accessories. v) All network infrastructure cabling and related accessories shall be of type as approved in the JKR JMAL website. vi) All cabling and wiring infrastructure works shall be referred to the current JKR Specification for Low Voltage Internal Electrical Installation (L-S1). CABLING i) All internal cabling shall be in G.S conduit/ electrogalvanised (EG) trunking/hot-dipped galvanised (HDG) trunking. ii) Wiring works (inclusive breaking, hacking, cutting hole, and making good, restoration, backfilling and permanent reinstatements of damage brickwall, etc. necessary for the installation of the system. iii) All fiber and UTP cablings shall be tested according to the relevant standard (price are deemed to be inclusive of these works). iv) All works carried out shall comply to the specifications and drawings.				
	1. Access controller point using 1 x CAT6 UTP cable / RS485 shielded cable c/w connector and all necessary accessories.	Nos	63		
	2. System cabling using RS 485 shielded cable (no of core to suit requirement) from access controller to card readers c/w all necessary accessories. (if necessary)	Nos	63		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
3.	System cabling using RS 485 shielded cable (no of core to suit requirement) from access controller to biometric/card readers c/w all necessary accessories. (if necessary)	Nos	2		
4.	System cabling using 1 x Jellyfilled CAT6 UTP cable partly in G.S conduit/trunking and underground ducting c/w connector and all necessary accessories. (Distance Cable approximate 40 meter)	Nos	2		
5.	Loop sensor cable using multicore 2 x 1.5 sq.mm PVC cable c/w sealant.	Nos	4		
6.	System cabling works from up, stop and down push button to boom gate controller using 4C 2.5 sq.mm PVC/SWA/PVC underground cable partly in G.S conduit/ underground ducting c/w all necessary accessories.	Lot	2		
7.	Cabling works using 2C 6 sq.mm PVC/SWA/PVC underground cable partly in surface & underground uPVC pipe from DB'EGH' at pondok pengawal to Isolation Transformer (Tx) and from Isolation Tx to Boom Gate Controller. (Distance Cable approximate 40 meter)	Nos	2		
8.	To supply and install 100mm dia. GI Pipe Class 'B' for road crossing, cable crossing, hardstanding and tarmac area.				
	i) 1 no. 100mm dia. GI Pipe Class 'B'	Mtr	6		
C	TO SUPPLY AND INSTALL All works carried out shall comply to the specifications and drawings.				
1.	Electronic access control management software.	Lot	1		
2.	Server for electronic access control system c/w antivirus software.	No.	1		
3.	Computer c/w MS Office and antivirus software.	No.	1		
4.	Desktop card reader.	No.	1		
5.	Card printer.	No.	1		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
6.	Contactless smart card.	Nos.	100		
7.	Access controller c/w power supply, battery, enclosure etc.	Nos.	65		
8.	Card reader (Entry Reader) (if necessary)	Nos.	65		
9.	Biometric/card readers (if necessary)	Nos.	2		
10.	Card reader (Exit Reader) (if necessary)	Nos.	65		
11.	Boom gate system controller c/w electro galvanised enclosure and concrete plinth.	Lot.	2		
12.	Heavy duty boom gate c/w 3 meter straight barrier gate arm.	Nos.	2		
13.	Power supply surge protective device.	Nos.	4		
14.	Data surge protective device.	Nos.	6		
15.	Signal surge protective device.	Nos.	4		
16.	Up, stop and down push button.	Nos.	2		
17.	230V/230V , 1 phase, 50Hz, 2 wire system 150VA double wound shielded isolation transformer c/w weatherproof electrogalvanised enclosure (IP54) for boom gate system.	Lot.	2		
D	CCTV CAMERA AND CABLING (All quantities are PROVISIONAL)				
1.	To supply and install Varifocal IR bullet camera c/w cabling, mounting box and other necessary accessories. i) Blok Utama, near pond area (Aras LG)	Lot.	1		
2.	To supply and install pole mounted type Varifocal Outdoor IR bullet camera c/w cabling, bracket, fixing plate, pendant, pole and other necessary accessories as specified by the manufacturer. i) Boom Gate 'IN' and 'OUT'	Lot.	1		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
E	ELV LOCAL AREA NETWORK BACKBONE (All quantities are PROVISIONAL) Supply, install, reconfigure, integration and commissioning entire existing access control system of the following in accordance to specification and drawing. Manufacturer's catalogue, technical specification and test data shall be submitted. Drawing no. : HQL.269/2022/ELV08 WIRING				
	1. Access controller point using 4 core OM3 multimode fiber optic cable run in G.S conduit/ EG trunking inclusive of splicing, jointing, termination etc. c/w all necessary accessories from Distribution Switch (ER/BK) at Bilik Keselamatan, Aras G Blok Utama to:				
	i) Access Switch (ER/ALG) at Bilik ELV Aras LG, Blok Utama	Lot	1		
	ii) Access Switch (ER/A1) at Bilik ELV Aras 1, Blok Utama	Lot	1		
	iii) Access Switch (ER/A2) at Bilik ELV Aras 2, Blok Utama	Lot	1		
	iv) Access Switch (ER/A3) at Bilik ELV Aras 3, Blok Utama	Lot	1		
	2. Access controller point using 2 nos 4 core OM3 multimode outdoor fiber optic cable run in G.S conduit/ EG trunking/ underground ducting inclusive of splicing, jointing, termination etc. c/w all necessary accessories from Distribution Switch (ER/BK) at Bilik Keselamatan, Aras G Blok Utama to:				
	i) Access Switch (ER/PV) at Bilik ICT Aras UG, Blok Pavillion	Mtr	140		
	ii) Access Switch (ER/PP) at Pondok Pengawal	Mtr	150		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
F	SUPPLY AND INSTALL (All quantities are PROVISIONAL)				
1.	To supply and install 24 port Cat 6 (EIA/TIA) rackmountable patch panel c/w cable support and cable management	Nos	7		
2.	To supply and install 12 port Fiber Optic Panel c/w duplex for multimode fibre optic cable.	Nos	1		
3.	To supply and install 6 port Fiber Optic Panel c/w duplex for multimode fibre optic cable.	Nos	6		
4.	To supply and install 2.0 meter length 1 pair OM3 factory terminated patch cord	Nos	12		
5.	To supply and install 2.0 meter length UTP Cat 6 23AWG (EIA/TIA) factory terminated patch cord c/w RJ45 connectors and boots. (patch panel to network switch)	Nos	65		
6.	Supply, install and configure fully managed Distribution Switch c/w accessories with the following minimum requirements: i) Switching capacity is minimum 144 Gbps ii) Forwarding rate is minimum 124 Mpps iii) Layer 2/3 Switching iv) Support 24 port 1/10/25/40GbE	No	1		
7.	Supply, install, and configure 12-port stackable Layer 2 switching Access Switch with the following minimum requirements: i) 12-port 1000 Base-T (Ethernet) ii) Switching capacity is minimum 27.2 Gbps iii) Forwarding rate is minimum 20.4 Mpps iv) POE switch 12 port v) 2 ports SFP+ fixed 1/10 GbE	No	3		
8.	Supply, install, and configure 24-port stackable Layer 2 switching Access Switch with the following minimum requirements: i) 24-port 1000 Base-T (Ethernet) ii) Switching capacity is minimum 56 Gbps iii) Forwarding rate is minimum 42 Mpps iv) POE switch 24 port v) 2 ports SFP+ fixed 1/10 GbE	No	2		

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA
LUMPUR**

To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
9.	1G Base-SX SFP Transceiver module with LC connector	Nos	12		
10.	Supply and install 1.0kVA rack mount UPS c/w 30 minutes full load with 50% battery discharge with SNMP enable and 15A power cable for 15A 3 pin plug top.	Nos	6		
11.	Supply and install 3.0kVA rack mount UPS c/w 30 minutes full load with 50% battery discharge with SNMP enable and 15A power cable for 15A 3 pin plug top.	No	1		
G	EQUIPMENT RACK Supply and install 19" Equipment Rack with the following requirements: i. Cable Management Units and Blank Plate (Please refer to Rack Population Drawing) ii. Perforated 1.5mm panel, frame thickness of 2mm				
1	Wall Mounted Network Rack size 9U i) Dimensions: Min. 600mm (w) x 800mm (d) ii) 3 Nos 13A 3 pin 1 gang SSO (JMAL Approved) Factory Fabricated	Lot	6		
2	Network Rack size 42U i) Dimensions: Min. 800mm (w) x 1000mm (d) ii) Power Distribution Unit (Factory Fabricated): 2 x C13 socket outlet (32A) (Left and Right)	Lot	1		
H	OTHER				
1.	Testing, commissioning and handover in approved working order of the complete Access Control system.	LS	LS		
2.	Training to client which includes system description, equipment, operation and maintenance. Training duration shall be based on the complexity of the installed system. The number of attendees shall be as advised by the client.	LS	LS		
3.	Upon completion of the work and before handing over, the Contractor shall submit : i) Installation Manuals, Operation Manuals, Service and Maintenance Manuals, and Part Lists for all equipment supplied; ii) all original Certificate of Warranties and Guarantees issued by the original equipment manufacturers.	LS	LS		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR					To Collection :

BILL NO. E - ELECTRICAL WORKS

Item	Description	Amount (RM)
	<p>EXTERNAL LOW VOLTAGE SYSTEM</p> <p><u>COLLECTION</u></p> <p>FROM PAGE NO. E/3/1</p> <p>FROM PAGE NO. E/3/2</p> <p>FROM PAGE NO. E/3/3</p> <p>FROM PAGE NO. E/3/4</p> <p>FROM PAGE NO. E/3/5</p> <p>FROM PAGE NO. E/3/6</p> <p>FROM PAGE NO. E/3/7</p>	
	<p>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR</p>	<p>To Summary :</p>

BILL NO. E - ELECTRICAL WORKS

Item	Description	From Page No.	Amount (RM)
	<u>SUMMARY</u>		
1	INTERNAL LOW VOLTAGE SYSTEM (BLOK UTAMA & PAVILLION)	E/1/7	
2	EXTERNAL LOW VOLTAGE SYSTEM	E/2/3	
3	EXTRA LOW VOLTAGE SYSTEM	E/3/8	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR		To Ringkasan Tender :	

E/SUM/1

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR

MANUFACTURER'S NAME/BRAND OF MATERIALS
A: MANDATORI ITEM

ITEM	MATERIALS	BRAND	COUNTRY OF MANUFACTURE	MODEL
1.0	LV MAIN SWITCH BOARDS			
1.1	Electrogalvanised Control Board			
1.2	Adjustable sensitivity & time delay Earth Leakage Relays } *			
1.3	MCCBs } *			
1.4	MCBs } *			
1.5	RCCBs } *			
1.6	4P Contactors			
2.0	CABLE & ACCESSORIES } *			
2.1	PVC cable			
2.2	PVC/PVC cable			
2.3	PVC/SWA/PVC cable			
2.4	GS Conduit			
2.5	Electrogalvanised Trunking			
3.0	SWITCHES, SOCKETS AND ACCESSORIES } *			
3.1	10A 2 Way Big Rocker Switch			
3.2	13A 3 pin Flush Switch Socket Outlet			
4.0	Self-contained luminaires to BOMBA Approval :			
4.1	LED Emergency Light surfaced type } *			
4.2	LED Emergency Light Recessed type } *			
4.3	LED KELUAR SIGN Luminaire wall mounted type } *			

Note : Tenderer is required to submit Catalogues for the item marked } *

Signature:

Name:

Designation :

Company's Chop:..... Date:

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR

MANUFACTURER'S NAME/BRAND OF MATERIALS
B: NON MANDATORI ITEM

ITEM	MATERIALS	BRAND	COUNTRY OF MANUFACTURE	MODEL
1.0	LV MAIN SWITCH BOARDS			
1.1	Selector Switch			
1.2	Timer switch c/w 24 hours spring reserve			
2.0	COPPER CABLE & ACCESSORIES			
2.1	Cable Termination Box			
2.2	Heat Shrinkable Dry Type Cable Termination }*			
3.0	OTHERS LIGHTING			
3.1	15 Watt LED recessed downlight (170mm dia.)			
3.2	12 - 18 Watt LED Tube Batten (1200mm)			
3.3	1 x (12-18watt) T8 LED Self Ballasted Double Capped Surface Mounted Bare Channel			
3.4	1 x (12-18watt) T8 LED Self Ballasted Double Capped Surface Mounted Bare Channel c/w Mesh Guard			
4.0	OUTDOOR LIGHTING }*			
4.1	35W LED compound lighting luminaire with IP rating IP54, CCT = 3000K c/w driver and other necessary accessories etc.			
4.2	3500mm height Flange Type Hot Dipped Galvanised Octagonal Tapered Column Compound Lighting c/w loop-in-loop out junction box, cut-out fuses, SPD (Imax ≥ 20kA), service doors with hinged type cover, internal wiring using 2.5 sq.mm PVC/PVC c/w 2.5 sq.mm PVC CPC and other necessary accessories as per specifications and drawings.			
4.3	Loop in loop out junction box			
5.0	UNDERFLOOR DUCTING SYSTEM }*			
5.1	250mm x 250mm x 56mm 3 compartment service box with pre-galvanised sheet steel/pre-galvanized zinc coated steel cover c/w 2nos 13A SSO and 1no RJ45 angular type with accessories.			
6.0	DUCTING			
6.1	100mm dia. GI Pipe Class B			

Signature:

Name:

Designation :

Company's Chop:..... Date:

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR

MANUFACTURER’S NAME / BRAND OF MATERIAL

NOTE: Failure to submit catalogues and complying to detail specifications may cause disqualification from tender.

ITEM	DESCRIPTION	TENDERER
B	ELECTRONIC ACCESS CONTROL SYSTEM & BOOM GATE SYSTEM	
1	MANAGEMENT SOFTWARE (CARD ACCESS)	
	Manufacturer's Name	
	Country of Origin	
	Model	
2	ACCESS CONTROLLER C/W POWER SUPPLY, BATTERY & ENCLOSURE	
	Manufacturer's Name	
	Country of Origin	
	Model	
3	BIOMETRIC/CARD READER	
	Manufacturer's Name	
	Country of Origin	
	Model	
4	ENTRY CARD READER	
	Manufacturer's Name	
	Country of Origin	
	Model	
5	EXIT CARD READER	
	Manufacturer's Name	
	Country of Origin	
	Model	

Tenderer’s chop and initial:

.....

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR

MANUFACTURER'S NAME / BRAND OF MATERIAL

NOTE: Failure to submit catalogues and complying to detail specifications may cause disqualification from tender.

ITEM	DESCRIPTION	TENDERER
B	ELECTRONIC ACCESS CONTROL SYSTEM & BOOM GATE SYSTEM	
6	CONTACTLESS SMART CARD READER (FOR BOOM GATE)	
	Manufacturer's Name	
	Country of Origin	
	Model	
7	BOOM GATE CONTROLLER	
	Manufacturer's Name	
	Country of Origin	
	Model	
8	HEAVY DUTY BARRIER GATE	
	Manufacturer's Name	
	Country of Origin	
	Model	
9	CONTACTLESS SMART CARD	
	Manufacturer's Name	
	Country of Origin	
	Model	
10	DESKTOP CARD READER	
	Manufacturer's Name	
	Country of Origin	
	Model	

Tenderer's chop and initial:

.....

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR

MANUFACTURER'S NAME / BRAND OF MATERIAL

NOTE: Failure to submit catalogues and complying to detail specifications may cause disqualification from tender.

ITEM	DESCRIPTION	TENDERER
B	ELECTRONIC ACCESS CONTROL SYSTEM & BOOM GATE SYSTEM	
11	ID CARD PRINTER	
	Manufacturer's Name	
	Country of Origin	
	Model	
12	PC WORKSTATION	
	Manufacturer's Name	
	Country of Origin	
	Model	
13	SURGER PROTECTIVE DEVICE (POWER)	
	Manufacturer's Name	
	Country of Origin	
	Model	
14	SURGER PROTECTIVE DEVICE (DATA & SIGNAL)	
	Manufacturer's Name	
	Country of Origin	
	Model	
15	PUSH BUTTON	
	Manufacturer's Name	
	Country of Origin	
	Model	
16	DOUBLE WOUND SHIELDED ISOLATION TRANSFORMER	
	Manufacturer's Name	
	Country of Origin	
	Model	

Tenderer's chop and initial:

.....

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN, JALAN SULTAN HISHAMUDDIN, KUALA LUMPUR

MANUFACTURER’S NAME / BRAND OF MATERIAL

NOTE: Failure to submit catalogues and complying to detail specifications may cause disqualification from tender.

ITEM	DESCRIPTION	TENDERER
C	CCTV CAMERA	
1	VARIFOCAI IR BULLET CAMERA	
	Manufacturer's Name	
	Country of Origin	
	Model	
2	VARIFOCAI OUTDOOR IR BULLET CAMERA (POLE MOUNTED TYPE)	
	Manufacturer's Name	
	Country of Origin	
	Model	

Tenderer’s chop and initial:

.....

Borang A**PERAKUAN KONTRAKTOR ELEKTRIK BAGI ORANG KOMPETEN**

Dengan ini saya
 (penama syarikat dalam CIDB), no kad pengenalan
 daripada
 (nama syarikat yang didaftarkan dalam CIDB) mengesahkan bahawa
 Orang Kompeten syarikat kami seperti dinamakan berikut yang akan
 bertanggungjawab untuk melaksanakan penyeliaan, menyiapkan dan
 membuat pengujian bagi kerja ini iaitu
(nama projek)

Maklumat penuh Orang Kompeten yang dinamakan adalah seperti yang
 disenaraikan dalam:

Borang A1 (Orang Kompeten yang akan menyelia dan menyiapkan kerja
 pemasangan) atau

Borang A2 (Orang Kompeten yang akan menguji pemasangan), dan salinan
 Perakuan Kekompetenan dilampirkan bersama-sama ini. Skop kerja Orang
 Kompeten yang baginya Orang Kompeten akan bertanggungjawab adalah
 mengikut Seksyen 23 (1) Akta Bekalan Elektrik 1990 dan Peraturan 12,
 13 dan 23 (2) Peraturan-Peraturan Elektrik 1994.

Bil.	Nama Orang Kompeten	Kekompetenan
1		
2		
3		
4		
5		
6		

Saya/kami akan melaporkan kepada pejabat tuan sekiranya terdapat perubahan
 kepada Orang Kompeten tersebut.

.....
 Nama :
 No Kad Pengenalan :
 Jawatan :
 Cop Rasmi Syarikat

Tarikh :

Borang A1

Orang Kompeten Yang Bertanggungjawab Bagi Penyeliaan Dan Penyiapan Kerja Pemasangan Elektrik Mengikut Akta Bekalan Elektrik 1990 Dan Peraturan-Peraturan Elektrik 1994:

Nama Orang Kompeten:	
No. K.P.:	
Kekompetenan:	* Jurutera Perkhidmatan Elektrik/Penjaga Jentera/Pendawai/ Pencatuman Kabel * Potong yang tidak berkenaan
Kategori Perakuan Kekompetenan:	
Sekatan, jika ada	
No. Perakuan Kekompetenan:	
Skop Kerja:	
<p>Salinan Perakuan Kekompetenan disertakan bersama-sama Borang ini.</p> <p>Saya mengakui bahawa skop kerja tersebut yang baginya saya bertanggungjawab di atas akan dijalankan mengikut Akta Bekalan Elektrik 1990 dan Peraturan-Peraturan Elektrik 1994 dan spesifikasi kontrak.</p> <p>.....</p> <p>Tarikh :</p>	

Nota : Gunakan borang ini bagi setiap Orang Kompeten yang dinamakan dalam Borang A

Borang A2

Orang Kompeten Yang Bertanggungjawab Bagi Pentauliahan Pepasangan Elektrik
Mengikut Akta Bekalan Elektrik 1990 Dan Peraturan-Peraturan Elektrik 1994:

Nama Orang Kompeten:	
No. K.P.:	
Kekompetenan:	* Jurutera Perkhidmatan Elektrik/Penjaga Jentera/Pendawai/ Pencatuman Kabel * Potong yang tidak berkenaan
Kategori Perakuan Kekompetenan:	
Sekatan, jika ada	
No. Perakuan Kekompetenan:	
Skop Kerja:	
<p>Salinan Perakuan Kekompetenan disertakan bersama-sama Borang ini.</p> <p>Saya mengakui bahawa skop kerja tersebut yang baginya saya bertanggungjawab di atas akan dijalankan mengikut Akta Bekalan Elektrik 1990 dan Peraturan-Peraturan Elektrik 1994 dan spesifikasi kontrak.</p> <p>.....</p> <p>Tarikh :</p>	

Nota: Gunakan borang ini bagi setiap seorang Orang Kompeten yang dinamakan dalam Borang A

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN KEROSAKAN
DI BANGUNAN SULAIMAN, JALAN
SULTAN HISHAMUDDIN, KUALA
LUMPUR.**

SEKSYEN II

SENARAI KUANTITI

**BILL NO. F - EXTERNAL WORKS
(ALL PROVISIONAL)**

BILL NO. F - EXTERNAL WORKS (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	ROADWORKS (ALL PROVISIONAL)				
	<u>GENERAL</u>				
	The contractors must ensure the protection of existing utilities during construction.	ITEM			
	<u>ROADS AND CARPARKS</u>				
	<u>RESURFACE EXISTING ROAD</u>				
	<u>Resurfacing of existing road all as per drawing no. JKR/CKAS/13/01/W23/001/JD/(01/01) and JKR/CKAS/P-JD/BKA/30/PEL 18/(1/21).</u>				
	<u>Scrap off existing road premix by means of mechanical scrapper with and including grubbing out existing wearing course (ACW14) layer to a total thickness of 50mm thick and tack coat to receive new premix surfacing.</u>				
B	50mm Thick	M2	1496		
	<u>One layer tack coat sprayed over road base surfaces</u>				
C	To receive Asphaltic concrete wearing course (measured seperately)	M2	1496		
	<u>Asphaltic concrete wearing course, spread, levelled and rolled (ACWC 14)</u>				
D	50mm Thick layer to falls and cambers	M2	1496		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

F/2/1

BILL NO. F - EXTERNAL WORKS (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	ROADWORKS (ALL PROVISIONAL)				
	<u>MAKING GOOD EXISTING ROADWORKS</u>				
	Allow for making good existing roadworks disturbed due to the installation of electrical cable repair works, including foundations, road pavement, kerbs, road markings, etc., upon completion of the works and to the satisfaction and approval of the S.O. all as per drawing no. JKR/CKAS/13/01/W23/001/JD/(01/01) and JKR/CKAS/P-JD/BKA/30/PEL 18/(1/21).				
	Due installation Electrical cable (approximately area affected 44m2)	ITEM			
	The excavation area for electrical cable repair and replacement work on the road must be backfilled and compacted according to the specifications. (to be part of electrical works)	NOTE			
	<u>ROAD MARKING</u>				
	<u>Prepare and apply one coat primer and two coats of white hardstanding synthetic enamel road paint on premix or paver road</u>				
B	To form 150mm edge line / channelising line (TYPE 6)	M	282		
C	To form 'Straight' or 'Turn right' pavement directional arrows	NO	1		
D	To form 'Straight' pavement directional arrows	NO	3		
E	To form zebra cross section (TYPE 9)	M2	11		
F	<u>CONNECTION TO EXISTING MAIN ROAD</u>				
	Allow connection to existing main road including all necessary excavation and cutting works and all required road signage, temporary works, making good disturbed works.	ITEM			

**KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN
SULAIMAN KL**

To Collection :

F/2/2

KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL

To Summary :

F/2/3

BILL NO. F - EXTERNAL WORKS (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p>LANDSCAPE (ALL PROVISIONAL)</p> <p><u>GENERAL NOTES</u></p> <p><u>Information :</u></p> <p>The contractor is required to visit the site to take quantity measurement again to obtain the actual sizes and dimensions to be demolished and replaced with new works.</p> <p><u>Upgrading Works</u></p> <p>The contractor must provide appropriate repair proposals and must obtain confirmation from a certified engineer/architect</p> <p><u>Registered Conservator Method Statement</u></p> <p>The contractor must adhere to the method statement provided by the Registered Conservator and comply with the latest JKR Specification</p> <p><u>LANDSCAPE</u></p> <p><u>All item in this BQ as shown in the drawing no.JKR/CA/14/10/101/W24/018/P/M/01</u></p>				
A	The timber decking shall be carefully removed and will be reinstalled after the completion of the RC slab repair work and soil treatment.	ITEM			
B	The contractor needs to conduct an inspection after the removal of the timber decking. The contractor must also propose and carry out the repair works in accordance with the Engineer's and S.O.'s approval and also the method statement provided by the Registered Conservator.	ITEM			
C	These proposals shall include final landscape finishes, such as grass and pebble wash, that match the existing finishes in accordance with the method statement provided by the registered conservators.	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					
To Collection :					

F/6/1

BILL NO. F - EXTERNAL WORKS (ALL PROVISIONAL)

Item	Description	Amount (RM)
	<div>LANDSCAPE (ALL PROVISIONAL)</div> <div><u>COLLECTION</u></div> <div>FROM PAGE NO. F/6/1</div>	
<div>KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL</div> <div>F/6/2</div>		<div>To Summary :</div>

BILL NO. F - EXTERNAL WORKS (ALL PROVISIONAL)

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
FENCING AND GATE (ALL PROVISIONAL)					
<u>GENERAL NOTES</u>					
<u>Information :</u>					
A	The contractor is required to visit the site to take quantity measurement again to obtain the actual sizes and dimensions to be demolished and replaced with new works.	NOTE			
<u>Shop Drawings</u>					
B	The contractor needs to prepare, submit, and obtain approval for construction from the S.O.'s Representative for all shop/working drawings related to the Contract Works, as required by the relevant Specifications in the Contract. Detailed final drawings must be prepared, calculated, and approved before installation.	NOTE			
<u>Upgrading Works</u>					
C	The contractor must provide appropriate repair proposals and must obtain confirmation from a certified engineer/architect.	NOTE			
<u>Registered Conservator Method Statement</u>					
D	The contractor must adhere to the method statement provided by the Registered Conservator and comply with the latest JKR Specification.	NOTE			
<u>PAINTING TO EXTERNAL FENCING</u>					
Approved prepare and apply one coat of anti-rust primer and two coat of emulsion paint or equivalent as specified, colour as S.O approval to match with existing finishes; all fixed in accordance with the method statement provided by registered conservators as shown in the drawing no. JKR/CA/14/10/101/W24/018/9/NO/01, and JKR/CA/14/10/101/W24/018/9/NO/02 JKR/CA/14/10/101/W24/018/9/NO/03.					
E	To existing fencing	M	155		
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL To Collection :					

F/7/1

BILL NO. F - EXTERNAL WORKS (ALL PROVISIONAL)

Item	Description	Amount (RM)
	FENCING AND GATE (ALL PROVISIONAL) <u>COLLECTION</u> FROM PAGE NO. F/7/1	
	KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL	To Summary :
	F/7/2	

BILL NO. F - EXTERNAL WORKS (ALL PROVISIONAL)

Item	Description	From Page No.	Amount (RM)
	<u>SUMMARY</u>		
1	ROADWORKS (ALL PROVISIONAL)	F/2/3	
2	LANDSCAPE (ALL PROVISIONAL)	F/6/2	
3	FENCING AND GATE (ALL PROVISIONAL)	F/7/2	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL		To Ringkasan Tender:	

F/SUM/1

JABATAN KERJA RAYA MALAYSIA

**KERJA PEMBAIKAN
KEROSAKAN DI BANGUNAN
SULAIMAN, JALAN SULTAN
HISHAMUDDIN, KUALA
LUMPUR.**

SEKSYEN II

SENARAI KUANTITI

BILL NO. G - PROVISIONAL SUMS

BILL NO. G - PROVISIONAL SUMS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	PROVISIONAL SUMS The following Provisional Sums provided shall be expended as directed by the Superintending Officer or deducted in whole or in part if not expended. <u>INSPECTION AND REPAIRING WORKS</u> A Conduct an inspection for repair work due to water entering the ceiling, and rectify any defects resulting from the disturbance. The contractor shall propose suitable improvement measures and carry out the repair work according to the method statement provided by the Registered Conservator and Engineer's. Allow a Provisional Sum of Ringgit Malaysia Two Hundred Thousand Only (RM200,000.00) for the following works at Siling Koridor Luar (Kitchen), Tandas OKU, Bilik Kompresor, Menara 4,5 & 6, Tandas Lelaki & Perempuan, Tepi Tangga (Lift) and Siling Luar Kafeteria (Near Pool). (Demolish and new works measured separately)	SUM			200,000.00
B	Allow for profit	%			
C	Allow for attendance	ITEM			
	<u>INTERNAL PIPING REPAIR WORKS</u> D Allow a Provisional Sum of Ringgit Malaysia Fifty Thousand Only for Internal Piping Repair Works to be expended as directed by the Superintending Officer or deducted in whole or in part not expended.	SUM			50,000.00
E	Allow for profit	%			
F	Allow for attendance	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

BILL NO. G - PROVISIONAL SUMS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
<u>ASSET REGISTRATION AND LABELLING</u>					
A	Allow a Provisional Sum of Ringgit Malaysia Eight Thousand Seven Hundred Only for Asset Registration And Labelling to be expended as directed by the Superintending Officer or deducted in whole or in part not expended.	SUM			8,700.00
B	Allow for profit	%			
C	Allow for attendance	ITEM			
<u>ANTI TERMITE TREATMENT</u>					
D	Allow a Provisional Sum of Ringgit Malaysia Twenty Thousand Only for Anti Termite Treatment to be expended as directed by the Superintending Officer or deducted in whole or in part not expended.	SUM			20,000.00
E	Allow for profit	%			
F	Allow for attendance	ITEM			
<u>BUILDERS WORKS IN CONNECTION WITH SERVICES</u>					
G	Allow a Provisional Sum of Ringgit Malaysia Two Hundred Thirty Eight Thousand Only for Builders Works In Connection With Services to be expended as directed by the Superintending Officer or deducted in whole or in part not expended.	SUM			238,000.00
H	Allow for profit	%			
J	Allow for attendance	ITEM			
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL					To Collection :

G/1/3

BILL NO. G - PROVISIONAL SUMS

Item	Description	From Page No.	Amount (RM)
1	<u>SUMMARY</u> PROVISIONAL SUMS	G/1/3	
KERJA PEMBAIKAN KEROSAKAN DI BANGUNAN SULAIMAN KL			To Ringkasan Tender :
G/SUM/1			