

JABATAN KERJA RAYA MALAYSIA

**PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA,
KEDAH**

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/IP/CKIP/2024/05**
- E. Tarikh Cipta Senarai Kuantiti: **29/10/2024**

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

JABATAN KERJA RAYA MALAYSIA

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

SENARAI KUANTITI

No. Tender: JKR/IP/CKIP/2024/05

RINGKASAN TENDER

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

ITEM	DESCRIPTION	PAGE NO.	AMOUNT(RM)
A	PRELIMINARIES AND GENERAL CONDITIONS	BILL A/14/14	
B	PILING WORKS	BILL B/7/7	
C	PELANTAR AND APPROACH BRIDGE	BILL C/SUMM	
D	MARINE WORKS	BILL D/3/3	
E	EXTERNAL WORKS	BILL E/SUMM	
F	ELECTRICAL WORKS	BILL F/8/8	
G	ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS	BILL G/1/1	
Jumlah di bawa ke Borang Tender			-

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description
A.	<u>GENERAL INFORMATION TO BILL OF QUANTITIES</u>
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> <p>(a) the provision of labour and all costs in connection therewith;</p> <p>(b) the supply of materials, goods, equipment and storage thereof including delivery to site and all costs in connection therewith;</p> <p>(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;</p> <p>(d) the usage of plants and machineries and all costs in connection therewith;</p> <p>(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;</p> <p>(f) the provision of all temporary works and all costs in connection therewith unless separately provided for in the Bill of Quantities;</p>

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description
	<p><u>GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)</u></p> <p>1.0 GENERAL (cont'd)</p> <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> <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.</p> <p>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.</p> <p>1.10 Notwithstanding the above clauses, the S.O. reserves the right to request from the Contractor the detailed breakdown of the pricing for items or rates in the B.Q. for his perusal. The detailed breakdown pricing may be used as a basis for the administration of the Contract.</p> <p>2.0 MEASUREMENT</p> <p>2.1 Quantities in the Bills of Quantities are measured in accordance with the Malaysian Standard Method of Measurement of Building Works (2nd Edition Metric 2000) and Malaysian Civil Engineering Standard Method of Measurement. Where departures 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.</p> <p>3.0 UNPRICED ITEMS</p> <p>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.</p>

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description
	<u>GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)</u>
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: <p>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;</p> <p>b. in the case of goods, materials or services supplied: for taking delivery, unloading, storing, protection and returning crates, cartons and packing materials,</p> <p>all as specified in the specification.</p>
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.
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.

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description
	<u>GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)</u>
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 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> <ul style="list-style-type: none"> a) MM : millimetre b) M : metre c) M2 : square metre d) M3 : cubic metre e) KG : kilogramme f) TONNE : metric ton g) NO : Number h) L.S. : Lump Sum i) P.C. Sum : Prime Cost Sum j) P.S. : Provisional Sum k) RM : Ringgit Malaysia l) N/A : Not Applicable m) S.O : Superintending Officer

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description
	<u>GENERAL INFORMATION TO BILL OF QUANTITIES (CONT'D)</u>
14.0	SCOPE OF WORKS
14.1	The works included under this Contract comprises: BILL A – PRELIMINARIES AND GENERAL CONDITIONS BILL B – PILING WORKS BILL C – PELANTAR AND APPROACH BRIDGE BILL D – MARINE WORKS BILL E – EXTERNAL WORKS BILL F – ELECTRICAL WORKS BILL G – ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS
15.0	LOCATION OF SITE
15.1	The site for the proposed Works is located at TASIK GUBIR, TAMAN NEGERI ULU MUDA, KEDAH as shown on drawing no. JKR/CKIP/A/K/MA02/003/LU01.

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description	Amount (RM)
	<u>PRELIMINARIES</u>	
	Project Signboard & Hoarding	
A	The Contractor shall provide, erect, paint, and maintain a project signboard and fixed hoarding as directed by the S.O, as per drawing no. JKR/CA/P-PTB1M/30/PEL16/003/01C, JKR/CA/P-PTB1M/30/PEL16/003/02C, JKR/CA/P-PTB1M/30/PEL16/003/03C and JKR/CKIP/A/K/MA02/002/HD01. The signboard shall be erected at a prominent position at the Site as approved by the S.O.	
	Site Survey and Setting Out	
B	The Contractor shall employ a licensed surveyor to carry out site surveys before commencement and setting out of the Works.	
C	For the 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.	
	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	<p>The Contractor shall submit to the S.O. for his approval the following as specified:</p> <p>a) Programme of Works b) Method statements c) Contractor's organisation chart d) Schedules 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>	

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description	Amount (RM)
	<u>PRELIMINARIES (CONT'D)</u>	
	Contractor's Plant	
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.	
	Temporary Water And Power Supplies For The Works	
B	The Contractor shall provide adequate power and water supplies for the execution of the Works including paying all associated costs and fees as specified.	
	Site Security	
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.	
	Temporary Access And Maintenance Of Existing Roads	
D	The Contractor shall provide and maintain all necessary temporary roads, culverts, tracks, bridges, et cetera for access to and within the Site as long as required to the approval of the S.O. as specified. The Contractor to inspect and analyse the suitable method to use in access the site.	
E	Temporary structure may require to access to the site and to be removed and make good as per existing after completion of the works.	
F	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.	
G	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	
H	The Contractor shall ensure the safety, health and welfare at work of all his workmen as specified.	


BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description	Amount (RM)
	<u>PRELIMINARIES (CONT'D)</u>	
	Contractor's Temporary Accommodation And Facilities For Workmen Living On Site	
A	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	
B	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	
C	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	
D	The Contractor shall submit relevant shop drawings, samples of materials or workmanship and mock-ups units, manufacturer's specification, et cetera for the S.O.'s approval as specified.	
	Progress Photographs And Progress Report	
E	The Contractor shall take progress photographs at monthly intervals or more frequently as directed by the S.O. and submit to the S.O. as specified.	
	Material Testing Laboratory And Staff	
F	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).	
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BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description	Amount (RM)
	<p><u>PRELIMINARIES (CONT'D)</u></p> <p>Office Accommodation For S.O.</p> <p>A The Contractor shall provide and maintain a site office or relocatable site office or rent a premises for the use of the JKR supervisory staff which shall meet the requirement of the JKR design as specified.</p> <p>Telephone For S.O.</p> <p>B The Contractor shall provide a permanent telephone at the S.O.'s site office for the sole use of the S.O. and his representatives as specified.</p> <p>Survey Instruments And Personnel</p> <p>C The Contractor shall provide all such instruments, equipment and survey personnel as specified until thirty (30) days after the issuance of the Certificate of Practical completion as per SO required.</p> <p>Site Items For S.O./Office Equipment And Facilities</p> <p>D The Contractor shall provide all Personal Protective Equipment required for the use of the S.O. and his supervisory staff complete as specified in APPENDIX A/1 and complying with DOSH requirements.</p> <p>E The Contractor shall provide suitable types of fire extinguishers as specified.</p> <p>F The Contractor shall provide the equipment and facilities as listed as specified in APPENDIX A/2 for the use of the S.O., his representatives and staff throughout the Contract Period.</p> <p>G The Contractor shall provide suitable transportation service by means of vehicle(s) including licensed and competent driver(s) as specified in APPENDIX A/3 throughout the duration of the original Contract Period.</p>	
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BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description	Amount (RM)
	<u>PRELIMINARIES (CONT'D)</u>	
	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: <ul style="list-style-type: none"> 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 <p>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).*</p> <p><i>* Delete if not applicable</i></p> 	
D	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.	
E	The Contractor shall submit 5 copies of Safety and Health Plan (S-Plan) as required in APPENDIX A/5 as specified.	
F	The Contractor shall submit 5 copies of monthly Safety and Health Report as required in APPENDIX A/6 as specified.	
G	The Contractor shall provide and maintain adequate traffic safety and control including signages, warning lights and flagmen as necessary.	
	Keeping the Site Tidy	
H	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.	
PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH		To Collection Page

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description	Amount (RM)								
A	<p><u>PRELIMINARIES (CONT'D)</u></p> <p>Coordination of Mechanical and Electrical (M&E) Services</p> <p>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><th>Project Cost (RM)</th><th>Minimum Requirement of M&E Coordinator</th></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>	Project Cost (RM)	Minimum Requirement of M&E Coordinator	Below 10 Million	1 CoW	Between 10 to 50 million	1 Engineer & 1 CoW	More than 50 million	1 Engineer & 2 CoW	
	Project Cost (RM)	Minimum Requirement of M&E Coordinator								
	Below 10 Million	1 CoW								
Between 10 to 50 million	1 Engineer & 1 CoW									
More than 50 million	1 Engineer & 2 CoW									
B	<p>As-built Drawings and Documentation</p> <p>Pursuant to the terms of the contract, the Contractor shall provide approved As-built drawings as follows:</p> <p>i. Four (4) sets of As-built drawings as actually constructed pertaining to the Works including all services and facilities systems and all supporting documents such as Operation and Maintenance Manual, Testing and Commissioning Certificates;</p> <p>ii. Four (4) set of Digital Copies in AutoCAD (.dwg) or any other compatible format to be stored in compact discs or removable storage; and</p> <p>iii. Four (4) set of Digital Copies in Acrobat (.pdf) or any other compatible format to be stored in compact disc or removable storage.</p> <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>									
	C		<p>The Contractor shall clear and clean the Works including existing roads, drains bounding the Site of any debris, earth, et cetera, and make good all damages upon completion as specified.</p>							

BILL A PRELIMINARIES AND GENERAL CONDITIONS

Item	Description	Amount (RM)
	<p><u>PRELIMINARIES (CONT'D)</u></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 the expenses involved in complying with the terms of these Clauses, otherwise such expenses are deemed to be included elsewhere.</p> <p><u>Clause No. 13 - Performance Bond/ Performance Guarantee Sum</u></p> <p>Performance Bond</p> <p>B 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 Damage 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> <p><u>Clause No.22 - Design</u></p> <p>G Sub-clause No. 22.2 - Design Guarantee Bond</p> <p>Design Guarantee Bond substantially in the form of Bank Guarantee for Design Guarantee Bond (PWD DGB 1/2011) appended in the Tender Document.</p>	

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BILL A PRELIMINARIES AND GENERAL CONDITIONS

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

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>BILL B - PILING WORKS</u> (ALL QUANTITIES ARE PROVISIONAL)</p> <p>MICROPILES</p> <p>Notes:</p> <p>The works in this section are carried out in Lake Water.</p> <p>The whole works to be carried out in a manner and in accordance to approved method statement.</p> <p>Piling shall commence from whatever platform levels irrespective of either at ground or formation or reduce level, prices for driving shall include for moving of pile frames about the site, raising or lowering them and redriving of heaved piles.</p> <p>This bill is to be read in conjunction with the specifications of materials and workmanship, preliminaries and general condition and preambles/ measurement amplification and pricing factors.</p> <p>The rate and prices inserted shall be deemed to have allowed for compliance with the above stipulations and other document forming part of the Contract.</p> <p>The items on mobilisation of piling plant and equipment as provided in this section covers for the whole operation and the Contractor is to price these items accordingly. Prices for testing of piles shall be deemed include the provision of all pile testing equipment on site and dismantling and moving the same on completion of the piling work. Provide, assemble and set up on site piling equipment and subsequently dismantle and remove same upon completion and allowing for all staging/ idling time and cost of operation for the whole duration of the piling works (Piling barge shall be used if necessary)</p> <p>The Contractor is to take all precautionary measures so as to ensure that the most suitable driving method is used to avoid excessive vibrations and disturbances to the existing jetty and building structure. Method statement pertaining to the pile driving work must be submitted to the S.O for approval before the work commences.</p>				
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BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>BILL B - PILING WORKS (CONT'D)</u> (ALL QUANTITIES ARE PROVISIONAL)</p> <p>MICROPILES (CONT'D)</p> <p>Notes: (Cont'd)</p> <p>The Contractor shall have visited the site and the surroundings and ascertained the exact values and extent of the works to be carried out. No claims what so ever in this respect will be entertained.</p> <p>Any pile found defective, damaged, wrongly aligned, misdriven or faulty shall be replaced by the Contractor and all cost for replacement shall be borne by the Contractor.</p> <p>Before commencement and after the completion of the piling works, the Contractor shall engage a Licensed Surveyor to set out the correct alignment and eccentricity of each pile strictly checked in accordance with the Structural Engineer's Layout Drawings or any other layout drawings deemed necessary and subsequently issued by the Engineer's during the progress of the piling works and submit the setting out drawing for S.O. approval and as-built drawing upon completion duly certified by the Licensed Surveyor.</p> <p>The Contractor shall be entirely responsible for all wastages including carting away debris from the site.</p> <p><u>Pay Length</u></p> <p>The Contractor shall take note that notwithstanding to term of Condition of Contract, the quantites of piling works in this bill are 'PROVISIONAL', and subject to re-measurement. The payment shall be based on quantity of piles driven and valued in accordance to note hereunder.</p> <p>For supply, deliver, handle, unload, transport, pitch shall be measured for the full approved delivered length.</p> <p>For driving it shall be measured from the toe of the piles when driven to the existing seabed/ riverbed/ ground level.</p> <p>The rate for every items of piling works shall include working in whatever platform levels irrespective of either at ground or formation or reduce level.</p>				
PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH				To Collection Page	-

BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
<u>BILL B - PILING WORKS (CONT'D)</u> (ALL QUANTITIES ARE PROVISIONAL) <u>MICROPILES (CONT'D)</u> <u>MOBILISATION / DEMOBILISATION</u>					
A	Provide, assemble and set up on site piling equipments including barge/jack up barge, piling frame, crane etc. all as required to complete the specified works and subsequent dismantling and remove same on completion and allowing for all staging / idling time and costs off operative for the whole duration of the piling works for the micropile inclusive of mooring about from piling points to next piles. This includes all mobilisation and demobilisation costs.	LS			
B	Allow for temporary structure / platform and temporary staging to carry out the piling work from land side including all plants and machinery, piling frame and, crane, etc. complete and remove / dismantle staging / platform upon completion of works	LS			
C	Carry out survey by Licensed Surveyor for marine piling works and submit five (5) copies as-built plans/drawings, duly endorsed by Licensed Surveyor.	LS			
D	Submit piling records as specified in triplicate, duly signed by the Contractor and the Engineer and deliver to the S.O as the work proceeds.	LS			
				To Collection Page	

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
BILL B - PILING WORKS (CONT'D) (ALL QUANTITIES ARE PROVISIONAL) <u>MICROPILES (CONT'D)</u> APPROACH JETTY 250 mm Diameter Micropiles					
A	Drilling of 250mm diameter vertical holes through whatever soil strata other than rock and removed excavated material from site	M	30		
B	Drilling of 250mm diameter vertical holes in rock and removed excavated material from site	M	30		
C	Supply and place 250mm x 9mm thick mild steel permanent casing including all necessary welding. Rate to include supply and jointing of casings, driving heads and shoes.	M	100		
D	Carry out surface preparation and apply protective coating on permanent casing from soffit of platform to ground level as specified in the marine drawing JKR.CKG.BKA.600-8/1/62/MC1	M2	50		
E	High tensile deformed bars, nominal diameter of 25mm including supporting reinforcement.	KG	1,530		
F	10mm diameter High tensile deformed bars, as spiral link.	KG	300		
G	Supply and place grout with anti-shrink cement grout Grade 35 as specified into drilled hole including excess cement required when the grout volume exceeded the theoretical volume.	M3	10		
H	Cutting off head of 250mm diameter micropiles to required length including stripping back concrete, clearing off surplus to prepare pile head.	NO	10		
<u>PILE TESTING</u> <u>PDA Test</u>					
J	Pile Dynamic Test as specified	NO	2		
				To Collection Page	

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
<u>BILL B - PILING WORKS (CONT'D)</u> (ALL QUANTITIES ARE PROVISIONAL) <u>MICROPILES (CONT'D)</u> JETTY HEAD 250 mm Diameter Micropiles					
A	Drilling of 250mm diameter vertical holes through whatever soil strata other than rock and removed excavated material from site	M	60		
B	Drilling of 250mm diameter vertical holes in rock and removed excavated material from site	M	120		
C	Supply and place 250mm x 9mm thick mild steel permanent casing including all necessary welding. Rate to include supply and jointing of casings, driving heads and shoes	M	260		
D	Carry out surface preparation and apply protective coating on permanent casing from soffit of platform to seabed level / ground level as specified in the marine drawing JKR.CKG.BKA.600-8/1/62/MC1	M2	150		
E	High tensile deformed bars, nominal diameter of 25mm including supporting reinforcement.	KG	4,447		
F	10mm diameter High tensile deformed bars, as spiral link.	KG	900		
G	Supply and place grout with anti-shrink cement grout Grade 35 as specified into drilled hole including excess cement required when the grout volume exceeded the theoretical volume	M3	20		
H	Cutting off head of 250mm diameter micropiles to the required length including stripping back concrete, clearing off surplus to prepare pile head.	NO	20		
<u>PILE TESTING</u> <u>Statnamic Pile Test</u>					
J	Statnamic pile test up to 2 times working load (2 x 500 KN = 1000 KN)	NO	2		
<u>PDA Test</u>					
K	Pile Dynamic Test as specified	NO	2		
				To Collection Page	

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
BILL B - PILING WORKS (CONT'D) (ALL QUANTITIES ARE PROVISIONAL) <u>GUIDE PILE</u> 300 mm Diameter Micro piles					
A	Drilling of 300mm diameter vertical holes through whatever soil strata other than rock and removed excavated material from site	M	12		
B	Drilling of 300mm diameter vertical holes in rock and removed excavated material from site	M	24		
C	Supply and place 300mm x 9mm thick mild steel permanent casing including all necessary welding. Rate to include supply and jointing of casings, driving heads and shoes	M	96		
D	Carry out surface preparation and apply protective coating on permanent casing from soffit of platform to ground level as specified in the marine drawing JKR.CKG.BKA.600-8/1/62/MC2	M2	60		
E	Supply and install 141.3mm diameter x 8.56mm thick API Grade N80 pipe as reinforcement	M	96		
F	Supply and place grout with anti-shrink cement grout Grade 35 as specified into drilled hole including excess cement required when the grout volume exceeded the theoretical volume	M3	10		
G	Cutting off head of 300mm diameter micropiles to the required length including stripping back concrete, clearing off surplus to prepare pile head and install polyethylene end cap as shown in the drawing JKR.CKG.BKA.600-8/1/62/MC2.	NO	4		
<u>PILE TESTING</u> <u>PDA Test</u> Pile Dynamic Test as specified					
H		NO	1		
				To Collection Page	

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL B PILING WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>BILL B - PILING WORKS (CONT'D)</u>				
	COLLECTION				
	From Page No. BILL B/1/7				
	From Page No. BILL B/2/7				
	From Page No. BILL B/3/7				
	From Page No. BILL B/4/7				
	From Page No. BILL B/5/7				
	From Page No. BILL B/6/7				
PEMBINAAN, JETIDAN BELANTAR BAHARI DI TAMAN NEGERI ULU MUDA, KEDAH				To "Ringkasan Tender"	

BILL C PELANTAR AND APPROACH BRIDGE

ELEMENT	DESCRIPTION	PAGE NO.	AMOUNT(RM)
	<u>SUMMARY</u>		
C1	WORK BELOW LOWEST FLOOR FINISH	C1/4/4	
C2	FRAME	C2/1/1	
C3	ROOF AND ROOF FINISHES	C3/4/4	
C4	STAIRCASE AND STAIRCASE FINISHES	C4/4/4	
C5	EXTERNAL FINISHES	C5/4/4	
C6	SUNDRIES	C6/4/4	
PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH			To "Ringkasan Tender"

C1 WORK BELOW LOWEST FLOOR FINISH LEVEL

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>BILL C - PELANTAR AND APPROACH BRIDGE</u></p> <p><u>BILL C1 : WORK BELOW LOWEST FLOOR FINISH LEVEL</u></p> <p>GENERAL NOTES</p> <p>The description stated in the Bills of Quantities are not comprehensive and reference shall be made to:</p> <ol style="list-style-type: none"> 1) Specification of Materials and Workmanship 2) General Conditions and Preliminaries; 3) Measurement Amplification and Pricing Factor; and 4) Standard Method of Measurement 2 <p>The rates and prices inserted shall be deemed to have allowed for compliance with the above stipulation and other documents forming part of the Contract.</p> <p>The whole works to be carried out in a manner and in accordance to approved method statement.</p> <p>The Contractor shall be entirely responsible for all wastages including carting away debris from the site</p> <p>The Contractor shall provide, maintain, alter, adapt, as required and move as necessary all temporary works on-site and shall clear away (unless otherwise stated) when no longer required and make good thereafter.</p>				
				To Collection Page	-

PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

C1 WORK BELOW LOWEST FLOOR FINISH LEVEL

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
<u>BILL C1 : WORK BELOW LOWEST FLOOR FINISH LEVEL (CONT'D)</u>					
In-Situ Concrete					
<u>Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified</u>					
A	In column stumps (Provisional)	M3	3		
B	In suspended beams	M3	15		
C	In suspended slab	M3	28		
D	Install 50mm width bituminous joint sealant inclusive with SWG 20 cooper strip, anchorage system and epoxy mortar in expansion joint between approach bridge and pelantar.	M	4		
Reinforcement					
<u>Reinforcement bars: hot rolled deformed high tensile steel according to MS146 as specified</u>					
<i>In column stumps (Provisional)</i>					
E	20mm Diameter; straight and bent	KG	407		
F	10mm Diameter; Links, stirrups, binders and the like	KG	291		
<i>In suspended beams</i>					
G	20mm Diameter; straight and bent	KG	1,478		
H	10mm Diameter; Links, stirrups, binders and the like	KG	400		
<i>In suspended slab</i>					
J	16mm Diameter; straight and bent	KG	5,010		
				To Collection Page	

C1 WORK BELOW LOWEST FLOOR FINISH LEVEL

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C1 WORK BELOW LOWEST FLOOR FINISH LEVEL

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>BILL C1 : WORK BELOW LOWEST FLOOR FINISH LEVEL (CONT'D)</u></p> <p>COLLECTION</p> <p>From Page No. C1/1/4</p> <p>From Page No. C1/2/4</p> <p>From Page No. C1/3/4</p>				
				To Summary Page	

C2 FRAME

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>BILL C - PELANTAR AND APPROACH BRIDGE</u>				
	<u>C2 : FRAME</u>				
	In-Situ Concrete				
	<u>Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified</u>				
	A In column	M3	6		
	B In roof beam	M3	12		
	Reinforcement				
	<u>Reinforcement bars; hot rolled deformed high tensile steel according to MS146 as specified</u>				
	<i>In column</i>				
	C 16mm Diameter; straight and bent	KG	383		
	D 10mm Diameter; Links, stirrups, binders and the like	KG	168		
	<i>In roof beam</i>				
	E 20mm Diameter; straight and bent	KG	1,098		
	F 16mm Diameter; tie bar	KG	323		
	G 10mm Diameter; Links, stirrups, binders and the like	KG	265		
	Formwork				
	<u>Class F1 formwork as specified in drawings and specifications;</u>				
	H To sides of column	M2	72		
	J To sides and soffits of roof beams	M2	112		
				To Summary Page	

C3 ROOF AND ROOF FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>BILL C - PELANTAR AND APPROACH BRIDGE</u></p> <p><u>C3 : ROOF AND ROOF FINISHES</u></p> <p>ROOF TRUSSES</p> <p>Cold Formed Steel Roof Trusses</p> <p>The Contractor shall design, fabricate and deliver to site and furnish at his expense all necessary materials, tools hoist, staging, temporary bracing etc. for the safe and proper erection of the Prefabricate Cold Formed Steel Roof Trusses (herein after called PRT) with corrosivity category C4 (high corrosivity); complete with rafters, top and bottom chords, bracings and tie-downs, struts, bearers, trusses connectors, straps, wall plates, connections, other associated ancillary fixing products and methods obvious items required for the works to ensure that all items act together as an integral structure that is structurally stable under all the specified combinations of loading conditions, all to the approval of the S.O.</p> <p>The design of the PRT shall be by an approved System Provider (S.P) by JKR and fabricated by a fabricator as defined and in accordance with JKR 20601-0270-22: Specification for Prefabricated Cold Formed Steel Roof Trusses and Architect's drawings. The list of the approved S.P is specified in the Appendix of the specification.</p> <p>The Contractor shall note that PRT roof trusses shall be design to suit the ceiling, the location of water tank, roof covering, mechanical and electrical (M&E) facilities and whatever load deemed necessary for the functional purpose of the building. The water tank shall not supported by the ceiling, the Contractor shall include in his design of the PRT roof trusses for any additional bearers, tie-beams, ceiling joints, ext. required to facilities the ceilings panel. The Contractor shall also in his design, facilities the fixing of timber rafters and its components used as an architectural feature along the eaves of the PRT roof trusses.</p>				
PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH				To Collection Page	-

C3 ROOF AND ROOF FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>C3 : ROOF AND ROOF FINISHES (CONT'D)</u></p> <p>Cold Formed Steel Roof Trusses (cont'd)</p> <p>The Contractor shall ensure that all trusses member located on the ducting bracket shall be protected with rubber pad to reduce the vibration caused by ducting. Rod to support ducting shall be installed on web plane member (stronger axist to decrease twisting on trusses member). Drilling is strictly probilired on all trusses member. M&E services shall be installed using strap.</p> <p>The Contractor shall note that he shall be solely responsible for the adequacy and the sufficiency of the PRT roof trusses suitable, safe, compatible and integrates with the design and specifications of the works and it shall be undertaken, approved and endorsed by a competent and registered professional.</p> <p>Rates to include:</p> <p>Rates for the PRT and rafters shall include for all necessary materials, fabricating, delivery to site, hoisting and fixing in position, all fixing accessories including holding down bolt or ram setting, all ancillary item and temporary works for the complete installation of the PRT.</p> <p>Rates for the PRT shall also include for design fees, testing for compliance, quality assurance and control and all other necessary cost for patent right design, trademark or name.</p> <p><u>Cold formed steel roof trusses with battens at a maximum spacing of 295mm c/c and a minimum headlap distance of 125mm, all necessary supports, purlins, associated members as specified; including design, supply, fabrication, erection, fixing and hoisting in position, welding, screws, bolts and nuts; complying with JKR standard specifications according to coastal development guidelines, all as per manufacturer's details and subject to S.O.'s approval.</u></p>				
A	25 Degrees Pitch roof overall area approximately 205m2	LS			

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C3 ROOF AND ROOF FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
C3 : ROOF AND ROOF FINISHES (CONT'D)					
ROOF FINISHES					
Roof Covering					
<u>Approved perspective mineral roof covering system or equivalent; fixing and lapping including compactroll plus (295mm x 10mm), ridge tree for ridge and hip tiles, radenshield AL+ FX aluminum foil thermal insulation, easy flash plus (280mm x 5mm) for flashing equipped with wakastrap, verge seal for verge tiles, BMI cut tile clips for valleys, v-pipe set for ventilation pipe outlets or approved equivalent, complete with all specified approved accessories, all in accordance to the manufacturer's instructions and subjected to the Architect's approval.</u>					
A	Covering sloping, pitch 25 degrees	M2	205		
Fascia Board					
<u>Approved high performance powder coated aluminium panel as described; subject to Architect's approval</u>					
B	250mm x 25mm x 1mm thick fascia board including necessary frames and fixing accessories	M	64		
Decorative Panel					
<u>Approved fibre cement board panel as described; colour and pattern subject to Architect's approval</u>					
C	125mm x 25mm thick gable end wall including frames and necessary fixing accessories (signages measured separately in BILL C6 - SUNDRIES).	M2	7		
<u>Prepare and apply one coat sealer and two coats of weathershield paint on fibre cement board panel, colour subject to Architect's approval specified</u>					
D	To surface of gable end wall	M2	7		
				To Collection Page	

C3 ROOF AND ROOF FINISHES

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C4 STAIRCASE AND STAIRCASE FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
<u>BILL C - PELANTAR AND APPROACH BRIDGE</u>					
<u>C4 : STAIRCASE AND STAIRCASE FINISHES</u>					
STAIRCASE					
In-Situ Concrete					
<u>Vibrated Reinforced Concrete Grade C32/40, with minimum cement content 360kg/m3 and maximum water cement ratio 0.40 as specified</u>					
A	In staircase	M3	2		
B	In landing slabs exceeding 150mm but not exceeding 300mm thick	M3	2		
C	In landing beams	M3	1		
Reinforcement					
<u>Reinforcement bars; hot rolled deformed high tensile steel according to MS146 as specified</u>					
<i>In staircase</i>					
D	16mm Diameter; straight and bent	KG	275		
<i>In landing slab</i>					
E	16mm Diameter; straight and bent	KG	260		
<i>In landing beams</i>					
F	20mm Diameter; straight and bent	KG	96		
G	10mm Diameter; Links, stirrups, binders and the like	KG	19		
Formwork					
<u>Class F1 formwork as specified in drawings and specifications;</u>					
H	To slopping soffits of staircase	M2	6		
J	To soffits of landing slabs	M2	5		
K	To sides and soffit of landing beams	M2	3		
				To Collection Page	

C4 STAIRCASE AND STAIRCASE FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	C4 : STAIRCASE AND STAIRCASE FINISHES (CONT'D) STAIRCASE (CONT'D) Formwork (cont'd) <u>Class F1 formwork as specified in drawings and specifications (cont'd):</u> A To sides of raking open string exceeding 250mm but not exceeding 500mm high B To sides of riser not exceeding 175mm high STAIRCASE FINISHES In-Situ Finishing <u>20mm thick cement and sand (1:3) paving, trowelled smooth as specified:</u> C To 350mm high sides of raking open string and riser <u>20mm thick cement and sand (1:3) paving with broom finish including two (2) layers of L&M lion hard floor hardener (1 liter/ 15m2) finish or equivalent as specified to:</u> D To landing slab and tread; 175mm wide Bed and Backing <u>20mm thick cement and sand (1:3) screeded bed as specified:</u> E To receive nosing tiles				

C4 STAIRCASE AND STAIRCASE FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	C4 : STAIRCASE AND STAIRCASE FINISHES (CONT'D) STAIRCASE FINISHES (CONT'D) Tiles <u>Approved 150mm x 75mm x 6mm thick homogenous tiles; bedded and jointed in cement and sand (1:3) mortar; pointing with coloured cement grout ; colour and pattern to Architect's approval</u> To nosing tiles	M	16		
	Painting and Decorating <u>Prepare and apply one coat of "Nippon Acrylic 5170 Wall Sealer" vinyl acrylate solvent-based sealer and two finishing coats of "Nippon Acrylic Finish" high performance acrylic resin based with excellent alkaline and weathering resistance paint or approved equivalent; all in accordance to manufacturer's specification, colour and pattern subject to Architect's approval</u>				
	B To 350mm high sides of raking open string and riser Railing <u>Profile Screen Railing comprising of SP.ace Series PS MAPLE 1803 powdered coated Profile Screen with SP.ace PS Runner or approved equivalent; 75mm x 75mm powdered coated MS Hollow as handrail and post; welded to 175mm x 175mm x 3mm thick steel plate complete with 13mm diameter fishtail bolts and nuts at every post fastened to suspended slab, including all necessary welding works, fixing and jointing to complete the works; subject to manufacturer's details and to the Architect's approval; all as per Architect's drawing no. JKR/CKIP/A/K/MA02/003/LU02 JKR/CKIP/A/K/MA02/003/ST01~02</u>	M2	7		
C	Overall height 1000mm	M	7		
				To Collection Page	

C4 STAIRCASE AND STAIRCASE FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>C4 : STAIRCASE AND STAIRCASE FINISHES (CONT'D)</u></p> <p>COLLECTION</p> <p>From Page No. C4/1/4</p> <p>From Page No. C4/2/4</p> <p>From Page No. C4/3/4</p>				
				To Summary Page	

C5 EXTERNAL FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
<u>BILL C - PELANTAR AND APPROACH BRIDGE</u>					
<u>C5 : EXTERNAL FINISHES</u>					
FLOOR FINISHES					
In-Situ Finishing					
<u>20mm thick cement and sand (1:3) paving with broom finish including two (2) layers of L&M lion hard floor hardener (1 liter/ 15m2) finish or equivalent as specified to:</u>					
A	To suspended slab; level, falls and crossfalls	M2	25		
<u>20mm thick cement and sand (1:3) paving, trowelled smooth as specified:</u>					
B	To sides of suspended slab not exceeding 200mm high	M2	16		
Bed and Backing					
<u>20mm thick cement and sand (1:3) screeded bed as specified</u>					
C	To suspended slab; to receive tiles	M2	153		
Tiles					
<u>Approved Travis Full Body Porcelain non slip tiles or equivalent; 300mm x 600mm x 7.5mm thick as specified; bedded and jointed in cement and sand (1:3) mortar; pointing with coloured cement grout ; colour and pattern to Architect's approval</u>					
D	To suspended slab	M2	153		
				To Collection Page	

C5 EXTERNAL FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	<u>C5 : EXTERNAL FINISHES (CONT'D)</u> COLUMN FINISHES In-Situ Finishing <u>18mm thick cement and sand (1:3) plainface plaster mixed with an approved plasticiser, trowelled smooth as specified;</u> To isolated columns	M2	72		
	Painting and Decorating <u>Prepare and apply one coat of "Nippon Acrylic 5170 Wall Sealer" vinyl acrylate solvent-based sealer and two finishing coats of "Nippon Acrylic Finish" high performance acrylic resin based with excellent alkaline and weathering resistance paint or approved equivalent; all in accordance to manufacturer's specification, colour and pattern subject to Architect's approval</u> To sides of slab and isolated columns	M2	88		
				To Collection Page	

C5 EXTERNAL FINISHES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
<u>C5 : EXTERNAL FINISHES (CONT'D)</u>					
CEILING FINISHES					
Suspended Ceiling					
<u>Approved 9.5mm thick Knauf Sheetrock Wetstop Plasterboard or equivalent complete with Rondo Keylock System, boards surface to be flushed finish by using 50mm Knauf Perforated Paper Tape and three (3) coats of Knauf Sheetrock jointing compound system or equivalent, including all necessary fixing, jointing, bracing, framing, drilling, hanging, brackets, screws, clips and other required fixings accessories; all in accordance to manufacturer's instruction, JKR standard specifications and subject to Architect's approval</u>					
A	To ceiling	M2	153		
B	Extra over 600mm x 600mm x 9.5mm thick access panel	NO	1		
In-Situ Finishing					
<u>5mm thick skimcoat plaster in two coats, applied in accordance to manufacturer's instruction and to the satisfaction of the S.O.</u>					
C	To ceiling board jointing and exposed beams	M2	216		
Painting and Decorating					
<u>Prepare and apply one coat of "Nippon 5300 Basecoat Sealer" acrylic copolymer water-based basecoat and two finishing coats of "Nippon ECO 5000 Emulsion" low VOV vinyl acrylic copolymer emulsion or approved equivalent; all in accordance to manufacturer's specification, colour and pattern subject to Architect's approval</u>					
D	To ceiling boards	M2	153		
E	To exposed beams	M2	216		
				To Collection Page	

C5 EXTERNAL FINISHES

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C6 SUNDRIES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>BILL C - PELANTAR AND APPROACH BRIDGE</u>				
	<u>C6 : SUNDRIES</u>				
	FACING BRICKWALL				
	Brickwork				
	<u>Well burn clay bricks smooth face built entirely of facing bricks with flemish bond in gauged mortar (1:1:6) and suitable pointing; including "exmet" brick reinforcement in every fourth course including mild steel bonding tie hook at both ends fixed as per manufacturer's specification; colour subject to Architect's approval</u>				
A	230mm thick facing brickwall	M2	10		
	RAILING				
	<u>Profile Screen Railing comprising of SP.ace Series PS MAPLE 1803 powdered coated Profile Screen with SP.ace PS Runner or approved equivalent; 75mm x 75mm powdered coated MS Hollow as handrail and post; welded to 175mm x 175mm x 3mm thick steel plate complete with 13mm diameter fishtail bolts and nuts at every post fastened to suspended slab, including all necessary welding works, fixing and jointing to complete the works; subject to manufacturer's details and to the Architect's approval; all as per Architect's drawing no. JKR/CKIP/A/K/MA02/003/LU02</u> <u>JKR/CKIP/A/K/MA02/003/ST01~02</u>				
B	Overall height 1000mm	M	66		

To Collection Page

C6 SUNDRIES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	<u>C6 : SUNDRIES (CONT'D)</u>				
	LOUVRES				
	<u>SP.ace Series (79520) (a) Aluminium Box Louvers or equivalent, comprising of panel 95mm x 20mm x 1.30mm thick TCT, Powder Coated to standard PEF Standard Colour, the panel fixed onto SP Holder S7 (30mm X 80mm X 1.3mm thk.) at spacing maximum 1200mm centre to centre; the panel spacing 100mm and including all necessary fixing lugs, brackets, strap, supports, bolts, screws, etc. subject to manufacturer's details and to the Architect's approval; all as per Architect's drawing no.: JKR/CKIP/A/K/MA02/003/LU02 JKR/CKIP/A/K/MA02/003/LV01</u>				
	Overall size 500mm high	M	50		
	BENCHES				
	<u>Construct and complete concrete benches with 100mm thick reinforced concrete bench top; finished with 18mm thick cement and sand (1:3) paving, trowelled smooth complete with 550mm x 450mm x 230mm thick well burn clay bricks in flemish bond as bench legs; bedded and jointed in cement mortar (1:3); including all necessary timber framing, subject to Architect's approval and as per drawing no.: JKR/CKIP/A/K/MA02/003/LU02 JKR/CKIP/A/K/MA02/003/BK01 CKIP(BM-2024)12/K/J/CB/01</u>				
B	Overall size 5050mm x 550mm high	NO	2		
C	Overall size 3000mm x 550mm high	NO	2		
D	Overall size 4300mm x 550mm high	NO	1		
E	Overall size 5000mm x 550mm high	NO	2		
				To Collection Page	

C6 SUNDRIES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	C6 : SUNDRIES (CONT'D)				
	SIGNAGES				
	<u>Supply and install into position Signages, with 3mm thick aluminium faced material (black anodised) wording block signages and mounted on plastic stand-off fixings and all other necessary related works to complete the work; subject to manufacturer's details and to the Architect's approval; all as per Architect's drawing no.: JKR/CKIP/A/K/MA02/003/LU02 JKR/CKIP/A/K/MA02/003/TS01</u>				
A	To facing brickwall	LS			
B	To gable end wall	LS			
				To Collection Page	

C6 SUNDRIES

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	C6 : SUNDRIES (CONT'D)				
	COLLECTION				
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	From Page No. C6/2/4				
	From Page No. C6/3/4				
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BILL D MARINE WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	BILL D - MARINE WORKS (ALL QUANTITIES ARE PROVISIONAL) General Notes: The whole work to be carried out in a manner and in accordance to approved method statement, testing and other related for high density polyethylene (HDPE) pontoon system. The contractor shall have visited the site and the surroundings and ascertained the exact values and extent of the works to carried out. No claim what so ever in this will be entertained. The cost are include temporary structure/ platform/ staging, diving and other to install HDPE pontoon system. HDPE PONTOON WITH TIMBER DECKING Supply and install complete set of HDPE Pontoon complete with rubber fender, dock cleats frame structure, floater, timber decking and all other fittings required for the complete installation with specification: 1) Aluminium frame from marine gred 6061/6063 T6 with welded subframe and mainframe with marine grade 6061/6063 T6 with suitable site condition and approved by S.O. 2) Main frame shall have 4 numbers of slot for easy installation of cleat. 3) All frame should be welded to all connection. 4) All frame shall come with aluminium Y joist for easy maintenance in future when replacing the decking. 5) All Y joist should be from marine grade 6061/6063 T5/T6 with suitable spacing on site and should be welded with sub frame and all decking screw should be slot type without to drill hole to joist. 6) The frame shall come with a slot rail for floater installation and maintenance. 7) Floater shall be made from rotomoulding process.	LS			
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BILL D MARINE WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	BILL D - MARINE WORKS (CONT'D) (ALL QUANTITIES ARE PROVISIONAL) HDPE PONTOON WITH TIMBER DECKING (CONT'D) 8) Floater should be filled with EPS foam to maintain buoyancy capacity and avoid float from filled with water. 9) All decking shall have at least minimal artificial wood grain to avoid slippery when in use in public. 10) The pontoon shall be manufactured to cater the gangway loading. 11) Contractor to provide shop drawing for S.O approval. GUIDE PILE BRACKET A Design, supply, fabricate, transport and install new bracket with complete set of rubber cushion guide roller with support structure to HDPE pontoon and include all accessories such as stainless steel bolt and nut, pin etc. The work shall include welding and bolting. TRUSSES SYSTEM FOR GUIDE PILE BRACING B Design, supply and fabricate steel bracing trusses minimum span 4000 ~ 6300mm length including cutting, drilling, assembling, welding, fixing by bolting and all necessary accessories for the complete installation inclusive suitable protective coating; subject to manufacturer's details and to the Engineer's approval; all as per Engineer's drawing no. CKIP(BM-2024)12/K/J/LP/01 CKIP(BM-2024)12/K/J/P/01 GANGWAY C Design, supply, fabricate, delivery and install Marine Grade Aluminium gangway including connection to suit with site condition overall size 29000mm (L) x 2000mm (W) with specification of : 1) Gangway shall come with two flap transition 2) Hinge to connect from base shore and roller at the end to platform with roller base				
		NO	4		
		LS			
		NO	1		
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E1 SITE PREPARATION AND TEMPORARY WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>BILL E - EXTERNAL WORKS</u></p> <p><u>E1 : SITE PREPARATION AND TEMPORARY WORKS</u></p> <p>Notes:</p> <p>The Contractor shall ascertain for himself before tendering and provide at his own cost the means of access and conditions to the site and conditions for moving to, within and around the Site. No claim for lack of information will later be considered.</p> <p>The Contractor to inspect and analyse the suitable method and proposed the access to the site to carried out work at site <u>manually or machinery</u> depends on site conditions and requirement and subject to S.O.'s approval.</p> <p>The Contractor shall take note of the constraints and requirements relating to the existing common access and other roads which adjacent and neighbouring to the Sites may be used by himself and other public.</p> <p>The Contractor shall allow herein for any inconvenience, prevention or damages suffered or caused by the above circumstances and for whatever costs arising in connection therewith.</p> <p>The Contractor shall allow for any other temporary works not specifically indicated in drawings and keep them in proper working order, maintain same means approved by the S.O. for completion of the whole works.</p>				
PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH					To Collection Page -

E1 SITE PREPARATION AND TEMPORARY WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>E1 : SITE PREPARATION AND TEMPORARY WORKS (CONT'D)</u>				
	RELOCATION OF EXISTING PONTOON				
A	Carefully dismantle existing pontoon and relocate to the designated area; and to be reinstalled including all other fittings required for the complete installation works according to S.O.'s instruction and satisfaction.	LS			
	PORTABLE HIGH PRESSURE WATER JET PUMP				
B	Supply 2 nos portable high pressure water jet pump complete with all necessary accessories and maintain it through the contract period; all as per S.O's approval.	NO	2		
	TEMPORARY INTERLOCKING PAVER				
C	Construct, maintain and demolish upon instruction from the S.O.; 80mm thick heavy duty Temporary Interlocking Pavers at the entrance to the site before construction as specified and as approve by the S.O.	LS			
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PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

E1 SITE PREPARATION AND TEMPORARY WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<p><u>E1 : SITE PREPARATION AND TEMPORARY WORKS (CONT'D)</u></p> <p>COLLECTION</p> <p>From Page No. E1/1/3</p> <p>From Page No. E1/2/3</p>				
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E2 REVETMENT

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	BILL D - REVETMENT (ALL QUANTITIES ARE PROVISIONAL) SITE CLEARANCE Clear the whole site to the extent shown on the drawings as specified of all vegetation, any structures or other obstructions which may interfere with the execution of the works and removal of all debris to the contractor's own dump site outside the area. To make up level into a proper embankment in order to receive revetment stones, levelled and well rolled. ROCK REVETMENT	LS			
	B Supply, lay and install a layer of non woven polyster Geotextile and all laid in accordance with slopes and profiles as shown in site all laid in accordance with slopes and profiles.	M2	180		
	C Supply and lay the Secondary Armour Layer comprising of 500mm thick granite stone each weighing 15kg-20kg as specified, all laid in accordance with slopes and profiles as shown on site all laid in accordance with slopes and profiles as shown on site to the satisfaction of the S.O.	M3	27		
	D Supply and lay the Primary Armour Layer comprising of 700mm thick granite stone each weighing 60kg - 90kg (330-380 dia) as specified, all laid in accordance with slopes and profiles as shown on site all laid in accordance with slopes and profiles as shown on site to the satisfaction of the S.O.	M3	63		
	E EXTRA OVER 75mm Diameter underground pipe sleeve to allow cabelling for electrical works. Refer drawing JKRCKIP.ELEK/K/23/KS06/002.	LS			
				To Summary Page	

BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>BILL F - ELECTRICAL WORK</u> LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) FINAL CIRCUIT WIRING General Notes: 1. All wiring shall be installed as per drawing and specifications. 2. The Conduits shall be of galvanised steel and conduit fittings shall be of galvanised steel or alloy materials. 3. Cable trunking shall be fabricated from hot dipped galvanized steel and all trunking elbows, offset and combination elbows, adaptors and tees shall be of same thickness as the straight trunking and shall be the type manufactured and supplied by the same trunking manufacturer. 4. The installation shall be in conduit/trunking throughout. No open wiring in roof spaces or elsewhere is permitted. 5. The wiring throughout shall be on the 'looping-in system' and no 'tee' or other types of joints are allowed. <u>Supply, install, test and commission of the following and comply with specification L-S1 (Revision : 4 Date : Jan 2018) :</u>				
A	Lighting point using 2 x 1.5 sq. mm PVC cable and circuit protective conductor in surface conduit c/w 10A 1 way metalclad switch.	NO	16		
B	Emergency light point using 2 x 1.5 sq. mm PVC cable and circuit protective conductor in surface conduit.	NO	2		
C	Floodlight point using 2 x 2.5 sq. mm PVC cable and circuit protective conductor in surface conduit c/w 10A 1 way metalclad switch.	NO	4		
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PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
BILL F - ELECTRICAL WORK (CONT'D) LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) FINAL CIRCUIT WIRING (CONT'D) <u>Supply, install, test and commission of the following and comply with specification L-S1 (Revision : 4 Date : Jan 2018) : (cont'd)</u>					
A	Ceiling fan point using 2 x 1.5 sq. mm PVC cable and circuit protective conductor in surface conduit c/w 10A 1 way metalclad switch and ceiling hook.	NO	6		
B	Switched socket outlet point 2 x 2.5 sq. mm PVC cable and circuit protective conductor in surface conduit c/w 13A 1 gang metalclad surface mounted switched socket outlet.	NO	7		
C	To fabricate electrogalvanized sheet steel boxes for mounting switch plates and fan regulators. Each switch group shall be of different phases and separated according to the supply source. <u>To supply, deliver and install cable trunking system c/w accessories and comply with specification L-S1 (Revision : 4 Date : Jan 2018):</u>	LOT	1		
D	Hot dipped galvanized steel straight trunking with removable covers.	LS			
E	Hot dipped galvanized steel trunking elbows, offset and combination elbows, adaptors and tees are manufactured and supplied by the same trunking manufacturer.	LS			
F	Trunking support brackets are fabricated from hot dipped galvanized steel.	LS			
G	25mm x 3mm copper bridging as earthing conductor.	LS			
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BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
BILL F - ELECTRICAL WORK (CONT'D) LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) LUMINAIRES <u>Supply, install, test and commission of the following and comply with specification L-S1 (Revision: 4 Date: Jan 2018) :</u>					
A	1 x 21W surface mounted downlight type LED luminaires with frosted tampered glass, die cast aluminium housing, built-in driver, etc.The characteristic of LED downlight for correlated colour temperature (CCT) shall be 4000K.	NO	16		
B	3 x 30W LED track lights mounted to ceilings with adjustable heads for targeted illumination. The light fixtures are attached anywhere on a continuous track device that contains electrical conductors.	NO	1		
C	1 x 100W wall mounted IP65 LED floodlight c/w LED driver, optical cover tempered glass, accessories, support, etc.	NO	4		
D	Surface mounted LED Emergency light c/w accessories, support, etc and approved by Jabatan Bomba Dan Penyelamat Malaysia.	NO	2		
FANS <u>Supply, install, test and commission of the following and comply with specification L-S1 (Revision: 4 Date: Jan 2018) :</u>					
E	1500mm dia. ceiling fans c/w regulator, suspension rod, cutt-off safety device, blade safety plate, safety wire rope, etc.	NO	6		
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BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
BILL F - ELECTRICAL WORK (CONT'D) LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) DISTRIBUTION BOARDS <u>Supply, deliver, install, test and commission of the following and comply with specification L-S1 (Revision: 4 Date: Jan 2018) :</u>					
A	14-way SPN DB 'JETI' c/w 1P MCB's, 40A 2P MCCB's, 40/0.1A 2P RCCB's, 40/0.03A 2P RCCB's, 2 nos. 30A contactor, 2 nos. time switch, selector switch, etc. as per drawing JKRCKIP.ELEK/K/23/KS06/002 .	LOT	1		
B	<u>Supply and install solid earthing system for distribution boards and comply with L-S1 (Revision: 4 Date: Jan 2018):</u> Earthing conductors using 1 x 16 sq. mm PVC green in galvanised steel conduit from distribution boards to earth chamber at approach jetty.	M	40		
C	One set of heavy duty type inspection chamber with removable cover comprising one set of two (2) length of 1500mm copper-jacketed steel core rods.	LOT	2		
D	Interconnection between different earth electrodes using 25mm x 3mm annealed copper tape (separation between two earth electrodes shall be more than, but less than twice, the driven depth of the earth electrode).	LS			
E	Termination of protective conductor or earthing conductor and copper-jacketed steel core by exothermic welding type.	NO	2		
F	A permanent label durably marked with the words 'Safety Electrical Connection - Do Not Remove', in legible type not less than 4.75mm high is permanently fixed at the connection point of an earthing conductor to an earth electrode.	NO	2		
G	Labeling all outgoing cables from the distribution board using alphanumeric circuit number labels whereas the labels of the neutral and earth shall correspond to those of the phase circuit.	LS			
H	Provided with a laminated schematic diagram and pasted on the inside cover of the Distribution Board. The description of each circuit printed thereon shall include the corresponding circuit number in the as-installed schematic diagram.	LS			
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PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
BILL F - ELECTRICAL WORK (CONT'D) LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) TNB METER KIOSK					
A	Supply, deliver, install, test and commission metalclad cubicle type floor mounted single phase TNB meter kiosk including all cable termination, door handle lock, top and bottom plunger equipped with anti tempered mechanism and all accessories as per requirement by Tenaga Nasional Berhad (TNB).	LOT	1		
B	To construct a concrete base plinth to suit the size of the TNB meter kiosk with cement flooring for standing during maintenance works and sleeve pipe for cable entry.	LS			
C	To supply, deliver and install a single-phase panel box comprising a 63A cut-out and neutral link to be mounted outside of the TNB meter kiosk.	LS			
	<u>Supply and install solid earthing system for TNB meter kiosk and comply with specification L-S1 (Revision: 4 Date: Jan 2018):</u>				
D	Earthing conductors using 25mm x 3mm annealed copper tape to earth chamber.	LS			
E	One set of heavy duty type inspection chamber with removable cover comprising one set of two (2) length of 1500mm copper-jacketed steel core rods.	LOT	2		
F	Interconnection between different earth electrodes using 25mm x 3mm annealed copper tape (separation between two earth electrodes shall be more than, but less than twice, the driven depth of the earth electrode).	LS			
G	Termination of earthing conductor and copper-jacketed steel core by exothermic welding type.	NO	2		
H	A permanent label durably marked with the words 'Safety Electrical Connection - Do Not Remove', in legible type not less than 4.75mm high is permanently fixed at the connection point of an earthing conductor to an earth electrode.	NO	2		
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PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
BILL F - ELECTRICAL WORK (CONT'D) LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) UNDERGROUND CABLING WORKS <u>Supply, deliver, lay, test and commission underground cable and comply with specification L-S3 (Revision: 1 Date: September 2020):</u>					
A	2C 16 sq. mm Cu/PVC/SWA/PVC underground cable from TNB pole to TNB meter kiosk c/w uPVC cable protective covers.	M	15		
B	2C 16 sq. mm Cu/PVC/SWA/PVC underground cable from TNB meter kiosk to DB' Jeti' c/w uPVC cable protective covers.	M	40		
<u>To supply, deliver and install cable ducts c/w accessories and comply with specification L-S3 (Revision: 1 Date: September 2020):</u>					
C	50mm diameter heavy duty galvanised iron class B installed along a TNB concrete pole with an anti-corrosive support bracket or clamp.	M	6		
<u>To supply, deliver and install a cable tray to support the 2C 16 sq. mm Cu/PVC/SWA/PVC underground cable c/w accessories and comply with specification L-S1 (Revision : 4 Date : Jan 2018):</u>					
D	Perforated hot dipped galvanized cable tray.	M	40		
E	Hot dipped galvanized cable tray bends, tee pieces, adaptor and other accessories are manufactured and supplied by the same cable tray manufacturer.	LS			
F	Cable tray support brackets fabricated from hot dipped galvanized type.	LS			
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PEMBINAAN JETI DAN PELANTAR BAHARU DI TAMAN NEGERI ULU MUDA, KEDAH

BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	<u>BILL F - ELECTRICAL WORK (CONT'D)</u> LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) TEST AND TEST CERTIFICATE				
A	After the installation work has been completed the electrical installation shall undergo testing and commissioning (functional and operational tests) as prescribed in Electricity Regulations 1994, IEC 60364-6, Specification L-S1 and any other tests deemed necessary by the S.O.'s.	LS			
B	To submit Supervision and Completion Certificate (Form G) and Test Certificate (Form H) signed by a competent person in respect of the test of the installation.	LS			
	SUPPLY APPLICATION				
C	Liase with Tenaga Nasional Berhad (TNB) for the process of application and connection of a single phase new electricity supply (not including connection charge and deposit).	LS			

BILL F ELECTRICAL WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
	BILL F - ELECTRICAL WORK (CONT'D) LOW VOLTAGE ELECTRICAL INSTALLATION (ALL QUANTITIES ARE PROVISIONAL) COLLECTION From Page No. BILL F/1/8 From Page No. BILL F/2/8 From Page No. BILL F/3/8 From Page No. BILL F/4/8 From Page No. BILL F/5/8 From Page No. BILL F/6/8 From Page No. BILL F/7/8				
To "Ringkasan Tender"					

BILL G ENVIRONMENTAL PROTECTION AND ENHANCEMENT WORKS

Item	Description	Unit	Quantity	Rate (RM)	Amount (RM)
A	<u>PHYSICAL WORKS</u>				
	<u>TEMPORARY SEDIMENT CONTROL</u>				
	<u>Silt Curtain (All Quantities Are Provisional)</u>				
A	Installation of silt curtain with high strength woven geotextile fabric (tensile strength at least 150kN/m) including accesorries (anchor, floats, etc.) according to the approved method of installation by the supplier or vendor, and as specified and as shown in the drawing or as directed by the S.O.	LS			
	<i>Note : The contractor shall familiarize with site and local mean sea level conditions to obtain actual length and depth of silt curtain. Approximate coverage area 250m2</i>				
	<u>Maintenance</u>				
B	Items for maintenance shall be deemed to include disposal of accumulated debris, sediment and silt to an approved site, unless otherwise stated.	LS			
				To "Ringkasan Tender"	