

SECTION K

SUMMARY OF TENDER

CADANGAN MEMBINA LAPANGAN PERNIAGAAN YANG MENGANDUNGI:**i) SEBUAH PUSAT KOMUNITI 2 TINGKAT****ii) DATARAN KOMUNITI****iii) RUANG PERNIAGAAN BESERTA KEMUDAHAN AWAM (TANDAS DAN BILIK UTILITI)****iv) MEDAN 'FOODTRUCK'****v) 1 UNIT RUMAH SAMPAH BESERTA RUANG KITAR SEMULA****vi) 1 UNIT PENCAWANG PADAT****DI ATAS LOT 35571, JALAN PALAS 3, TAMAN TERATAI, MUKIM KULAI, DAERAH KULAI, JOHOR DARUL TA'ZIM UNTUK MAJLIS BANDARAYA ISKANDAR PUTERI****GENERAL SUMMARY**

ITEM	DESCRIPTION	PAGE	AMOUNT (RM)
A	BILL NO.1 - PRELIMINARIES	B1/11	
B	BILL NO.2.1 - PUSAT KOMUNITI	B2.1/S	
C	BILL NO.2.2 - TANDAS DAN UTILITI	B2.2/S	
D	BILL NO.2.3 - RUANG PERNIAGAAN	B2.3/S	
E	BILL NO.2.4 - RUMAH SAMPAH	B2.4/S	
F	BILL NO.3 - PROVISIONAL SUM	B3/S	
G	BILL NO.4 - EXTERNAL WORKS	B4/S	
H	BILL NO.5 - LANDSCAPE WORKS	B5/S	
J	BILL NO.6 - MECHANICAL & ELECTRICAL WORKS	B6/S	
TOTAL CARRIED TO FORM OF TENDER			

RINGGIT MALAYSIA:.....
.....

COMPLETION PERIOD : (____) MONTHS

.....
Signature & Chop of Tenderer.....
Signature of Witness

Name in full :

Name:

NRIC No. :

NRIC No. :

In the capacity of :

In the capacity of :

Address :

Address :

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..........
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Phone No. :

Phone No :

Date:

Date:

SECTION L

BILLS OF QUANTITIES

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>PRELIMINARY ITEMS & GENERALLY</u></p> <p>The Preliminary items as set out hereunder are deemed to apply to the whole of the Works all as shown on the Drawings and/or as described in this Bills of Quantities and the Contractor shall allow for complying with the same and for any cost in connection therewith.</p> <p><u>DEFINITIONS</u></p> <p>"Employer" Shall mean Majlis Bandaraya Iskandar Puteri Jalan Medini Sentral 9, Bandar Medini Iskandar, 79250 Iskandar Puteri, Johor Darul Ta'zim.</p> <p>"Contractor" Shall mean The person or persons, firm or company referred to as such in the Form of Agreement and shall include his or its heirs, personal representatives, successors and permitted assigns.</p> <p>"Superintending Officer" (SO) Shall mean Datuk Bandar Majlis Bandaraya Iskandar Puteri Jalan Medini Sentral 9, Bandar Medini Iskandar, 79250 Iskandar Puteri, Johor Darul Ta'zim.</p> <p>"Architect" Shall mean Messrs ARKITEK ICB SDN BHD 5-02, Impian Business Park, Jalan Dato' Jaafar 1, 80350 Johor Bahru, Johor Darul Ta'zim. Tel : +607 - 2216141 Fax : +607 - 2216142</p> <p>"Civil & Structural Engineer" Shall mean Messrs OMK JURUTERA PERUNDING SDN BHD 83, Jalan Rawa, Taman Perling, 81200 Johor Bahru, Johor Darul Ta'zim. Tel : +607 - 2412639/41 Fax : +607 - 2412640</p> <p>"Mechanical & Electrical Engineer" Shall mean Messrs PERUNDING INFINITI SDN BHD No. 66-01, Jalan Putra 1, Taman Sri Putra, 81200 Johor Bahru, Johor Darul Ta'zim. Tel : +607 - 5952456 Fax : +607 - 5506542</p> <p>"Quantity Surveyor" Shall mean Messrs KINABALU SETIA KONSULT SDN BHD No. 2-07, Jalan Kolam Ayer, Nong Chik Riverside, 80100 Johor Bahru, Johor Darul Ta'zim. Tel : +607 - 2209953 Fax : +607 - 2209953</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>DEFINITION</u> (Cont'd)</p> <p>“Works” Shall mean the works to be executed in accordance with the Contract</p> <p>“Contract” Shall mean the Agreement executed between the Employer and the Contractor together with the documents forming part thereof</p> <p>“Month” Shall mean calendar month</p> <p>“Approved”, “Selected” “Directed” Shall mean to be approved, selected or directed by the Superintending Officer (SO)</p> <p> The term “Architect” whenever used shall be taken also to read as “Superintending Officer (SO)”</p> <p>“As Described” The words “As Described” in the General Specification and/or Bills of Quantities</p> <p>a. <u>METHOD OF BILLING</u></p> <p>The Contractor’s attention is drawn towards the fact that these Bills of Quantities have been written in an <u>ELEMENTAL FORM</u> i.e. the items are grouped under Elements and within each Element, the items have been set out, as far as possible in Trade Order.</p> <p>b. <u>ABBREVIATIONS</u></p> <p>The following abbreviations where used in the Specification shall read in full (as given in brackets) as follows :</p> <p>M.S. : Malaysian Standards published by the Scientific And Industrial Research Institute of Malaysia (SIRIM).</p> <p>B.S. : British Standard Specification as issued by the British Standards House, London. The latest issue published is implied in all cases used.</p> <p>C.P. : British Standard Code of Practice issued by the Council of Code of Practice in Britain. The latest issue published is implied in all cases used.</p> <p>P.K.K. : Pusat Khidmat Kontraktor.</p> <p>L.P.I.P.M : Lembaga Pembangunan Industri Pembinaan Malaysia</p> <p>J.K.R. : Jabatan Kerja Raya.</p> <p>P.W.D. : Public Works Department.</p> <p>MBIP : Majlis Bandaraya Iskandar Puteri</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>ABBREVIATIONS (Cont'd)</u></p> <p>The following abbreviations where used in the Specification shall read in full (as given in brackets) as follows : -</p> <p>M : Linear Metre</p> <p>M2 : Square Metre</p> <p>M3 : Cubic Metre</p> <p>MM : Millemetre</p> <p>No : Number</p> <p>Prs : Pairs</p> <p>Kg : Kilogram</p> <p>Tonne : Metric Tonne</p> <p>b. <u>METRICATION</u></p> <p>The quantities and the dimensions represented in this Bills of Quantities are in Metric and whenever any imperial dimension appears herein shall comply to nearest metric equivalent. The Contractor shall forthwith give notice to the Superintending Officer/Architect in the event that any materials cannot be procured in the Metric size given. Under no circumstances will the Contractor will be allowed to replaced any material, with imperial equivalent until the Superintending Officer's/Architect's approval is first obtained.</p> <p>As soon as practicable after the receipt of any such notice under the proceeding sub-clause the Superintending Officer/Architect shall given an order to the Contractor which shall either :</p> <p>i) Direct the Contractor to supply the materials to the dimensions stated in his said notice to the procurable instead of the dimensions described in the Contract or originally ordered by the Superintending Officer/Architect</p> <p>or</p> <p>ii) Direct the Contractor to make some other variation whereby the need to supply such materials to the dimensions described in the Contract of originally ordered by the Superintending Officer/Architect will be avoided.</p> <p>The Contractor shall note that any extra costs, expense and time involved in pursuant to this clause shall be borne solely by the Contractor. The provisions of this clause shall apply irrespective of whether the materials in question are to be supplied in accordance with the Contract directly by the Contractor or indirectly by a Nominated Sub-Contractor or Nominated Supplier.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>SCOPE AND GENERAL DESCRIPTION OF WORKS</u></p> <p>The works covered by this contract comprises the construction and completion of the following : -</p> <ul style="list-style-type: none"> i) The building works <ul style="list-style-type: none"> a) Building Works <ul style="list-style-type: none"> i) 1 unit Pusat Komuniti ii) 1 unit Tandas dan utiliti iii) 1 unit Ruang Perniagaan iv) 1 unit Rumah Sampah v) 1 unit Pencawang Padat TNB a) Mechanical & Electrical Works The internal and external finishes and the fittings for the building works shall be as indicated in the attached schedule of finishes, schedule of sanitary wares and fittings and schedule of ironmongeries. ii) The external infrastructure works comprising of : - <ul style="list-style-type: none"> a) External Works b) Landscaping Works <p>The Contractor shall take every precaution to protect the existing completed works during the progress of his own works. No claim by the contractor for additional costs and expense and extension of time arising out of his neglect of this Clause will be entertained.</p>	
	<p><u>WORK TO BE EXECUTED BASE ON PHASE METHOD AND ENTIRE SATISFACTION OF SUPERINTENDING OFFICER</u></p> <p>Tenderers shall note that the Works are required to be construct base on four (4) phase method due to fresh market still open and sharing of common access, etc. The Contractor's prices shall include for complying with the above.</p> <p>All works shall be executed to the entire satisfaction of the Superintending Officer.</p>	
c.	<p><u>SITE</u></p> <p>The site of the proposed works is at Lot 35571, Jalan Palas 3, Taman Teratai, Mukim Kulai, Daerah Kulai, Johor Darul Takzim as shown in the "Pelan Lokasi Dan Pelan Kunci" which forms one of the Tender Table Drawings.</p> <p>The Contractor shall be deemed to have visited the site of the Work and thoroughly acquainted himself with the location, facilities of access, type of soil and materials to be excavated, levels and variations of the strata therein, the requirement of any the extent, levels and quantity of water to be dealt with, local conditions as to supply of labour, materials, services, existing neighboring structure and other site conditions which may effect their tenders. No claim will be allowed on the grounds of ignorance of the conditions under which the works will be executed.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>WORKING WITH OTHER CONTRACTORS</u></p> <p>The Contractor has to share the site with other Contractors engaged by the Employer and shall exercise due care in carrying out his work without causing inconvenience to others. He shall also co-operate with other Contractors employed by the Employer including sharing of common access, etc and agreeing on work program so that the progress of his work or other Contractor's are not adversely hindered. No claims will be considered on grounds of hindrance/obstruction experienced due to the presence of other Contractors being employed or ground the site.</p> <p>The Contractor shall allow for his share of the cost of maintenance of drainage system and all roads, tracks used by him for access to and from the site. The cost of maintenance of the drainage system and the common accesses shall be borne by all Contractors using them and the right is reserved to the Superintending Officer to apportion such costs at his sole discretion and judgment. The Contractors share of the cost of maintenance of the drainage system and accesses shall be deducted from his progress payment or from any sums that may become due to him under this Contract.</p> <p><u>TENDER TABLE DOCUMENTS</u></p> <p>Tender Table Documents, which include the Form of Tender, Form of Contract, Bills of Quantities and principal drawings, may be inspected at the offices of the Majlis Bandaraya Iskandar Puteri, Jalan Medini Sentral 9, Bandar Medini Iskandar, 79250 Iskandar Puteri, Johor Darul Ta'zim during normal working hours or any working day up till the time appointed for receiving tenders.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>ORDER OF WORKS</u></p> <p>The Contractor shall carry out the works in such order as the Superintending Officer may direct.</p> <p>The Contractor shall not be entitled to claim any expenses if the Superintending Officer may direct to reorganize his work force so as to complete the project within the contract period.</p> <p><u>PREPARATION AND SUBMISSION OF TENDER</u></p> <p>Each tenderer will be provided with one (1) copy of each of the following for the purpose of submission of his tender : -</p> <ul style="list-style-type: none"> i) Form of Tender (bound together with the Bills of Quantities), ii) Bills of Quantities iii) Drawings and Specification <p>The completed, signed and witnessed Tender Form together with the Bills of Quantities fully priced, signed and witnessed shall be delivered in sealed envelope within the time, specified in the published tender notice or as advised in the invitation to tender. Both the Tender Form and Bills of Quantities shall be filled in ink. Tender submitted not accompanied by a priced Bills of Quantities are liable to be disqualified.</p> <p>The Contractor is advised to examine the drawings and other tender documents and make himself thoroughly acquainted with all relevant details as no claims due to lack of acknowledge of detail will be entertained</p> <p>The priced Bills of Quantities of any Contractor whose tender is being considered for acceptance will be checked for arithmetical errors in extensions, casts, etc and his rates will be scrutinized by the Quantity Surveyors who will submit a report to the Employer before any tender is accepted. An adverse report may affect the Employer's decision in awarding the Contract. Tenderers are therefore urged to ensure that all extensions and casts are efficiently checked and that th rates are fair and consistent.</p> <p>The Employer does not bind himself to accept the lowest or any tender and in no case will any expense incurred by the Contractors in the preparation to their tenders be allowed.</p> <p><u>BILLS OF QUANTITIES</u></p> <p>This Bills of Quantities have been measured in accordance with the general principles of the "Standard Method of Measurement of Building Works for use in Malaysia" (Metric Edition) published by the Institution of Surveyor's (Malaysia). Where the express provision of the Standard Method of Measurement have been departed from, the method of measurement used in these Bills of Quantities shall be adhered to for the purpose as ascertaining the value of all variations or remeasurement. Any departure from the basis of measurement as defined by the Standard Method of Measurement will in no way vitiate this Contract.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>BILLS OF QUANTITIES</u> (Cont'd)</p> <p>The rate set down by the Contractor against each item in these Bills of Quantities, unless expressly provided to the contrary, shall be held to include for the provision of all labour, materials, conveyance and delivery, unloading, storing, cutting and waste on materials, hoisting, setting and fixing in position, return of packings, use of all tools, plant and machinery, all duties and taxes where applicable, established charges and profit and all other labour and everything else necessary for the due and proper completion of each item. The amount of the Tender shall truly represent the total sum of all times in the Bills of Quantities. All the works described in the Bills of Quantities are to be taken as new (unless otherwise distinctly stated).</p> <p>All quantities in these Bills are taken absolutely nett and are firm except where described as "Provisional" only Provisional Quantities and Variations will be measured and valued in accordance with the Conditions of the Contract. The Employer will not be liable for any cost incurred by the Contractor in connection with the measurement of additional works, etc., extra or omissions and variations from the Contract or in the adjustment and settlement of accounts.</p> <p>Provisional Quantities and Sums shall be used as directed by the Superintending Officer and deducted wholly or in part if not required. The Employer shall reserve the right to amend any rates, which are found unreasonable with the concurrence of the Contractor and the amended rates shall be used for measuring of variations.</p> <p>The Contractor shall not make any alteration to the text of the Bills of Quantities. If any alteration, addition or note is made by him, such alteration, addition or note will not be recognized and the text of the Bills of Quantities as originally prepared will be strictly adhered to.</p> <p>Each item in the Bills of Quantities shall be individually priced. Bulk prices for section, trade or groups of items will not be accepted.</p> <p>Where any clause or items in these Bills of Quantities is not priced, it shall be deemed that the cost of such clause or item has been allowed elsewhere within these Bills of Quantities. No subsequent claims against such item or clause will be considered.</p> <p>The Contractor is requested to check the number of each page in the Bills of Quantities and if any is missing or duplicated or if any figure or description is indistinct he is to notify at once the Quantity Surveyor who will rectify the matter. No claims for loss consequent upon the Contractor's failure to observe this clause will be considered.</p> <p>Any error or omission in the rates and calculations of the Contractor in the Bills of Quantities submitted by him shall, before the signing hereof, be so rectified and adjusted that when correctly calculated, the total amount shall represent the same amount as that entered by the Contractor on the Form of Tender.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>BILLS OF QUANTITIES</u> (Cont'd)</p> <p>The nett aggregate amount of errors is moneying-out items in the Bills of Quantities, whether a nett deduction or a nett addition, will be calculated as a percentage of the corrected total of the Bills of Quantities and all unit rates throughout the Bills of Quantities shall be subjected to such percentage adjustment. Provided always that Provisional or Prime Cost Sums shall be excluded from the calculation and shall not be subjected to such percentage adjustment.</p> <p>Whenever the term "Allow" is used in these Bills of Quantities, the item so designated shall be at the Contractor's sole risk.</p> <p>The amount appearing as the total of the General Summary at the end of these Bills and marked "Carried to Form of Tender" shall be transferred to the Tender Form without any alteration or rounding off.</p> <p>a. <u>DRAWING</u></p> <p>The drawing as listed at the end of this document have been used in the preparation of these Bills of Quantities and may be inspected at the office of the Quantity Surveyor during normal office hours on any working day up till the time appointed for receiving tender.</p> <p>The drawing used in the preparation of these Bills of Quantities shall not be taken as final and are not to be considered as limiting or extending the amount of work to be executed or materials to be supplied from time to time as construction progresses or as the Contractor request after giving notice in adequate time (minimum two (2) weeks in advance) to the Superintending Officer the scope or extent of the works or materials to be supplied are to be ascertained from the construction drawings.</p> <p>The Contractor shall be deemed to have examined the drawings prior to submission of tenders, no claim for extras consequent upon non examination of drawings will be considered.</p> <p>Upon award the contract and from time to time thereafter the contractor shall submit to the Superintending Officer a schedule of "Request for Information" starting the information required and the date such information is due. Provided that any 'Request For Information' shall have been given to the Superintending Officer at least two (2) weeks before such information is due.</p> <p>b. <u>DISCREPANCIES IN DRAWINGS</u></p> <p>The contractor shall be responsible for checking all drawings issued to him and if he finds discrepancies in the Drawings (including discrepancies between the Architectural and other Consultant Drawings) he shall, before proceeding with the Works, inform the Superintending Officer of such discrepancies and the Superintending Officer's ruling shall be taken as final</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>DISCREPANCIES IN DRAWINGS</u> (Cont'd)</p> <p>Before commencing work on any position of the works, the Contractor shall check all details and dimension shown in the construction drawing sufficiently well ahead of physical construction and in the event of any discrepancy, shall be immediately notify the Superintending Officer and obtain the necessary construction on the correct details and dimension to be followed.</p> <p>Figured dimensions on the drawings shall be followed in all cases. Where dimensions are omitted or in doubt, the Contractor shall seek the advice of the Superintending Officer.</p> <p>No claim by the contractor for any extra costs and time lost result of discrepancies in drawings will be entertained if he fails to inform the Superintending Officer of such discrepancy before proceeding with the works.</p> <p>a. <u>FORM OF CONTRACT</u></p> <p>i) The Form of Contract to be used shall be the 'Standard Form of Contract to be used Where Bills of Quantities Form Part of The Contract PWD 203A - (Rev 2010) with addendums</p> <p>ii) This is a firm price contract with no exemption for prices of cement, steel, aggregates, sand, bricks, timbers, glass, ceiling materials, roofing materials, steel and metal sections, plumbing materials, floor and wall tiles, sanitary fittings, ironmongery and paint hereinafter specified.</p> <p>iii) The Conditions of Contract shall be read conjointly with the Bills of Quantities. A copy of the Standard Form of Contract is available for inspection in the Tender Table Document previously mentioned.</p> <p>iv) The tenderer shall refer to the full documents of the Standard Form of Contractor for full information.</p> <p>v) The clause numbers and titles of the Conditions of Contract, together with any amendments, additional conditions, information etc are given below. The tenderer shall allow here or in his prices for expenses involved in complying with these Conditions.</p> <p>b. <u>SCHEDULE OF CONTRACT CONDITIONS</u></p> <p><u>Clause No</u></p> <p>1 <u>Definitions and Interpretation</u></p> <p>2 <u>Contract Period</u></p> <p>3 <u>The of Superintending Officer and Superintending Officer's Representatives</u></p> <p>4 <u>Superintending Officer's Right To Take Action</u></p> <p>5 <u>S.O.'S Intructions</u></p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>6 <u>Scope of Contract</u></p> <p>7 <u>Contract Sum</u></p> <p>8 <u>Contract Documents</u></p> <p>9 <u>Representations, Warranties and Undertakings of the Contractor</u></p> <p>10 <u>Obligations Of The Contractor</u></p> <p>11 <u>Inspection Of Site</u></p> <p>12 <u>Programme Of Work</u></p> <p>13 <u>Performance Bond/ Performance Guarantee Sum</u></p> <p> (a) The Contractor shall as a Conditions precedent to the commencement of any work under this Contract, deposit with the Employer a Performance Bond in the form of an approved Banker's Guarantee equal to five percent of the Contract Sum for the due observance and performance of this Contract.</p> <p> (b) The Performance Bond shall be held or shall remain valid and affective for such period as is provided in the approved Banker's Guarantee</p> <p> © If the Contractor fails to execute the Contract or commits any breach of his obligations under the Contract, the Employer or the Superintending Officer on its behalf may utilize and make payment out of or deductions from the said Performance Bond or any part thereof in accordance with the terms of this Contract.</p> <p> (d) The Performance Bond (or any balance thereof remaining for the credit of the Contractor) may be released or refunded to the Contractor on issuance of the Certificate of Practical Completion.</p> <p>14 <u>Indemnity In Respect Of Personal Injuries And Damage To Property</u></p> <p>15 <u>Insurance Against Personal Injuries And Damage To Property</u></p> <p> Shall be taken up by the Contractor.</p> <p>16 <u>Indemnities To Government in Respect Of Claims by Workmen</u></p> <p> Shall be taken up by the Contractor.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>17 <u>Employees' Social Security ACT, 1969</u></p> <p>(a) Notwithstanding anything to the contrary contained elsewhere in the Contract Documents, the Contractor shall cause all Sub-Contractors whether nominated or otherwise to comply with the requirements of the Employees Social Security Act, 1969 as described under Clause 35 of the Conditions of Contract. The Contractor shall be responsible to submit to the Superintending Officer whether demanded or not, the Employer's Code Numbers of the Sub-Contractors and Social Security Numbers, or copies of Form 2 or Form 3 if the Social Security Numbers are not yet available of all 'employees' employed by them.</p> <p>18 <u>Insurance Of Works</u></p> <p>19 <u>Setting Out</u></p> <p>(a) As-Built drawing for Earthwork platform level shall be given to the Contractor on Site Possession date. However, immediately after taking possession of the Site and before commencing work, the Contractor shall employ a licensed land surveyor to check the actual levels and dimension against those shown on the drawings and in the event of any discrepancy the contractor shall immediately notify the Superintending Officer within 14 (fourteen) days. The Contractor shall be responsible for and shall entirely at his own cost amend any errors arising from his own inaccurate setting out.</p> <p>(b) Where existing levels are relevant to the measurement of any part of the Works, the Contractor shall take and record such levels before such part of the Works is commenced. The taking and recording of such levels shall be carried out under the direction and in the presence of the Superintending Officer's Representative. Two copies of the recorded levels when checked and signed by the Superintending Officer's Representative and by the Contractor shall be supplied to the Superintending Officer's Representative and shall be used as a basis of measurement for payment.</p> <p>(c) The Contractor shall allow here for a check survey on Practical Completion and for submitting to the Superintending Officer a certificate signed by the Licensed Land Surveyor stating that the Works are wholly within the titled boundaries.</p> <p>(d) The contractor shall prepare and supply "As-Built" Survey Drawing showing all proposed building and infrastructure, prepared by a licensed Land Surveyor.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u>	
	<u>Clause No</u> (Cont'd)	
20	<u>Unfixed Materials And Goods</u>	
21	<u>Compliance With The Law</u>	
22	<u>Design</u>	
22.1	If Contractor undertake the design of any part of the IBS components, he shall submit all drawings, specifications, calculations and any other information for S.O's approval.	
22.2	Contractor to price a Design Guarantee Bond for the said part of the works design by contractor amounting 5% of the said part of the Works and shall be issued by an approved licensed bank or financial institution.	
23	<u>Employment Of Workmen</u>	
(a)	(i) The Contractor shall maintain and furnish to the Superintending Officer a full list of all his workmen employed by sub-contractors or in connection with the works and giving particulars of each workman as required	
	(ii) A further copy of the particulars of the workmen above shall be kept and maintained at the Works site at all times for inspection.	
23.3	<u>Days And Hours Of Working</u>	
(a)	The Contractor shall not carry out any work outside the permissible working hours between 8.00am - 5.00pm except with the written permission of the Superintending Officer.	
23.4	<u>Wages Books And Time Sheets</u>	
(a)	The Contractor shall keep and shall cause his sub-contractors and Nominated Sub-Contractors to keep proper wage books and time sheets showing wages paid to and the time worked, for the performance of this Contract.	
24	<u>Variations</u>	
25	<u>Valuation Of Variation</u>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>26 <u>Bill Of Quantities</u></p> <p> (a) If the Superintending Officer has reason to believe that any quantity of work as stated in the Bills of Quantities has been inaccurately measured, he may order a remeasurement of the same to be carried out and with the agreement of the Contractor have the error rectified and the Contract Sum adjusted accordingly</p> <p> (b) If the Contractor has reason to believe that any quantity of work as stated in the Bills of Quantities has been inaccurately measured, he shall furnish proof of the same to the Superintending Officer by way of detailed measurement certified Quantity Surveyor, in which event sub-clause (a) above shall apply.</p> <p>27 <u>Measurement Of Works</u></p> <p>28 <u>Payment To Contractor And Interim Certificates</u></p> <p> (a) The Contractor shall make application for progress payment for work done in accordance with the Contract at the intervals to be agreed between the Contractor and the Superintending Officer. All such application for progress payment shall be accompanied by detailed list of work done including detail measurements thereof and for materials delivered on site. The Employer shall not be responsible for any delay in payment if any application for progress payment is not properly substantiated with the requisite details and documents.</p> <p> (b) To facilitate approval of applications for progress payments the Contractor shall submit to the Quantity Surveyor a copy of the delivery orders of all material delivered to site so as to enable the Quantity Surveyor to check and verify the material supplied.</p> <p> (c) The Superintending Officer may by any certificate make any correction or modification of any previous certificate, which shall have been issued by him and the Superintending Officer shall have power to withhold any certificate if the satisfaction.</p> <p> (d) "Materials and goods" shall mean material and goods, which will be incorporated into the Works. Only 90% of the total value of all material and goods on site will be approved for progress payment.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>28 (e) Materials and goods placed off site shall not be payable unless with the permission and written approval of the Superintending Officer.</p> <p>(f) No interest will be paid by the Employer on any sums of money retained neither by him nor on any sums of money claimed by the Contractor on account of extra works for which the Consultants have not yet ascertained the amounts.</p> <p>Final Completion and the act of making final payment of the balance of the contract price shall in no way be interpreted as complete exoneration of the Contractor from any defects that may arise due to causes attributable to negligence of the Contractor or inferior material or workmanship provided by him.</p> <p>29 <u>Adjustment Of Contract Sum</u></p> <p>30 <u>Fluctuation Of Price</u></p> <p>31 <u>Final Account And Payment Certificate</u></p> <p>32 <u>Effect Of S.O`S Certificates</u></p> <p>33 <u>Deduction From Money Due To Contractor</u></p> <p>34 <u>Prime Cost/Provisional Sums</u></p> <p>35 <u>Materials, Goods, And Workmanship</u></p> <p>(a) Materials and Workmanship are to be the best of their respective kinds and by 'best' shall be understood that no superior class of specified materials or workmanship is available in Malaysia.</p> <p>(b) (i) Materials and workmanship shall comply with the Malaysian Standard and/or British Standard and Codes of Practice wherever applicable and shall be approved by the Superintending Officer. The Contractor shall not alter or amend any of the description of materials in the Bills of Quantities and except where expressly provided to the contrary, <u>any offers of alternative materials will render the tender liable to disqualification</u>. Whenever in the Bills of Quantities any goods or materials are specified, such are to be considered as being the minimum standard acceptable.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>(b) (i) In the event of the Superintending Officer allowing the substitution of any of the materials during the course of the Contract, such substitution shall be accompanied by a corresponding deduction in cost unless the Superintending Officer otherwise directs.</p> <p>(ii) The Contractor shall, at his own cost and expenses, submit samples of materials and fittings for approval as and when required by the Superintending Officer. All samples, which are approved, shall be the measure of the standard to be maintained in the execution of works.</p> <p>(iii) The ironmongery and sanitary appliances as indicated in the Schedule of General Specifications and Schedule of Sanitary Ware and Fittings, respectively, shall be obtained from approved manufacturers. The Contractor shall submit together with his tender all relevant technical brochures and other data, of the ironmongery and sanitary appliances, which he proposed to use.</p> <p>The brand and model of ironmongery and sanitary appliances proposed by the Contractor to be used shall not be subsequently substituted without the prior written consent of the Superintending Officer allowing the substitution of any of the brand and/or model of the ironmongery and sanitary appliances proposed by the Contractor, such substitution shall be accompanied by a corresponding deduction in cost unless the Contractor can show to the satisfaction of the Superintending Officer that the brand and or/and model of ironmongery and sanitary appliances substituted cost less than the substitute.</p> <p>(c) (i) The Contractor shall place his orders for specified materials at the earliest possible date after notification of the acceptance of tender or at such times as may be specifically stated elsewhere herein for any particular materials.</p> <p>(ii) If the Contractor fails for any reason to supply any materials which he has contracted to supply or if he fails to supply any such materials in sufficient time to enable the Contract to be completed by the date fixed for completion, then in either event the Employer may supply any portion of all such materials. If the Employer supplies such materials, then the cost in respect thereof which shall be borne by the Contractor shall be :</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	SCHEDULE OF CONTRACT CONDITIONS (Cont'd)	
	Clause No (Cont'd)	
35	<p><u>Materials And Workmanship</u> (Cont'd)</p> <p>(c) (ii) EITHER The current market rates</p> <p style="padding-left: 80px;">OR The actual cost to the Employer at the date of supply, plus 15% for overheads and other charges,</p> <p style="padding-left: 80px;">WHICHEVER IS THE GREATER</p> <p>(iv) The cost to be borne by the Contractor as detailed above shall be deducted from any money due or to become due to the Contractor under this Contract and the Contract Sum shall be adjusted accordingly; provided that any variation order issued by virtue of this clause shall not be taken into account when computing the final amount of this Contract and no claim for loss of profit under Clause 44 of the Conditions of Contract shall be deemed to have arisen. No action by the Superintending Officer under this Clause shall be deemed in any way to affect or modify the right of the Employer to claim for damages in the event of the Contractor's failure to complete the Works by the date fixed for completion.</p> <p>(d) The Contractor's attention is also drawn to the provision that the importation of mild steel bars is subject to Customs Prohibitive Order (Import). Approval of import licenses from the Ministry of Commerce and Industry must be obtained before placing orders with overseas manufacturers and the Contractor shall be solely responsible for complying with this procedure.</p>	
36	<p><u>Inspection And Testing Of Materials, Goods And Equipment</u></p> <p>The Contractor shall provide and bear all the incurred cost for officer to visit the assembly / manufacturing plant as per request by the Clients.</p>	
37	<u>Contructional Plant, Equipment,Vehicles And Machineries</u>	
38	<u>Possession Of Site</u>	
39	<u>Completion Of Works</u>	
40	<u>Damages For Non-Completion</u>	
41	<u>Sectional Completion</u>	
42	<u>Partial Occupation/ Taking Over By Government</u>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>43 <u>Delay And Extension Of Time</u></p> <p>44 <u>Claims For Loss And Expense</u></p> <p>45 <u>Investigation by The Government And Other Persons In Case Of Accident, Failure Or Other Event</u></p> <p>46 <u>Access For Works,etc.</u></p> <p>47 <u>Sub-Contract Or Assignment</u></p> <p>48 <u>Defects After Completion</u></p> <p>49 <u>Unfulfilled Obligation</u></p> <p>50 <u>Suspension Of Works</u></p> <p>51 <u>Events And Consequences Of Default By The Contractor</u></p> <p>52 <u>Termination On National Interest</u></p> <p>53 <u>Termination On Corruption</u></p> <p>54 <u>Payments Upon Termination</u></p> <p>55 <u>Events and consequences of default by the Government</u></p> <p>56 <u>Certificate Of Termination Costs</u></p> <p>57 <u>Surviving Rights</u></p> <p>58 <u>Effect Of Force Majeure</u></p> <p>59 <u>Site Agents And Assistants</u></p> <p>Unless otherwise provided elsewhere in this Contract, the Contractor shall keep constantly on the Site a competent, efficient, suitability qualified with five (5) years working experience works and be a qualified member of the professional group (viz. Engineer, Architect or Quantity Surveyor) having a comprehensively theoretical background suitable qualification minima is Diploma or Degree. He must capable of receiving instructions in English and/or 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.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>60 <u>Nominated Sub-Contractors And/Or Nominated Suppliers</u></p> <p>61 <u>Payment To Nominated Sub-Contractor Or Supplier</u></p> <p>62 <u>No Liability Of Government To Nominated And/Or Sub-Contractor Or Supplier</u></p> <p>63 <u>Responsibilities Of Contractor To Nominated And/Or Sub-Contractors Or Suppliers</u></p> <p> (a) The Contractor shall be fully responsible for all sub-contractor for any delays or damage thereby occasioned and shall be responsible for the supervision and administration of all sub-contractors in accordance with the Conditions of Contract and shall be required to schedule the execution of the Work with each of the Nominated Sub-Contractors. The schedules shall be subject to the approval of the Superintending Officer.</p> <p> (b) The Contractor is to price where indicated later in the Bills of Quantities for the following attendance and facilities upon Nominated Sub-Contractors in the execution of Sub-Contract Works:</p> <p> (i) Ascertaining for Nominated Sub-Contractors all particulars relating to their work in regard to sites and positions in which chases, holes, mortices etc are required to be formed or left. The Contractor shall be responsible for any additional cost incurred as a result of any omission on his part in this respect;</p> <p> (ii) Making good of wall, ceiling, floors, roofs etc and finishes thereto including touching up of all paint work necessitated, damaged or disturbed by the Nominated Sub-Contractor's work;</p> <p> (iii) Supplying all setting out information;</p> <p> (iv) Giving all necessary dimensions and taking responsibility for their accuracy;</p> <p> (v) Affording free and full use of standing scaffolding hoisting it remains erected on the Site;</p> <p> (vi) Affording free and full use of storage accommodation for materials, equipment and plant, which are for incorporation into the Works and require protection against weather and deterioration, mess rooms, sanitary accommodation and welfare facilities;</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>(b) (vii) Providing SITE SPACE ONLY for Nominated Sub-Contractor's temporary office, workshops, workmen's accommodation and storage of materials, tools, plant and equipment which are not for incorporation into the Works and not requiring protection against weather or deterioration.</p> <p>(viii) Providing temporary water supply, electric power supply, artificial lighting and paying all fees and charges for fuel, water and electricity consumed;</p> <p>(ix) Liasing with the relevant supply/service authorities for the expeditious installation of the connections for permanent water and electricity supplies in the Works and making such supplies readily available to the Nominated Sub-Contractors. Paying on behalf of the Employer, all fees and charges including deposits for such installation and for water and electricity consumed by the Nominated Sub-Contractor for the test running and commissioning of Sub-Contract Works;</p> <p>(x) Providing competent personnel in compliance with the Electrical Inspectorate Regulations 1984 to take responsibility for the operation of electrical installation from the time the permanent electricity supply is made available until testing, commissioning and handing over of the works;</p> <p>(xi) Protecting, covering, watching and taking full responsibility for all Nominated Sub-Contractor's work and unfixed materials and good intended for use thereon;</p> <p>(xii) Removing rubbish and debris off the Site and cleaning the Works internally and externally.</p> <p>(c) The under mentioned items fall within the ambit of the Nominated Sub-Contractor and he shall includes in the Sub-Contractor Sum, inter alia, the costs in connection with the same: -</p> <p>(i) Unloading, getting in, storing and all handling and hoisting of his materials, plant and tools into required positions;</p> <p>(ii) Providing, erecting, maintaining and removing of all his temporary office, workshops and workmen's accommodation including paying all assessment and other charges;</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>(c) (iii) Connecting to temporary water and power supplies made available by the Contractor for the execution of the Works, supplying and running distribution pipes, hoses, cable, leads, electrical gear etc but EXCLUDING payment for water and electricity consumed;</p> <p>(iv) Provision of fuel, gas, steam, oil, lubricants, chemicals and everything else necessary (other than water and electricity) for the test running and commissioning of the Sub-Contract Works;</p> <p>(v) Any scaffolding, staging etc those are required for the Sub-Contract Works not covered by paragraph (b)(v) above;</p> <p>(v) Any scaffolding, staging etc those are required for the Sub-Contract Works not covered by paragraph (b)(v) above;</p> <p>(vi) Taking full responsibility for any loss or damage to his plant, tools, equipment and other property not for use or incorporation in the Sub-Contract Work.</p> <p>(d) Where attendance additional to that described above is required in connection with any Sub-Contract Work contained in the Bills of Quantities, such is to be separately priced where indicated.</p> <p>(e) The words "FIX ONLY", where used in the Bills in connection with any materials or goods supplied by Nominated Suppliers shall be understood to include : -</p> <p>(i) Taking delivery;</p> <p>(ii) Unloading, getting in, storing and protecting;</p> <p>(iii) Taking from store and placing in position including all hoisting etc required;</p> <p>(iv) Assembling and fixing;</p> <p>(v) Returning all chargeable packing, carriage paid and recovering all appropriate credits.</p> <p>64 <u>Intellectual Property Rights</u></p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SCHEDULE OF CONTRACT CONDITIONS (Cont'd)</u></p> <p><u>Clause No</u> (Cont'd)</p> <p>65 <u>Antiquities</u></p> <p> (a) The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging fossils, antiquities and other objects of interest discovered on the Site of the Works prior to the Superintending Officer's instruction as to their disposal.</p> <p>66 <u>Arbitration</u></p> <p>67 <u>Notice,etc.</u></p> <p>68 <u>Safety at the site</u></p> <p>69 <u>Advance Payment</u></p> <p>70 <u>Amendment</u></p> <p>71 <u>Confidentiality</u></p> <p>72 <u>Stamp Duty</u></p> <p>73 <u>Severability</u></p> <p>74 <u>Waiver</u></p> <p>75 <u>Laws Applicable</u></p> <p>76 <u>Successors Bound</u></p> <p>77 <u>Epidemics And Medical Attendance</u></p> <p>78 <u>Technology Transfer</u></p> <p>79 <u>General Duties And Performance Standard</u></p> <p>80 <u>Restriction And Procedure On Use Of Imported Material And Goods</u></p> <p>81 <u>Time</u></p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>APPENDIX TO CONTRACT CONDITIONS</u></p> <p>The Appendix to the Conditions of Contract shall be completed as follows: -</p> <p><u>Clause No</u></p> <p>4.1 (a) <u>Officer(s) empowered to take action on behalf of MBIP in respect of Clauses 40, 43,</u> Datuk Bandar Majlis Bandaraya Iskandar Puteri</p> <p><u>Officer(s) empowered to take action on behalf of MBIP in respect of Clauses 51, 52, 53, 57 and 65</u> Datuk Bandar Majlis Bandaraya Iskandar Puteri</p> <p>4.1 (b) <u>Officer Empowered to Approve Variations According to the Limits as Set Out In Treasury's Instruction no. 202 As Amended.</u> If the Contract Sum not more than RM10million and the total of variation propose not exceeding 10% of the original Contract Sum is more than RM10million and the the total of variation propose not exceeding RM1.0million * A committee chaired by the S.O named in the Contract</p> <p>If the Contract Sum not more than RM20million and the total of variation propose not exceeding 20% of the original Contract Sum is more than RM20million and the the total of variation propose not exceeding RM4.0million * Lembaga Perolehan MBIP</p> <p><u>Others</u> * Ketua Setiausaha Perbendaharaan or Pegawai Kewangan Negeri (Whichever applicable)</p> <p>11(d) <u>Date of Tender</u> As stipulated in the Tender Notice.</p> <p>13 <u>Amount Of Guarantee For Performance Bond</u> For the due observance and performance of this contract, the contractor may option for performance bond in the form of performance gurantee sum in lieu in cash, Tresury's Deposit, Banker Draft or Banker's as stipulated under clause 13 of condition of contract. If the contractor opts for performance bond in the form of performance guarantee sum, the relavant clause under this condition of contract shall be deem and agreed to have been amended as follow:</p> <p>a) Delete the word "or Insurance Guarantee" in the second line clause 13.2</p> <p><u>RM (5% of Contract Sum)</u> Policy No : To be inserted Period of Insurance : Contract Period + Defect Liability Period + 3 Months + 14 Days</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<u>APPENDIX TO CONTRACT CONDITIONS</u> (Cont'd)	
	<u>Clause No</u> (Cont'd)	
15	<u>Minimum insurance cover for any one accident for series of accidents arising out of one event</u> Policy No : To be inserted Period of Insurance : Contract Period + Defect Liability Period + 3 Months + 14 Days	
15.1 (b)	<u>Amount of excess clause</u> Nil	
17	<u>SOCSSO Scheme Registration member</u> To be submitted by Contractor	
18	<u>Amount To Be Added To Full Value Of Contract Sum As The insured Sum</u> <u>-RM (5% of Contract Sum)</u> Policy No : To be inserted Period of Insurance : Contract Period + Defect Liability Period + 3 Months + 14 Days	
18 (b)	<u>Amount of Excess Clause</u> Not Applicable	
28.1	<u>Value Of Work To Be Executed Including Materials And Goods To Be Delivered Before First Interim Certificate Will Be Issued</u> Ringgit Malaysia : One Thousand Only (RM 1,000.00)	
28.2	<u>Value Of Work To Be Executed Including Materials And Goods To Be Delivered Before Each Subsequent Interim Certificate Will Be Issued</u> Ringgit Malaysia : One Thousand Only (RM 1,000.00)	
28.6	<u>Period Of Honouring Payment Certificate</u> Thirty (30) Days	
34.4	<u>Work covered by P.C. Sum for which the Contractor will be permitted to tender</u> Not Applicable	
38.2	<u>'Date For Possession' Of The Site</u> To be inserted.	
39	<u>Date for Completion for The Whole of Works</u> To be inserted.	
40	<u>Liquidated and Ascertaining Damages At The Rates Of :</u> <u>Base Landing Rate</u> x <u>Contract Sum</u> 365 Days	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>APPENDIX TO CONTRACT CONDITIONS</u> (Cont'd)</p> <p><u>Clause No</u> (Cont'd)</p> <p>41 <u>Sectional Completion</u></p> <p>48.1 <u>Defects Liability Period (if not stated, then the period is</u> <u>Twelve (12) months)</u> Twelve (12) months)</p> <p>5.3 <u>Percentage of on-cost charges</u></p> <p>5.4 To be confirm later</p> <p>15.3</p> <p>17.3</p> <p>8.2</p> <p>48.2 <u>Percentage of on-cost charges</u></p> <p>55.2 To be confirm later</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>SITE MEETING</u></p> <p>The Contractor and his representatives shall arrange and attend the site meetings arranged at fortnightly or at intervals as directed by the Superintending Officer. The Superintending Officer shall record the proceeding of these meetings and arrange for the making and distribution of copies of the minutes to all interested parties.</p>	
b.	<p><u>MATERIALS AND WORKMANSHIP</u></p> <p>Description of Materials and Workmanship in these Bills of Quantities shall be read in conjunction with the Preambles and Materials and Workmanship incorporated in these Bills of Quantities. Materials and Workmanship shall be the best of their respective kinds and by 'test' shall be understood that no superior class of specified materials of workmanship is available in Malaysia. A certificate of origin for any material shall be produced on the demand by the Superintending Officer</p> <p>Materials and workmanship shall comply with the British Standards and Codes of Practice whenever applicable and shall be approved by the Superintending Officer. The Contractor is not to alter or amend any of the description of materials in these Bills of Quantities and except where expressly provided to the contrary, any offers of alternative materials will render the tender liable to disqualification. Wherever in these Bills of Quantities any goods or materials are specified such are to be considered as being the minimum standard acceptable.</p> <p>The letter B.S. refers to the British Standards Specifications as issued by the British Standards institution, British Standards House, London. The letters C.P. refer to the British Standards Code of Practice issued by the Council for Codes of Practice. The latest amendment is implied in each case.</p> <p>The term 'as described' shall mean as described in the Preambles and Materials and Workmanship with reference to schedules provided in this document. The terms 'Approved', 'Selected' and Directed shall mean approved, selected or directed by the Superintending Officer.</p> <p>Samples of materials and fittings and workmanship shall be submitted for approval as and when directed. All samples, which are approved shall indicate the standard to be maintained in the execution of the works.</p> <p>The Contractor shall provide and bear all the incurred cost for officer to visit the assembly / manufacturing plant as per request by the Clients.</p> <p>The Contractor shall place his orders for specified materials at the earliest possible date after notification of acceptance of tender or at such times as may be specifically stated elsewhere herein for any particular materials.</p> <p>The successful Contractor's attention is also drawn to the provision that the importation of mild steel bars is subject to Customs Prohibitive order (Import). Approval of import licenses from the Ministry of Commerce and Industry must be obtained before placing orders with overseas manufacturers and the Contractor shall be solely responsible for complying with this procedure.</p> <p>Figured dimensions are to be followed in preference to scaled dimensions and all dimensions and particulars are to be taken from the actual work where possible.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>MATERIALS AND WORKMANSHIP (Cont'd)</u></p> <p>The Contractor shall take note that the Bill of Quantities are not to be used as a basis for ordering any materials and there shall be no liability for any expenses incurred by the Contractor in connection with wrong items or abortive works which would have been apparent had the drawings and/or site measurements been checked.</p> <p>a. <u>SPECIALIST AND TRADEMEN'S WORK</u></p> <p>In the event of any specialist firm or firms being employed by employer, or by the Contractor, under the terms of this Contract the Contractor shall take full responsibility for any damage or delay which may be occasioned by them and shall hold Employer exempt from the consequences of anything that may eventuate in connection with their employment.</p> <p>The Contractor shall at all times attend upon other Tradesmen and make good any of his work which may become disturbed or damaged during the installation of other trades and leave in perfect condition to the satisfaction of the Superintending Officer</p> <p>b. <u>STAMPING OF CONTRACT DOCUMENT INCLUDING SUB-CONTRACT DOCUMENTS</u></p> <p>The Main Contractor shall arrange for all Contract Documents to be stamped and shall bear all expenses in respect to the stamping of the said documents including Sub-Contract Document between him and all Sub-Contractors and Suppliers.</p> <p>c. <u>CLAIMS FOR PROGRESS PAYMENTS</u></p> <p>The Contractor shall submit priced detailed statements in support of his claims for progress payments and there shall be lodged with the Superintending Officer with copies to the Quantity Surveyor not later than seven days before the progress payments are due.</p> <p>Such detailed statement in support of the claims for progress payments shall include: -</p> <ul style="list-style-type: none"> i) The total value of work executed set out by trades or elements, and ii) The total value of materials delivered to site supported by delivered vouchers. In no consequences that premature materials on site be included in the claims. <p>d. <u>WORKING WITH OTHER CONTRACTORS</u></p> <p>The Contractor has to share the site with other Contractors engaged by the Employer and shall exercise due care in carrying out his work without causing inconvenience to others. He shall also co-operate with other Contractors employed by the Employer including sharing of common access, etc. and agreeing on work programmes so that the progress of his work or other Contractors are not adversely hindered. No claims will be considered on grounds of hindrance/obstruction experienced due to the presence of other Contractors being employed or around the site.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>WORKING WITH OTHER CONTRACTORS</u> (Cont'd)</p> <p>The Contractor shall allow for his share of the cost of maintenance of drainage system and all roads, tracks used by him for access to and from the site. The cost of maintenance of the common drainage system and the accesses shall be borne by all Contractor by using them.</p> <p>In the event that the Contractors failed to settle the apportionment, the Architect and/or Employers reserved the right to derive to the costs at his sole discretion and judgement. Henceforth, the share of the cost of maintenance of the drainage system and accesses shall be deducted from his progress payment or from any sums that may become due to him under this Contract.</p> <p>The Contractor shall also work together with roof Sub-Contractor and other Sub-Contractor engaged by the Employer. No claims will be considered on ground of hindrance/obstruction experienced due to the presence of other Contractor being employed.</p> <p>a. <u>TEMPORARY ACCESS ROADS</u></p> <p>Form access to the site with all temporary roads, hardstanding, culverts, crossing within the site and temporary access point to site including protection to existing premix road, maintain in good condition, clear, and make good all damage done remove same when no longer required and reinstate of ground disturbed.</p> <p>The Contractor shall ensure that none of the aforesaid temporary works shall obstruct or impede existing or proposed drainage system.</p> <p>The Contractor will have to share the access and agrees points with other Contractor engaged by the Employer.</p> <p>No claim will be entertained in respect of any inconvenience or hindrance met by the Contractor due to the sharing of the access and egress points with other Contractors.</p> <p>b. <u>RESTRICTION OF PERSONS TO SITE</u></p> <p>The Contractor shall be responsible for keeping all persons and workmen (including those employed by all Sub-Contractors and suppliers) within the boundaries of the site and shall take all precautions to prevent trespass into adjoining properties and keep unauthorised persons off the site</p> <p>He shall be liable for and shall indemnify the Employer in respect of any claims or proceedings arising out of his neglect of this Clause.</p> <p>c. <u>PROTECTION OF EXISTING PUBLIC AND PRIVATE SERVICES</u></p> <p>Protect, uphold and maintain all existing pipes, ducts services mains, overhead cables, etc during the execution of the Works. The Contractor shall make good any damage due to any cause within his control at his own expense and pay any costs and charges in connection therewith. In cases where the services are to be temporarily terminated or diverted, the Contractor is to give the necessary notice to the appropriate Authority and arrange for the work to be carried out and pay all costs and charges in connection therewith.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>PROTECTION OF EXISTING PUBLIC AND PRIVATE SERVICES (Cont'd)</u></p> <p>The Contractor must make every effort to check and verify the existence and discover all underground services in and about the site. Any breakage of electrical cables, water services, sewers, telephone cables, etc due to the execution of works will be at risk and expense of the Contractor: such risk is to be extended to include any penalty or fine which the electrical or any appropriate authority deems fit to impose.</p> <p>a. <u>KEEPING SITE DRY</u></p> <p>The Contractor shall be responsible for keeping the whole of the Works well drained and free from all water (including rain, storm, spring and running water and water below the Water Table Levels and the Contractor is to ascertain for himself the water level as no claims will be entertained on the ground that these levels are not known or water arising from any other source) at all times to ensure that, so far as practicable all work is carried out in the 'dry'.</p> <p>He shall employ whatever means that may be necessary to keep the site dry including baling, pumping (including power pumping) provision of temporary earth drains (including precast concrete drains where they are deemed necessary by the Superintending Officer), drainage pits, water courses and any other means which the Superintending Officer may direct.</p> <p>The Contractor shall ensure that the water drained from the site shall be kept reasonably free from earth, debris etc. He shall be responsible for finding outlets for the discharge of the water drained from the site to the public drains, he shall be responsible for making arrangements with the Authorities to do so including paying all necessary fees and making good damages to the roads, drains etc.</p> <p>The Contractor shall be solely held responsible for the sufficiency of the arrangements made for the exclusion of water from the Works and shall be held responsible for keeping the Works safe and dry at all times including periods of heavy rainfall and for any loss or any damage which may result from the Contractor's neglect of his obligations.</p> <p>b. <u>SILTING</u></p> <p>The Contractor shall be deemed to have visited the site and to have ascertained the extent of desilting to be done to the existing monsoon drains so as to keep all the drains free of mud and other obstruction before commencement of works.</p> <p>The Contractor is also to keep all drains, streams and waterways free from mud, silt and other obstructions and make good where necessary to the satisfaction of the Superintending Officer during the currency of the Contract.</p> <p>c. <u>PERMITS AND LICENCES</u></p> <p>The Contractor shall allow for and obtain all necessary permits and licenses, etc required from the relevant authorities in connection with the carrying out of the works and pay all fees, royalties in connection therewith.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>DAMAGE TO EXISTING STRUCTURES, BUILDING, ROADS, CULVERTS</u></p> <p>The Contractor shall arrange for the conveyance of his materials, plant, carrying out of the works etc so as to cause a minimum of damage to existing structures, buildings, TNB Sub-Station, roads, culverts, drains, footpath, steps, retaining wall etc. He shall be held responsible for any damage caused by his carriers or workmen to any of these from whatsoever cause arising and shall maintain repair and reinstate same to their original conditions to the satisfaction of the Superintending Officer or alternatively shall bear the cost if such maintenance and reinstatement as a deduction from monies due or to become due to the Contractor under this Contract.</p> <p><u>AREA OF OPERATIONS</u></p> <p>Provide for taking reasonable precautions to prevent workmen including those employed by Sub-Contractors from trespassing on adjoining owner's property.</p> <p>The Contractor may have to share the site with other Contractors to be engaged by the Employer and the existing market trader and shall exercise care in carrying out his works without causing inconvenience to others. He shall also co-operate with other Contractors engaged by the Employer and co-ordinate their program.</p> <p>Previous Contractors who have carried out and completed the existing Earthwork, Substructure and Structure Works may be recalled to execute, maintenance or repair work during the construction of the works under this Contract. The Contractor shall give access and liaison with the previous Contractor and provide necessary attendance and assistance for purposes of executing such maintenance or repair works.</p> <p>No claims will be entertained in respect of any inconvenience, hindrance met by the contractor due to the presence of other contractors on site.</p> <p><u>POLLUTION, FLOODING, ETC.</u></p> <p>The Contractor shall be responsible for taking immediate steps to make good and shall bear on cost of remedying the effects of pollution, flooding and other nuisance caused by the commissioning of his works under this contract, to neighboring properties, roads, drains etc all to the satisfaction of Local Authorities and the Superintending Officer.</p> <p>The Contractor shall take measures as the Superintending Officer may require to prevent the entry of oil or other deleterious materials from the works into any new or existing drainage system or natural watercourse. Nevertheless, should any drainage system or watercourse be fouled by such material the Contractor shall clean the drainage or watercourse at his expense to the satisfaction of Superintending Officer.</p> <p><u>COPIES OF PRICES</u></p> <p>The Contractor shall permit the requisite number of copies of his prices, extension and cost to be made for the purpose of administrating this Contract.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>SUSPENSION OF WORK</u></p> <p>The Contractor shall on the written order of the Superintending Officer suspend the progress of the Works or any part thereof for such time or times and in such manner as the Superintending Officer may consider necessary for -</p> <ul style="list-style-type: none"> i) the proper execution of the Works or by reason of weather conditions affecting the safety or quality of the Works or by some default on the part of the Contractor. II) the safety of the Works or any part thereof <p>The Contractor shall, during such suspension properly protect and secure the work so far as it is necessary in the opinion of the Superintending Officer.</p> <p>No claim will be allowed for whatever extra cost incurred by the Contractor in giving effect to the Superintending Officer's instruction under this clause.</p> <p><u>SUBMISSION OF SAMPLE</u></p> <p>The Contractor is required to submit within 30 days samples of materials and manufacturer's brochures on the materials they propose to use to the Superintending Officer for approval.</p> <p>The Superintending Officer reserves the right to reject the samples and/or the finished installation on site, if in his opinion the material and installation on site do not conform to the approved/submitted samples, brochures and required method.</p> <p><u>INVOICES, RECEIPTS ETC.</u></p> <p>The Contractor shall at all times give every reasonable assistance to the Superintending Officer. When requested the Contractor shall produce for inspection/retention all time sheets, delivery notes, invoices, accounts, receipts, test certificates and such other vouchers and record as the Superintending Officer may require in connection with the Contract in the preparation of the Final Account</p> <p><u>SHOP DRAWINGS</u></p> <p>The Contractor shall provide and shall caused all Sub-contractors or Suppliers to provide the Superintending Officer with full, complete and sufficient Shop Drawings for any structural work, mechanical and power equipment, other services, pressed metalwork, aluminium and glazing works, waterproofing system etc. and all other specialized work and services as required in accordance with this Contract.</p> <p>Such drawings or details shall in the first instance be checked and verified by the Contractor before submitting to the Superintending Officer for approval</p> <p>The Contractor shall also submit shop drawings and details for all temporary works, system formwork etc. to the Superintending Officer before any erection of such temporary works.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>SHOP DRAWINGS (Cont'd)</u></p> <p>Such drawings shall be submitted in sample time for checking and for resubmission for any amendment described so as not in any way to jeopardise the time for completion of the Contract. No works shall be carried out until the Superintending Officer has approved the relevant shop drawings.</p> <p>It should be clearly understood that the approval of shop drawings by the Superintending Officer is solely approval of subject matters in principle and does not constitute checking of detail dimensions or acceptance of auxiliary units or materials unless specifically mentioned in writing by the Superintending Officer. The Contractor shall prepare all co-ordinate shop drawings for Superintending Officer's approval.</p> <p>a. <u>AS BUILT DRAWINGS, OPERATING AND MAINTENANCE INSTRUCTION</u></p> <p>The Contractor and his Nominated Sub-Contractors shall prepare, agree and supply the Superintending Officer drawing as specified for recording 'As Built' all works and services installed or complete and their locations. The Contractor shall supply the original together with four (4) sets of all as-built drawings.</p> <p>Obtain and handover to the Superintending Officer upon completion of two (2) copies of the following : -</p> <ul style="list-style-type: none"> i) Operating and maintenance instructions provided by the manufacturer's suppliers or sub-contractors. ii) List of spare parts and their respective suppliers. iii) List of consumables and their respective suppliers <p>All as built drawings and operating and maintenance instructions for the various mechanical and electrical services installed are to be submitted to the Superintending Officer within six (6) months before the completion or any extended time thereof.</p> <p>b. <u>ORDERING OF MATERIALS</u></p> <p>Place orders for specified materials and equipment at the earliest possible date. Produce on the Superintending Officer's request records confirming orders had been placed. Make every effort to ensure adequate supply of materials for each stage of the works</p> <p>Immediately inform the Superintending Officer on possible delays in delivery. The Contractor shall be responsible to seek alternative sources of supply where necessary.</p> <p>The Bills of Quantities are not to be used as the basis for ordering any materials.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>ORDERING OF MATERIALS</u> (Cont'd)</p> <p>If the Contractor fails for any reason to supply any material, which he had contracted to supply or if he fails to supply any such material in sufficient time to enable the contract to be completed by the agreed date for completion then in either event the Employer may supply any portion, or all of such material. If the Employer supplies such material the cost in respect thereof to be borne by the Contractor shall be</p> <p>EITHER the current market rates</p> <p>OR the actual cost to the Employer at the date of supply, including overhead and any other charges</p> <p>WHICHEVER IS THE GREATER</p> <p>The cost to be borne by the Contractor as above detailed shall be deducted from money due or to become due to the Contractor under this Contract and the Contract Sum shall be adjusted accordingly.</p> <p>In no consequences that premature materials delivered to site be included in the progress payment.</p> <p>In no way will the material ordered or supplied by the Employer relieve the Contractor of any of his duties or responsibilities under the Contract.</p> <p>a. <u>SUBSTITUTE MATERIALS</u></p> <p>If during the course of the Contract certain material required for use in the Works should be unobtainable despite the efforts of the Contractor, then he may offer substitute material for the approval of the Superintending Officer. These substitute materials although not complying fully with the specification must nevertheless be suitable and appropriate for use in the Works. Acceptance or rejection of such substitute material shall be at the discretion of the Superintending Officer.</p> <p>In the event of acceptance of the substitute material a suitable price reduction shall be made in respect of decrease in quality or value, but no price addition shall be made in respect of increase in quality or value. In the event of rejection of the substitute material the Contractor shall not be relieved of any of his obligations under this contract and he shall be solely liable for any delay or loss occasioned by his failure to provide material as specified.</p> <p>b. <u>AVOIDING NUISANCE</u></p> <p>The Contractor shall carry out the works in such manner so as to cause as little inconvenience of noise nuisance to persons living in neighboring properties and to the public.</p> <p>He shall not obstruct, as far as possible, the normal rights of way of the user of the public roads and where this is necessary and unavoidable. He shall provide barriers, road signs, warning lights, etc required for proper traffic control including getting the necessary permits from the Police Department and other Local Authorities and paying all fees in connection therewith.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>AVOIDING NUISANCE</u> (Cont'd)</p> <p>He shall be liable for and shall indemnify the Employer in respect of any claims or proceedings arising out of his neglect in taking care to avoid creating a nuisance when carrying out the works.</p> <p>a. <u>EXISTING OVERHEAD AND UNDERGROUND SERVICES CABLES, PIPES ETC</u></p> <p>Before commencing any excavation, etc, the Contractor shall enquire from the various authorities whether any underground pipes, cables, etc, are present on the site and if so, he shall make arrangement for the disconnection, removal and, if necessary for the reconnection of such services and pay all necessary fees in connection therewith.</p> <p>If during excavation, the Contractor come across any underground cables, etc. he shall stop work immediately and report to the Superintending Officer who shall give the necessary instructions to the Contractor who shall then arrange for the disconnection, etc as stated in the last paragraph. The Contractor shall be responsible for making good all damage to cables, etc and shall indemnify the Employer against any claim as a result of such damage.</p> <p>b. <u>PRESERVATION OF EARTH SLOPES</u></p> <p>The Contractor shall take all necessary precaution to preserve all earth slopes, both existing i.e slopes already existing on the site at the time of the site being handed over to the Contractor and new i.e slopes formed and constructed by the Contractor under the Contract. He shall construct adequate temporary water courses and drains and take other necessary steps to prevent slips from occurring.</p> <p>Should slips occur due to the Contractor's neglect to preserve the earth slopes, he shall, at his own expenses, make good such slips to the entire satisfaction of the Superintending Officer.</p> <p>The Contractor shall make daily inspection of the earth slopes and more often if he deems it necessary or if so instructed by the Superintending Officer. He shall record the results of his inspections in the Site Book. In the event if slips occurring or in the opinion of the Contractor may possibly occur, the Contractor shall immediately report to the Superintending Officer who shall give the necessary instructions to the Contractor.</p> <p>The Contractor shall be held solely responsible for the sufficiency the precautions taken by him to preserve the earth slopes and shall be liable for and shall indemnify the Employer in respect of any claims or proceedings arising out of his neglect of this Clause.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>SAFETY MEASURES</u></p> <p>Allow for complying with Acts of Parliament, Statutory Regulations, etc relating to safety of persons on or about the site.</p> <p>The Contractor is responsible for the adequacy of safety provisions including safety nettings/screens, etc. throughout the contract period of the approval of the Superintending Officer. The Superintending Officer approval of any safety measures shall not relieve the Contractor from this responsibility. Ensure that all tools, tackle, gear, staging, scaffolding, ladders, equipment, etc used in connection with works are adequate and safe for use.</p> <p>The Contractor's responsibility and liabilities whether under the foregoing or any other provision of the Contract, shall not in any way be neglected, reduced or limited by reason of any instruction, variation order, approval advice given by the Superintending Officer or by any Public or other Authorities.</p> <p><u>MAINTENANCE OF PUBLIC AND PRIVATE ROADS AND FOOTPATHS ETC.</u></p> <p>Maintain public and private roads, footpaths, kerbs, drain etc and keep the approaches to the site clear of mud earth etc. The Contractor shall make good any damage caused by his own or any Sub-Contractor's or Suppliers' transport and plants at his own expense and keep the Employer indemnified against all losses, costs, damages, expenses, claims and demands incurred or sustained in the event of such occurrences, the Contractor shall carry out the cleaning work immediately, within twenty-four (24) hours upon receiving instruction from the Superintending Officer, failure of which the employer have the right to employ others to carry out the work without any further notice to the Contractor and the cost incurred will be deducted from the Contract Sum.</p> <p>Notwithstanding leaving the site with are found to be dirtied with mud shall be hosed down with water to ensure that they are clean before leaving the site. Provide all accessories for cleaning as follows : -</p> <p>a) 1 nos - High Pressure Water Jet Pump complete with nozzle b) 2 nos - Water tank 200Gal c) power supply d) maintenance for the above equipment</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>PLANT AND MACHINERY</u></p> <p>The Contractor shall provide all necessary temporary plant and machineries to ensure smooth running of the job and to achieve the accepted date of completion, maintain them during the currency of the Contract and remove at completion of the works.</p> <p>Particular attention is to be given to the use of proper and modern plant and other labour and time saving devices to ensure that the work will be carried out expeditiously.</p> <p>The Contractor shall from time to time during the construction stage, provide the Superintending Officer with up-to-date list of all the mechanical plant on site such lists is to be signed and date. Unserviceable plant shall be removed expeditiously from the site.</p>	
b.	<p><u>WATER</u></p> <p>The Contractor shall provide at his own risk and cost including temporary plumbing and for storage all water required for use in the Works and shall pay all costs and fees in connection therewith. All water shall be fresh, clean and pure. On completion, clear away all plumbing and water tank, etc.</p>	
c.	<p><u>PROTECTING THE WORKS</u></p> <p>The Contractor is to cover up, protect the Works from the weather, and suspend all operations during the weather conditions, which in the Superintending Officer's opinion, will detrimental to the Works. The Contractor shall be responsible for protecting the whole of the works including those of Sub-Contractor until they are handed over to the Employer.</p> <p>The Contractor shall take necessary measures to safeguard the works, materials and plant against damage and theft and shall indemnify the Employer against any loss, theft or damage.</p>	
d.	<p><u>WORKING HOURS</u></p> <p>All working hours are to be in accordance with the regulations of the relevant authorities. Unless permission of the Superintending Officer is given, no work shall be done outside the normal working hours.</p> <p>The normal working hours of the Resident Engineer/Resident Superintending Officer and the Resident Supervisory Staff are as follows : -</p> <ul style="list-style-type: none"> i) Sunday to Thursday - 8.00 am - 5.00 pm (with 1 hour break lunch) ii) Saturday - 8.00 am - 1.00 pm <p>Fridays and Public Holidays are not working days. If the Contractor's work requires the supervision of the Resident Engineer/Resident Superintending Officer and/or the Resident Supervisory Staff outside the normal working hours then the Contractor shall reimburse all overtime supervision cost incurred by the Employer due to such working outside normal working hours. Payment for overtime supervision cost shall be made monthly through the Employer and/or the respective Consultants</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>WORKING HOURS (Cont'd)</u></p> <p>If the Superintending Officer shall so permit the Contractor to work before or after the hours stated, no claim for overtime will be incurred.</p> <p>The Contractor shall pay all expenses for the Employer's Supervisory staff required to be present during the approved overtime works.</p> <p>If the Superintending Officer is in an opinion that the progress of the work is behind schedule, the Superintending Officer shall have the right to instruct the Contractor to increase his plant and labour force and/or to continue work beyond normal working hours, including night work or to mitigate delays to his satisfaction. The Contractor shall bear the extra cost for complying with the Superintending Officer instruction to perform such work necessary to adhere to the agreed Work Program. No claim for extra payment for additional Labour or for working beyond normal working hours will be entertained.</p> <p>a. <u>SITE MANAGEMENT AND SUPERVISION</u></p> <p>Provide for all on-and off-site management and supervision including Site Agent and all necessary clerical and supporting personnel.</p> <p>Submit within two (2) weeks of the notification of acceptance of tender a list of site management personnel together with their resume who will be directly involved and responsible for this project. The site management personnel shall not be changed without prior approval from the Superintending Officer</p> <p>The organization chart together with CV of the company's supervisors who will be employed for the project must be forwarded to the Employer for agreement prior to acceptance of any contract.</p> <p>Once agreed upon, these numbers of staff are to be maintained throughout the duration of the project. Should any of the staff be taken out from the project or resign, the equivalent experienced staff must be replaced within a month. If the contractor fails to replace this staff, the Employer is at liberty to source for a similar experienced staff or allow consultant to appoint a similar experienced staff to take over. The cost of this replacement shall be at the Contractor's expense.</p> <p>b. <u>WORK PROGRAMME</u></p> <p>Within two (2) weeks of the award of the contract, the Contractor shall submit as soon as possible, copies of an approved work programme to all the consultants, clearly setting out the proposed commencing and completion dates of the various operations, construction method based on four (4) phases as per S.O approval, trades and Sub-Contractors works as related to the completion time of the whole of the Contract.</p> <p>A current copy of the work programme shall be available at the site office at all times for inspection by all persons concerned with the work.</p> <p>The work programme shall be in the form of a critical path for the analysis accompanied by all the necessary schedules and shall show the programmed dates for the commencement and completion on stage-by-stage basis of the work in sequence. The Contractor shall also present a summary of the Work programme in the form of bar chart for reporting purposes.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>WORK PROGRAMME</u> (Cont'd)</p> <p>The work programme schedule shall incorporated all activities for the execution of the works including all works of domestic and nominated subcontractor, specialist contractors, artists or tradesmen employed by the employer. The work programme shall also incorporate activities for completion of designated area in advance of others i.e mock up unit area to be handed over to the nominated sub-contractor etc.</p> <p>The work programme shall be sufficient detailed to permit week-by-week precise comparison between the work/time as programmed and the actual progress of work/time and shall show practical completion by the due date or earlier.</p> <p>The Contractor shall increase his work force and plant as and when required by the Superintending Officer in order to adhere to the work programme.</p> <p>The Superintending Officer shall have the right to instruct the Contractor to continue work beyond normal working hours, including night work in order to maintain the progress of the work to his satisfaction. The Contractor is to allow here for the extra costs (which shall include all additional expenses connected with the Consultant's supervisions of the Works) for complying with the Superintending Officer's instruction to perform such work necessary to adhere to the agreed work programme as no claim for extra payment for additional labour or for working beyond normal working hours will be entertained. In no case shall any night work be allowed without the written permission of the Superintending Officer.</p> <p>Notwithstanding the submission and approval of the time schedule. The Contractor is in no way relieved from his responsibility to complete the works by the Date of completion or within any extension of time granted in accordance with the condition of Contract. The Contractor shall remain fully responsible and liable to the Employer with regard to his time performance.</p> <p>a. <u>FIRST AID KITS</u></p> <p>The Contractor shall provide first aid kits at suitable location on the site and at the site office and shall be adequate to facilities the number of person on site.</p> <p>b. <u>WATCHING AND SECURITY</u></p> <p>Provide two (2) person for the employment of efficient watchmen of services of a security patrol group as may considered reasonable or necessary on the works by day and night and provide all necessary lighting, warning lamps, guard, barriers and all safeguards for the prevention of fire, accidents and losses for the whole period of works in hand.</p> <p>The Contractor shall solely be held responsible for the safety from damage or theft of all fixed and unfixed materials, goods, etc. delivered and stored on the site. However, the Contractor shall not be responsible for Nominated Sub-Contractors' plant, tool, equipment and the like.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>TEMPORARY LIGHTING AND POWER</u></p> <p>The Contractor shall provide and maintain adequate temporary lighting and electric power for the execution of the works.</p> <p>The temporary electrical supply shall be in accordance with the requirements of the Tenaga Nasional Berhad (TNB), from whom approval is to be sought. The supply shall have <u>sufficient capacity</u> to meet the power requirements of the whole of the works including testing of mechanical and electrical installations included in the works.</p> <p>The Contractor shall also provide adequate Generator Sets to meet any emergency circumstances such as failure in power supply and the like. The installation and operating of generator sets shall be subject to the approval of TNB and Chief Electrical Inspectorate of Malaysia.</p> <p>The temporary lighting shall be at a reasonable level of illumination at all areas where works are being executed and at all routes and passages leading thereto so as to provide safe and convenient access for Supervisory Personnel in the pursuit of their duties.</p> <p>The Contractor shall pay for all charges and fees in connection with this provision and clear away on completion.</p>	
b.	<p><u>WARNING SIGNS AND LAMPS</u></p> <p>Provide all necessary warning signs and lamps for the whole period the Works in hand and dismantle and remove on completion.</p>	
c,	<p><u>LOADING IN EXCESS OF DESIGN LOAD</u></p> <p>No loading in excess of the design loading shall be placed on any portion of the structure without the written permission of the Superintending Officer. If such permission is granted, all structural members subjected to loading other than the design loading shall be strengthened and supported to the satisfaction of the Superintending Officer and the Contractor will bear all additional expenditure.</p> <p>Notwithstanding the written permission of the Superintending Officer the Contractor shall bear all costs arising out of the making good of any damage to the permanent structure caused by excess loading.</p>	
d.	<p><u>TEMPORARY WORKS</u></p> <p><u>Contractor's Storage Welfare And Site Accommodation</u></p> <p>The Contractor shall erect and maintain on the site in areas designated by the S.O.; adequate, secure and watertight temporary buildings for use during the entire duration of the Contract. All temporary buildings shall be constructed and maintained according to the requirements of Local and other Authorities and the Contractor is to pay all charges in connection therewith : -</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
d.	<p><u>TEMPORARY WORKS</u> (Cont'd)</p> <p><u>Contractor's Storage Welfare And Site Accommodation (Cont'd)</u></p> <ul style="list-style-type: none"> i) Construct and maintain temporary office and store for the Contractor's site staff and proper watertight sheds for the storage of materials, plants, tools and tackle and for the use of workmen on site. Cement stores shall have floor raised at least 305mm above ground level. Alter, adapt and shift all temporary structures when necessary from time to time and remove same on completion. ii) Accommodation for workmen including Sub-Contractor's workmen is to be provided where required in the ratio of 9.29m² per man. Alter, adapt and shift all temporary structures when necessary from time to time and remove same on completion. iii) Provide and maintain 6 Nos. portable toilet (in the ratio of one bucket for every 20 men) together with all necessary water and drainage facilities, in accordance with Local Authorities' requirements and pay all costs and charges in connection therewith. Keep clean, deodorise and alter, adapt and shift when necessary from time to time and remove same on completion <p>All areas outside the site shall be out of bound to all workmen. Any workmen found in out of bound areas shall be dealt with by the proper Authorities and shall be removed from the site.</p> <p>On completion of the Works and within one (1) week of the S.O. so instructing, reinstate all areas disturbed to its original position after removal of temporary buildings.</p> <p>If upon instruction by the S.O. that the temporary buildings cannot be dealt within the project site, the Contractor shall allow herein and pay all deposit, rentals, monthly charges and other expenses in connection therewith to have to construct the temporary buildings outside the project site for the duration of the Contract and remove on completion of the work.</p> <p>On completion of this Contract, unless otherwise stated, the site office with all furnitures and fittings shall become the property of the Contractor and shall be removed from the site.</p> <p><u>Office For S.O</u></p> <p>The Contractor shall provide of a new temporary site office for the sole use of Majlis Bandaraya Iskandar Puteri site supervisory staff. The office shall be completed with air-conditioning unit, light fittings and electrical installation, adequate furnitures and equipments for meeting room and site supervisory staff and assistants, magnetic white board, softboard, curtains, lockable filing cabinets, racks for drawings, metal cabinet, stationaries and etc. to the satisfaction of the S.O.. The S.O's Office shall be 2 units of 3000mm x 12000mm or other equal portable cabin complete with concrete slab hallway, metal deck roofing with trusses, steel column, perimeter drain and any other related works all as per Architect's detail drawing no. AICB-JB/22602/TD/722 and the Contractor is also to allow for meeting room for a minimum capacity of 20 persons.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)																														
d.	<p><u>TEMPORARY WORKS</u> (Cont'd)</p> <p><u>Toilet For Site Office</u></p> <p>The Contractor shall provide and maintain temporary 3 Nos. portable toilet complete with sanitary and plumbing installation, temporary septic tank, or other approved equivalent by the S.O (in the ratio of one bucket for every 20 men) all as per Architect's detail drawing no. AICB-JB/22602/TD/724 together with all necessary water and drainage facilities, in accordance with Local Authorities' requirements and pay all costs and charges in connection therewith. Keep clean, deodorise and alter, adapt and shift when necessary from time to time and remove same on completion.</p> <p><u>Bin House</u></p> <p>The Contractor shall provide and maintain temporary 1 No bin house overall size 2.40m x 2.40m x 2.70m high complete with light fittings and electrical installation, rubbish bin and etc. all as per Architect's detail drawing no. AICB-JB/22602/TD/725 together with all necessary water and drainage facilities, in accordance with Local Authorities' requirements and pay all costs and charges in connection therewith. Keep clean, deodorise and alter, adapt and shift when necessary from time to time and remove same on completion.</p> <p>Unless otherwise shown in the drawings, the office is to be sited, positioned and constructed as approved by the S.O.</p> <p>The Contractor shall make proper arrangements for and pay all charges in connection with conservancy. The site office shall comply with local building by-laws. It shall be erected or provided by the Contractor and approved by the S.O. within 4 weeks from the date of possession of the site, deodorise and keep clean, shift and adapt from time to time as necessary to S.O.'s requirements.</p> <p>On completion of the works, unless otherwise stated, the site office with all furnitures and fittings become the property of the Contractor and shall be remove from the site forthwith and the area where they stood reinstated to its original condition.</p> <p><u>Office Equipment And Facilities</u></p> <p>Provide new sets of the following equipment of a standard to be approved by the S.O: -</p> <p><u>Equipment Etc. For S.O.</u></p> <p>The Contractor shall provide the following items according to standard approve by the S.O. and must comply with OE and OSA requirement for the sole use of the S.O. and his repersentatives, all consultants and authorized visitors throughout the duration of the Contarct : -</p> <p>Cost of Projects between RM5 mil to RM20mil</p> <table> <tr> <td>1</td><td>Safety Boots</td><td>10 pairs</td></tr> <tr> <td>2</td><td>Safety Helmets</td><td>10 pairs</td></tr> <tr> <td>3</td><td>Full Body Harness (for working at hei</td><td>if required</td></tr> <tr> <td>4</td><td>Protective Gloves</td><td>if required</td></tr> <tr> <td>5</td><td>Safety Goggles</td><td>if required</td></tr> <tr> <td>6</td><td>Safety Jackets of Reflective Type</td><td>if required</td></tr> <tr> <td>7</td><td>Ear Plugs and Muffs</td><td>if required</td></tr> <tr> <td>8</td><td>Dust Masks</td><td>if required</td></tr> <tr> <td>9</td><td>Head Lamp</td><td>if required</td></tr> <tr> <td>10</td><td>other item if required</td><td></td></tr> </table> <p>Safety boot which consisit of 10 pairs of 'Red Wing' safety boots shoe, SIRIM and DOSH approved.</p> <p>*The Contractor shall provide necessary space/furniture for storage</p>	1	Safety Boots	10 pairs	2	Safety Helmets	10 pairs	3	Full Body Harness (for working at hei	if required	4	Protective Gloves	if required	5	Safety Goggles	if required	6	Safety Jackets of Reflective Type	if required	7	Ear Plugs and Muffs	if required	8	Dust Masks	if required	9	Head Lamp	if required	10	other item if required		
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ITEM	DESCRIPTION	AMOUNT (RM)
d.	<p><u>TEMPORARY WORKS</u> (Cont'd)</p> <p><u>Equipment Etc. For S.O.</u></p> <p>The Contractor shall provide for the sole use of the S.O. and his staff all such instruments, equipment and chainmen as may be required to check the accuracy of the setting out. The Contractor shall be responsible throughout the construction period of the Works for all such instruments, equipment and chainmen and shall ensure that all instruments and equipment at all times maintain in good working conditions.</p>	
e.	<p><u>CLOSED CIRCUIT TELEVISION (CCTV) - 4 NOS</u></p> <p>The contractor shall install, set up and configure the HD quality day and night closed circuit television (CCTV) in 4 nos at suitable location, preferably at four different corners, complete with 4 nos galvanised steel poles in 10m high with 24 hours records and surveillance complete with CCTV camera web base including screen monitor and recoder for monitoring from afar. It should be maintained throughout the duration of the Contract Period to monitoring site area, construction progress and prevent any losses or theft. The Contractor shall solely be held responsible for the safety from damage or theft of all fixed and unfixed materials, goods, etc. delivered and stored on the site.</p> <p>The HD quality day and night closed circuit television (CCTV) shall be install and maintained to the requirements and satisfaction of the Superintending Officer</p> <p>Cameras shall be strategically located throughout the premises (internal and external) to provide coverage which satisfy the intended security application. The locations are subjected to the approval and endorsement of the S.O., and shall be amended accordingly.</p> <p>The CCTV system shall be provided with enough storage capacity for 24 hours (continuous recording) full resolution recording of each camera at minimum 15 frames per second (fps). Recording shall generally be retained in storage for a minimum duration as shown below from the date of recording:</p> <ul style="list-style-type: none"> i) Ninety (90) days – Premises with very high national interest such as national border, main national entry/exit point, high profile ministry building etc ii) Sixty (60) days – Secured premises such as prison, detention centre etc. iii) Thirty (30) days – Any other premises. <p>The CCTV system shall be equipped with a backup power source to enable it to operate even when the main power supply is disconnected or interrupted</p> <p>The system shall be equipped with a video management system which is capable of providing full function of CCTV system technology. The picture shall be digitally recorded and able to be viewed in real-time. A suitable computer workstation shall be provide</p> <p>The Contractor shall provide times lapse short video in the form of 1 no of CD for at least 3 to 5 minutes along the completion of construction.</p> <p>On completion of the works, unless otherwise stated, the CCTV equipment with all accessories and fittings become the property of the Contractor and shall be remove from the site forthwith and the area where they stood reinstated to its original condition.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>TEMPORARY FENCING AND HOARDING</u></p> <p>The Contractor shall supply, erect, allow for moving and handling the hoarding due to construction method base on phase and maintain throughout the duration of the Contract Period a 2.4m high metal deck hoarding all along the perimeter of the site and complete with concrete footing, struts, post, ingress and egress gates including all necessary hinges, bolts, locks, etc and remove them on completion of the works. The metal deck hoarding shall be constructed of all as per Superintending Officer's detail as per Architect's detail drawing no. AICB-JB/22602/TD/720</p> <p>The hoarding shall be built and maintained to the requirements and satisfaction of the Superintending Officer and Local Authorities. The Contractor shall obtain all necessary permit and licenses. The Contractor shall also dismantle and re-erect the fencing and hoarding on new position and in association with staging as and when necessary as a result of the progress of the Works. The Contractor shall be responsible to get permit from local authority and pay all necessary fees.</p>	
b.	<p><u>SIGNBOARD</u></p> <p>The Contractor shall allow for the provision and maintenance of signboard overall size 3.05m x 5.84m high and 1.0m high from ground level as per Architect's detail drawing no. AICB-JB/22602/TD/721, design displaying the names of project, name and logo of Employer, the Consultants and the Contractor and approved by the Architect with the required wordings. He shall erect the signboard where directed and obtained all necessary licences and permit and pay all charges in connection therewith. All as per S.O Instructions and authorities requirement.</p>	
c.	<p><u>EMPLOYMENT OF FOREIGN WORKERS</u></p> <p>Every effort must be made by the Contractor to employ Malaysian citizen for the works. If foreign workers are to be employed the Contractor shall be responsible for their entry strictly in accordance with the requirements of the relevant immigration laws and regulations. He shall also be responsible for obtaining their work permits from the relevant authorities. The Employer/his agents absorbed themselves from all responsibilities pertaining this matter.</p>	
d.	<p><u>TESTING</u></p> <p>The Contractor shall at his own expense provide such instruments, apparatus machine, assistance and labour as are normally required or stipulated in this contract for examining, measuring and testing any work and the quality, weight or quantity of any materials used or to be used or workmanship attained or to be attained. Allow for materials or work samples to be submitted for testing.</p> <p>The Contractor shall provide and bear all the incurred cost for officer to visit the assembly / manufacturing plant as per request by the Clients.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>DEFERMENT OF INSTALLATION OF LOOSE OR DISMANTLE ITEMS</u></p> <p>As a precaution to prevent to incident of theft or damaged on loose or dismantle items such as valve, stop-cock or tap heads, manhole or drain covers, electrical main switch and fittings and other items of a like nature, the Main Contractor is required to defer the installation of the said loose or dismantle item until instructed so by the Superintending Officer during the Defect Liability Period (DLP). The Main Contractor is to provide the necessary workforce and other expense required for the fixing of all the said loose or dismantle items as and when required by the Superintending Officer during the Defect Liability Period. The Superintending Officer will issue instruction to the Main Contractor for the fixing of the above items only upon instruction form the respective purchaser of various unit of this scheme.</p> <p>This arrangement will operate until the end of the Defect Liability Period. At the end of the Defect Liability Period, the Contractor will install all the loose or dismantle items to all the remaining units that have not been sold or occupied by the purchasers.</p> <p><u>SUB-CONTRACTORS AND SUPPLIERS</u></p> <p>Ensure that all sub-contractors and suppliers (whether nominated or otherwise) and others responsible to contractor are fully aware of the Contract Conditions, and any amendments thereto.</p> <p>Take full responsibility for any damage or delay, which may be occasioned by specialist firm or firms employed on any part of the contract work. The Employer exempts himself from the consequences of anything that may be eventuating in connection with their employment. The Contractor to submit to the Superintending Officer in due course the name and address of the following Sub-Contractors/Suppliers for approval -</p> <ul style="list-style-type: none"> i) Internal electrical/telephone ii) Internal plumbing/sanitary iii) External water reticulation iv) External electrical/telephone v) External sewerage line vi) Other sub-contractors/suppliers <p>All such sub-contractors/supplier firms must be properly registered (locally) and licensed by the relevant Local Authority and approved by the Superintending Officer.</p> <p><u>RIGHT OF EMPLOYER TO PAY TO SUB-CONTRACTORS & SUPPLIERS</u></p> <p>It is hereby agreed that notwithstanding any provisions herein, the Employer reserve the right in his absolute discretion to make any payment/s directly to the Contractor's Suppliers and/or Sub-Contractor should, without any reasonable cause, the Contractor defaults in making any or all payment/s as agreed upon between the Contractor and the Suppliers and/or Sub-Contractors.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>RIGHT OF EMPLOYER TO PAY TO SUB-CONTRACTORS & SUPPLIERS (Cont'd)</u></p> <p>Upon receiving written notice from the Suppliers and/or Sub-Contractor that the Contractor has defaulted in making payments to them and upon the satisfaction of the Employer that the value of work carried out and/or the materials have been supplied as required certified in the Progress Payment Certificate and the Contractor has received payment/s for the said materials supplied and the work done, the Employer shall give fourteen (14) days notice to the Contractor requesting the Contractor to pay the amount/s due on the said materials and work done to the respective Suppliers and/or Sub-Contractors. Should the Contractor fail to make such payment/s within the fourteen (14) days period, the Employer may deduct directly from the monthly progress payment/s until all the payment/s due to the Suppliers and Sub-Contractors are settled, further, no cause of action shall accrue against the Employers by the Suppliers and/or Sub-Contractors unless it appears in writing to the contrary.</p> <p>a. <u>PROGRESS REPORTS</u></p> <p>The Contractor shall prepare and submit daily progress report for the works at monthly and weekly basis intervals. These reports shall be initialled by both the Contractor's representative and S.O. representative. The Contractor shall allow for making ten (10) copies of these report for distribution to all parties concerned. Monthly progress report indicating individual component progress made in the preceding fortnight. Such reports shall show cumulative progress towards scheduled completion, expressed as a percentage of all items shown in the approved works programme and shall also include a summary of the progress achieved through every phase of the Contract.</p> <p>The contractor shall also prepare and submit 4 copies videos and pictures in the form of CD's of drone shot 'bird view' for the works at every months.</p> <p>Reports shall relate to key date achievement and indicate the degree of criticality on each activity. Any delays or potential delays shall be clearly identified and a statement given as to the measures being taken or to be taken to maintain the key dates.</p> <p>The progress reports shall include projected work activities for at least two (2) weeks ahead of those being reported upon with data on labour strength and equipment to be employed. The forth-nightly progress report shall be in a format approved by the Superintending Officer.</p> <p>b. <u>PROGRESS RECORD</u></p> <p>The Contractor shall prepare and keep on site daily record of work progress for inspection by the consultants. These records shall include the following information: -</p> <ul style="list-style-type: none"> i) Progress of each section of works ii) Number of workmen employed classified as skilled under their respective trades. iii) Major materials delivered. iv) Type of plant employed. v) Weather conditions. vi) Details of site instruction initiated by the Consulta 	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>PROGRESS PHOTOGRAPHS</u></p> <p>The Contractor shall provide ten (10) sets of colored postcard size progress photographs of the proposed scheme of twelve different views of the whole works, on the first day of each month throughout the duration of the Contract or at such times as the Superintending Officer may direct. The Employer, Superintending Officer, Engineer and Quantity Surveyor shall be provided with a set each.</p>	
b.	<p><u>RECORD OF HIDDEN WORK</u></p> <p>Any work, which is not visible in the finished project and is subject to variations and in respect of which no drawings are issued shall not be covered up until a record of it, suitable for measuring purposes, has been taken and agreed between the Contractor and the Superintending Officer. Contractor has to give an advance notice (minimum 2 weeks) in respect of any work that must be inspected prior to covering up.</p> <p>Make accurate records of those parts of the Works, which will become hidden by further progress. Such records shall be checked and verified by the Resident Supervisory Staff while the work is still open for inspection. Do not cover up any work until inspected and records have been approved by the Superintending Officer and Quantity Surveyor.</p> <p>Records shall be entered by the Contractor on prints of drawings which will be made available to him free of cost for this purpose, amplified by him with supplementary dimension sketches and handed to the Superintending Officer as soon as practicable.</p>	
c.	<p><u>ANTIQUITIES</u></p> <p>All fossils, antiquities and other objects of interest of value, which may be found on the site or in excavation the same during the progress of the work, shall become the property of the Employer. The Contractor shall carefully take out and preserve all such objects and shall immediately or as soon as conveniently may be after the discovery of such articles deliver the same into the possession of the Superintending Officer or of the engineer uncleaned and as excavated.</p>	
d.	<p><u>MOSQUITO PREVENTION</u></p> <p>Allow for taking such precautions as may be deemed necessary or desirable by the Superintending Officer for the prevention of breeding of mosquitoes and pay all charges as may be required by Local Authority for anti-malaria and anti-dengue measured taken.</p>	
e.	<p><u>DUST PREVENTION</u></p> <p>The Contractor shall make adequate provision by spraying erecting screens or other suitable methods against any nuisance or damage by dust to all work under this Contract or to persons of properties in the vicinity and he will be held solely responsible for any complaints, damage or claims in this connection.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
a.	<p><u>FULL TIME SITE SAFETY SUPERVISOR</u></p> <p>The Contractor shall be responsible for providing a qualified and experienced Site Safety & Health Officer (SHO) and Site Safety & Health Supervisor (SSS) to provide all necessary supervisory over the whole site for the full duration of the contract and as long thereafter as the Superintending Officer may consider necessary for the proper fulfillment of the Contractor's obligations under the Contract. His duty also to submit periodical report to the Superintending Officer. The report shall be in accordance with the local authority requirements/guidelines He must be competent in English and/or Bahasa Malaysia. He shall be constantly on the work and shall devote his whole time to the supervisory of the same. Should the Superintending Officer find the safety supervisor unsuitable for any reason practicable after receiving such written notice from the Superintending Officer, he shall have the right to remove the safety officer from the site and shall thereafter employ another to the approval of the Superintending Officer.</p> <p>The Contractor shall prepare and submit to the S.O. ten (10) copies site safety and health plan (S-Plan) as per JKR requirement and it shall include among others:</p> <ul style="list-style-type: none"> i) Safety and Health Policy ii) Emergency Response Plan (ERP) iii) Chemical Safety Data Sheet (CSDS) <p>(Shall submit within Three (3) months after the receipt of Letter of Acceptance).</p> <p>The Contractor shall prepare and submit to the S.O. Ten (10) copies monthly safety & health report describing the occurrences of accidents, near misses, injuries and deaths and the action taken. The report may be incorporated in the Progress Report for the entire duration of the contract. It shall also include: -</p> <ul style="list-style-type: none"> i) Schedule of safety ii) Site safety & health iii) Safety & health iv) Safety & health inspections reports. <p><u>MECHANICAL & ELECTRICAL SERVICES COORDINATOR</u></p> <p>b. The Contractor shall be responsible for coordinating the implementation of all M&E works and related activities within the project scope. For this purpose the Contractor shall appoint 1 person of Engineer and 1 person of Clerk of Work (CoW) full time on site during the whole duration of the works. The M & E Services Coordinators must be a minimum Diploma holder in related engineering field with minimum five (5) years of working experience in building construction and related works and competent in conversing in both English and Bahasa Malaysia. The appointment shall be approved by the S.O.</p> <p>The Contractor shall ensure all M & E requirements are implemented in a timely manner and adequately integrated with all services involved such as architectural, structural and other related services.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>MECHANICAL & ELECTRICAL SERVICES COORDINATOR (Cont'd)</u></p> <p>The Contractor shall conduct regular coordination meetings among all sub contractors, nominated or otherwise, from related disciplines to evaluate and resolve all issues or problems regarding integration and coordination of all services</p> <p>a. <u>ADVERTISING</u></p> <p>The advertising rights covering the site are strictly reserved and the display other than approved signboard is prohibited.</p> <p>b. <u>STATEMENTS TO THE NEWSPAPER ETC</u></p> <p>No statement, photograph or information of any kind is to be given to the Newspaper, Trade journals etc. Whether for reward or not, unless prior consent of such statement photograph or information has been obtained from the Employer</p> <p>c. <u>OCCUPATIONAL SAFETY AND HEALTH ACT 1994 (ACT 514)</u></p> <p>The Contractor shall allow for the compliance with all relevant provisions of the Occupational Safety and Health Act 1994 (Act 514); in particular, the employment of a competent person (s) to act as a Safety and Health Committee pursuant to Section 29 and Section 30 of the Act.</p> <p>d. <u>SOP CONSTRUCTION SECTOR FOR COVID-19</u></p> <p>The Contractor shall comply to any regulation & guidelines established by the government, Malaysia National Security Council (NSC), Ministry of Health (MOH), CIDB, Local Authority regulation and etc agencies on the pandemic issue i.e movement control order (MCO).</p> <p>The Contractor shall allow cost, work programme and provide sufficient requirement to meet all relevant provisions of the SOP construction sector for COVID-19 of the above</p> <p>e. <u>PERFORMANCE BOND</u></p> <p>The Contractor shall, before commencement of the Works, provide a Performance Bond in the form of Bank Guarantee from a Bank approved by the Employer for a sum amounting to five percent (5%) of the Contract Amount for the due performance and fulfillment of the Contract in all its parts according to the true intent and meaning thereof. The terms of the Bond shall be subjected to the approval of the Employer.</p> <p>The Bank Guarantee shall be valid until three (3) months plus fourteen (14) days after the end of Defects Liability Period or the date of issuance of the Certificate of Completion of Making Good Defects whichever is the later and shall be extended accordingly should extension of time be granted or delay occurs in completion of the project.</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)						
	<p><u>PERFORMANCE BOND (Cont'd)</u></p> <p>The original copy of he Performance Bond shall be deposited with the Employer as a condition precedent to commencement of the works shall remain with the Employer until three (3) months plus fourteen (14) days after the end of Defects Liability Period or the date of issuance of the Certificate of Completion of Making Good Defects, whichever is the later.</p> <p>n the event of the Contractor's failure to perform the Contract due to bankruptcy or any other reason, the amount of the Performance Bond will be utilized to off-set any additional cost or expenditure in obtaining another Contractor to complete the works</p> <p>a. <u>STREET, DRAINAGE AND BUILDING ACT (AMENDMENT) 1994</u></p> <p>The Contractor shall allow for and shall comply with the entire requirement as set out in the Act. The Contractor and Site Supervisor equally responsible of their Building were to collapse and can be fine up to RM 500,000.00 or jailed 10 years or both.</p> <p>b. <u>OPEN BURNING</u></p> <p>Open burning activities on site are strictly prohibited and the Contractor shall be held solely responsible for the sufficiency of precaution taken by him according to DOE requirements and shall be liable for and shall indemnify the Employer in respect of any claims or proceedings arising out of his neglect of this clause.</p> <p>c. <u>CLEARING OF RUBBISH</u></p> <p>From time to time during currency of the Contract, the Contractor shall remove all rubbish, debris, surplus and useless materials from site as they accumulate and as directed by the Superintending Officer.</p> <p>d. <u>CLEARING OF SITE ON COMPLETION</u></p> <p>The Contractor shall on completion of the works, remove as quickly as possible and convey away from the site at his cost, all plant and surplus materials except those ordered to be left on the site, together with all rubbish and debris. All services and leads, temporary buildings, sheds, barriers, scaffolding, etc, required in the work of construction are to be disconnected, dismantled, taken down and removed.</p> <p>e. <u>MAINTENANCE GANG</u></p> <p>The Contractor shall provide 1 gang (1 gang = 3 handyman) for the period of three (3)months after the issuance of Certificate of Practical Completion by the S.O. for purpose of making good defects as and when required by the S.O. as follows;</p> <table><tr><td>Every project RM10m and below</td><td>1 gang</td></tr><tr><td>Project RM10m - RM20m</td><td>2 gangs</td></tr><tr><td>RM20m and above</td><td>3 gangs</td></tr></table>	Every project RM10m and below	1 gang	Project RM10m - RM20m	2 gangs	RM20m and above	3 gangs	
Every project RM10m and below	1 gang							
Project RM10m - RM20m	2 gangs							
RM20m and above	3 gangs							
	TO COLLECTION							

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>ON COMPLETION</u></p> <p><u>Clearing And Making Good On Completion</u></p> <p>On completion of the Works, and before the issue of the Certificate of Practical Completion of the Works, the Contractor shall be responsible for the final cleaning and commissioning of the Works and for leaving the site in a clean and tidy condition to the satisfaction of the S.O.. Such operation shall include, but not be limited to the following:-</p> <ul style="list-style-type: none"> i) Remove all rubbish, debris, etc from the buildings and the site, clear away and remove constructional plant and surplus materials, and leave the Works clean and tidy and ready for immediate occupation. ii) Remove any temporary markings, protective coverings, tapes, casings, still in position and clean exposed surfaces. iii) Clean all exposed concrete, brick, timber, pipe, steel and aluminium, etc. surfaces. <u>iv)</u> Leave all roofs and gutters watertight and clean. v) Wash, clean, dry and polish all floors (in addition to any previous polishing required by the Specification). vi) Ease all doors, windows, cupboard doors and drawers and leave them free to move. vii) Check, oil and adjust all ironmongery. Leave the Works secure with all accesses locked. Hand over all keys with identifying tags and identifying schedule to the S.O.. Retain duplicate schedule signed by the S.O. as receipt. <u>viii)</u> Cut out cracks in plaster, etc. and make good. ix) Clean and polish all glass, glazed tiles, stainless steel surfaces, all sanitary and kitchen wares, etc. x) Touch up all mirror faults in paint finishes or repaint badly marked areas back to suitable breaks. Remove all paint spots from floors, walls, hardware, glass, etc. <u>xi)</u> Ensure that all service and equipment are tested, commissioned and functioning efficiently and that all sanitary fittings are cleaned and sanitary and waste water pipes cleared of debris or blockage. xii) Road drains, walkways and sumps, etc. should be cleared of any obstructions and flushed out. xiii) Reinstate to original condition any area disturbed by sheds, materials, access roads, etc, not subsequently covered up by the Works. 	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>ON COMPLETION (Cont'd)</u></p> <p>Unless otherwise instructed by the S.O. in the event of the Contractor not clearing away the above mentioned materials and plant, temporary services and building or other than those which may be required as instructed, within the stipulated time, the Employer shall be empowered to perform such work, either employing a third party for such purpose or dealing with such direct and all the costs of such clearing away shall be deducted from the Contractor's Final Account.</p> <p>The Employer shall not be held responsible or liable for any material or plant left upon the site by the Contractor after the taking over of the site by the employer.</p> <p><u>As-Built Drawings</u></p> <p>On completion of the whole works under this Contract, the Contractor shall submit As-Built/Completed Drawings to the S.O. within three (3) months after the issuance of the Certificate of Practical Completion (C.P.C.) for approval. After the approval of the S.O., the Contractor shall submit that as-built drawings in the form of :-</p> <ul style="list-style-type: none"> i) Five (5) set reproducible transparent prints – loose copy. ii) Two (2) nos of Diskette/CD – digitized in Autocad Software. <p>The As-Built/Complete Drawings shall conform that the Works are wholly within the title boundaries such as :-</p> <ul style="list-style-type: none"> i) Architectural Landscape ii) Structural iii) Infrastructure works. iv) Mechanical & Electrical Works v) And all other related services. <p>The As-Built/Completed Drawings shall be prepared, endorsed and certified by a Licensed Professional Land Surveyor/Engineer/Architect and stamp as 'As-Built Drawing'.</p> <p>In the event the Contractor fails to submit the As-Built Drawings within three (3) months period, the S.O. shall appoint another party to undertake the above task and all cost incurred shall be deducted from the Contractor.</p> <p>a. <u>PERFORMANCE WARRANTY</u></p> <p>On any material or goods supplied under this Contract where a performance warranty (manufacturer's and workmanship warranty) or guarantee is given by the manufacturer, the Contractor shall secure such warranty or guarantee in favour of the employer.</p> <p>The items and period of warranty are as follows :-</p> <ul style="list-style-type: none"> i) Anti-termite treatment (3 years) ii) Waterproofing (5 years) iii) Painting works (5 years) iv) Metal Decking (10 years) v) Aluminium works (5 years) 	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
	<p><u>PERFORMANCE WARRANTY</u></p> <p>Such warranty or guarantee shall commence from the date of practical completion and provided jointly and severally by the Contractor and the relevant manufacturers. The warranty shall be in the format as enclosed in the Appendix of Tender Document.</p> <p>On any material or goods supplied under this Contract where the manufacturer gives a warranty or guarantee, the Contractor shall secure such warranty or guarantee in favor of the employer. Such warranty or guarantee shall be provided jointly and severally by the Contractor and the relevant manufacturers and in the form to be approved by the Employer.</p> <p>a. <u>OTHER ITEM OF EXPENDITURE</u></p> <p>The Contractor is to allow here for any other items of expenditure, which are not allowed for elsewhere such as Holidays with pay, Public Holidays with Pay, Employees Provident Fund Contributions, Travelling Time and Fares and any costs due to importing labour from other districts, etc.</p> <p>The Contractor is to allow herein or elsewhere in his prices for all other works, which he considers necessary for the successful completion and efficient operation of the works and which may not be specifically mentioned in these documents. The Contractor is to insert herein the detail breakdown of items :-</p> <p>i)</p> <p>ii)</p> <p>iii)</p> <p>iv)</p> <p>v)</p>	
	TO COLLECTION	

ITEM	DESCRIPTION	AMOUNT (RM)
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ITEM	DESCRIPTION	AMOUNT (RM)
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ITEM	DESCRIPTION	AMOUNT (RM)
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	<div> <div>BILL NO 1 - PRELIMINARIES & GENERALLY</div> <div>CARRIED TO FINAL SUMMARY</div> </div>	

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL</u> <u>Note :</u> All excavation are measured from platform level unless otherwise stated <u>Excavation commencing from formation level, get out, part return, fill in, ram deposit and spread in making up level where directed within the site, remainder load and cart away from site to Contractor's own dump</u>				
A	Pad footings not exceeding 2.00m depth	M3	128		
B	Ground beams exceeding 500mm but not exceeding 1.00m depth	M3	27		
C	Ground slabs exceeding 150mm but not exceeding 300mm thick	M3	68		
	<u>Bed of hardcore as described, spread and levelled, well rammed and consolidated, watered and blinded with fine sand, well rolled in and finished to :-</u>				
D	Average 200mm thick to receive pad footing (measured separately)	M2	102		
E	Average 150mm thick to receive ground slabs ditto	M2	272		
F	Ditto to receive ramp slabs ditto	M2	1		
	<u>Sand Blinding</u> <u>Sand blinding as described, spread and levelled, well rammed and consolidated, well rolled in and finished in :-</u>				
G	50mm thick under pad footing	M2	102		
	<u>Concrete Works</u> <u>Lean concrete Grade 15 blinding with surfaces finished level to receive concrete including where necessary trimming base of excavation</u>				
H	Concrete blinding under ground beam not exceeding 100mm thick	M2	45		
J	Ditto under ground slabs ditto	M2	272		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u>				
	<u>Concrete Works (Cont'd)</u>				
	<u>Lean concrete Grade 15 blinding with surfaces finished level to receive concrete including where necessary trimming base of excavation</u>				
A	Concrete blinding under ramp slabs not exceeding 100mm thick	M2	1		
	<u>Vibrated reinforced concrete Grade 40 as described in :-</u>				
B	Pad footings	M3	40		
	<u>Vibrated reinforced concrete compressive strength C32/40 as described:-</u>				
C	Column stumps	M3	6		
D	Ground beams	M3	22		
E	Ground slabs	M3	41		
F	Ramp Slab	M3	1		
	<u>Reinforcement</u>				
	<u>Mild steel bar reinforcement to concrete works generally, including all cutting, bending and placing in :-</u>				
G	<u>Ground Beams</u>				
	10mm Diameter as stirrups	KG	746		
	<u>Column Stumps</u>				
H	10mm Diameter as links	KG	335		
	<u>High Tensile bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
	<u>Pad Footings</u>				
J	12mm Diameter as straight and bend bars	KG	1,459		
K	16mm Diameter ditto	KG	1,467		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u>				
	<u>Reinforcement (Cont'd)</u>				
	<u>High Tensile bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
	<u>Column Stumps</u>				
A	12mm Diameter as straight and bend bars	KG	61		
B	16mm Diameter ditto	KG	548		
	<u>Ground Beams</u>				
C	12mm Diameter as straight and bend bars	KG	7		
D	16mm Diameter ditto	KG	1,247		
E	20mm Diameter ditto	KG	501		
F	25mm Diameter ditto	KG	285		
	<u>Ground Slabs</u>				
G	10mm Diameter as straight and bend bars	KG	3,598		
	<u>Ramp Slabs</u>				
H	10mm Diameter as starter bars	KG	16		
	<u>Formwork</u>				
	<u>Use and waste of sawn formwork as described :-</u>				
J	Sides of pad footings	M2	75		
K	Sides of column stumps	M2	44		
M	Sides of ground beams	M2	204		
N	Edges of ground slabs not exceeding 250mm high	M	157		
P	Edges of ramp slab ditto	M	4		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 3 - ROOF AND ROOF FINISHES</u></p> <p><u>Roof Covering</u></p> <p><u>Supply and install OSM Architectural Double-Skin Roof System with TwinZip 25 Standing Seam sheet minimum 0.53mm thick (TCT), metal deck roof with approved profile as OSM PRIME insulation achieving STC 45, Metaldek 24 Drill& Screw 0.47mm (TCT) and OSM Flashing &Capping with 0.47mm (TCT) fixed to structural purlins complete with and including with approved clips and all necessary fixing accessories all to the manufacturer's details</u> (measured nett -no allowance made for laps)</p> <p>A To minimum 10° degree pitch roof; generally</p> <p><u>Roof Insulation</u></p> <p>B One layer double sided aluminium foil sisalation of approved type laid over roof trusses (measured separately) well lapped at joints all in accordance to the manufacturer's instruction (measured nett no allowance made for laps)</p> <p>C 100mm thick approved rockwool or fiberglass wool insulation laid on and including one layer of approved chicken wire mesh to roof metal decking (measured nett - no allowance made for laps)</p> <p><u>Fascia Board</u></p> <p>D 200mm wide fascia board to match roofing profile or other approved equivalent complete with all necessary frame and support system including all necessary fixing accessories and jointing to the roof truss system (measured separately) all as approved by the S.O</p> <p><u>Painting</u></p> <p><u>Prepare and apply one coat of approved self-etching quick drying metallic primer, one undercoat and two coats of gloss/semi gloss enamel paint as described to general surfaces of galvanised ironworks:-</u></p> <p>E On general surfaces of fascia board</p>	M2	430		
		M2	430		
		M2	430		
		M	84		
		M	84		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 4 - STEEL STRUCTURE</u>				
	Supply and install the following in steel structure treated on exposed surfaces with layer of primer, iron oxide and final coat to be selected and approved by the Engineer's. The price shall also including all members welded together come with all necessary bolts, nuts, washers, base plates, stiffener plates, fin plates, 'L' angles sag rod with lock nuts and washer and other required connection and all necessary fixing and all associated works and including non-shrink cementitious grout complete with cutting, drilling, transportation, handling and hoisting to position, cementitious grout complete with cutting, drilling, prior to Engineer's approval and all as per detail drawings				
A	250mm x 250mm x 72kg/m UC as column	KG	2,202		
B	600mm x 300mm x 133kg/m UB as column	KG	11,657		
C	150mm x 150mm x 5mm x 22.70kg/m SHS as column	KG	173		
D	250mm x 175mm x 44kg/m UB (Horizontal) as beam	KG	2,138		
E	250mm x 175mm x 44kg/m UB (Vertical) as beam	KG	1,597		
F	100mm x 50mm x 5mm x 10.77kg/m RHS as beam	KG	1,387		
G	200mm x 100mm x 5mm x 22.70kg/m RHS as beam	KG	4,046		
H	600mm x 300mm x 133kg/m UB as beam	KG	11,133		
J	203mm x 74mm x 2mm x 5.90kg/m C channel purlin as roof structure	KG	2,235		
K	76.10mm x 2.50mm x 4.58kg/m Bracing CHS as roof structure	KG	418		
M	100mm x 75mm x 5mm x 12.80kg/m RHS as stair structure	KG	140		
N	200mm x 150mm x 6mm x 31.60kg/m RHS as stair structure	KG	302		
P	4.5mm thick Chequered plate as tread	M2	8		
Q	4.5mm thick Chequered plate as riser	M2	5		
R	4.5mm thick Chequered plate as landing slab	M2	5		
S	4.5mm thick Chequered plate as upper floor slab	M2	111		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 7 - INTERNAL FLOOR FINISHES</u>				
	<u>Cement and sand (1:3) screed including approved adhesive as described :-</u>				
A	20mm Thick to floor slabs	M2	53		
B	18mm Thick to 50mm high drop	M	2		
C	18mm Thick to 150mm high skirting	M	53		
	<u>Approved coloured cement and sand (1:3) render with hardener trowelled smooth and well brushed as specified :-</u>				
D	25mm Thick to floor slabs - Ruang Serbaguna	M2	38		
	<u>Cement and sand (1:3) paving trowelled smooth and well brushed as specified to receive timber strip:-</u>				
E	15mm Thick to floor slabs	M2	21		
	<u>Approved selected homogenous tiles laid in pattern, bedded, jointed and pointed in matching coloured cement as described on cement and sand screed (measured separately)</u>				
	<u>600mm x 300mm homogenous tiles</u>				
F	To floor slabs	M2	9		
G	To 50mm high drop	M	2		
H	To 150mm high skirting	M	53		
J	<u>To floor slabs (Decorative)</u> Surau	M2	4		
	<u>Vinyl flooring</u>				
	<u>Supply and install approved 300mm long x 50mm wide x 10mm thick Grade 'A' timber strip flooring including approved underlay and all necessary fixing accessories complete with and including approved coloured stain finish with clear coating all in strict accordance to manufacturer's instruction</u>				
K	To floor slabs - Surau	M2	21		
M	To 100mm x 20mm thick timber skirting	M	21		
N	300mm x 1350mm selected decorative stainless steel grill	NO	2		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 9 - EXTERNAL WALLS</u>				
	<u>Concrete Copping</u>				
	<u>Reinforced vibrated precast concrete Grade 30 as described including all moulds, hoisting and setting in cement mortar (1:3)</u>				
A	150mm x 100mm thick precast concrete coping to wall complete with all necessary reinforcement and formwork	M	3		
	<u>Brickworks</u>				
	<u>Common clay bricks in cement mortar (1:3) with plasticiser as described reinforced with and including approved steel fabric reinforcement as described at every fourth course, well lapped and including 6mm diameter mild steel bonding ties as described 450mm girth one end cast into concrete and another end fixed into brickwall</u>				
B	115mm thick to wall (Surau)	M2	67		
C	115mm thick to wall (Pantri) -----	M2	39		
D	115mm wide bituminous sheet damp proof course as described (measured nett-no allowance made for laps) to half brick walls (Surau)	M	24		
E	115mm wide bituminous sheet damp proof course as described (measured nett-no allowance made for laps) to half brick walls (Pantri)	M	13		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 12 - WINDOWS</u></p> <p>Note :-</p> <p>The quantity given herein are not to be used as the basic for ordering the window and fixed panel units, the contractor shall prior to placement of his order, verify from the drawing and physical work on the site and subsequently confirm with the S.O, the numbers and exact size of window and fixed panel unit show in his Bill and shall allow herein the extra costs incurred or savings accrued for any minor difference in size and adjustment necessary for the window and fixed panel units.</p> <p>Rate for aluminium works are to include everything necessary whether described herein or otherwise, for the complete installation of each unit in accordance with the specification, contract drawings and the approved shop drawings.</p> <p>The word 'frames' in the description herein after shall be deemed to included heads, jamb. Cills mullions, etc to window and fixed panel unit.</p> <p>The tenderer must ascertain the actual panel sizes of glass required and allow in the rates of each aluminium units the extra costs or saving of glass over the quantities given resulting from usage of smaller or larger frame extrusions, or different method of glazing.</p> <p><u>Lintol</u></p> <p><u>Precast concrete (Grade 20) as specified lintol including 4 Nos of 10mm Diameter mild steel bar hooked at both ends and 8mm diameter mild steel bar as stirrups at 200mm centres including all necessary formwork</u></p>				
A	125mm Wide x 150mm Thick	M	22		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 11 - WINDOWS (CONT'D)</u> <u>Aluminium and Glazing Works</u> <u>Supply and install minimum 1.0mm Thick powder coated aluminium frame glass windows, fixed glass panels with glass adjustable louvres complete with frames, coupling, transomes, mullions, fixing screws, ironmongery, glazing beads, covered all surface with hot dip galvanised and all other fittings and accessories including approved 6mm Thick tinted float glass and fixing complete all in accordance to manufacturer's instructions and S.O approval : -</u> <u>Fixed & Casement Glass Window</u>				
A	Overall size 2550mm x 2100mm high (W1) comprising of 4 nos 525mm x 855mm high fixed window above, 4 nos 525mm x 840mm high casement window and 4 nos 525mm x 840mm high fixed glass window below <u>Top Hung Window</u>	NO	4		
B	Overall size 600mm x 2100mm high (W2) comprising of 4 nos 525mm x 600mm high top hung window	NO	3		
C	Overall size 1200mm x 600mm high (W3) comprising of 2 nos 600mm x 600mm high top hung window <u>Fixed Glass Window</u>	NO	1		
D	Overall size 1900mm x 2400mm high (W4)	NO	1		
E	Overall size 1200mm x 2400mm high (W4a)	NO	1		
F	Overall size 6100mm x 2400mm high (W4b) <u>Miscellaneous</u>	NO	1		
G	50mm x 35mm MDF window seal	M	12		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 14 - SANITARY WARES & FITTINGS</u></p> <p><u>Supply and fix the following sanitary wares or other approved equivalent complete with fittings and accessories including assembling and jointing to supply, waste and overflow pipes where necessary, complete with all approved mounting, screws, sealant, jointing materials and making good all works disturbed all as per manufacturer's instruction and Architect's approval :-</u></p> <p><u>Pantry</u></p> <p>A Stainless steel double bowl single drainer kitchen sink overall size 1200mm x 500mm x 180mm high complete with plastic bottle trap</p> <p>B Pillar mounted kitchen sink tap with quarter turn headwork</p> <p>C 150mm x150mm Stainless Steel floor trap</p> <p><u>Ablution</u></p> <p>D Ablution tap with single lever 1/2 bib tap with flange</p> <p>E 150mm x150mm stainless steel floor trap</p> <p><u>Testing</u></p> <p>F On completion of the sanitary and plumbing installation, test all apparatus, piping and fittings and make good any defects and leave the whole in perfect working order to the satisfaction of the Architect</p>	NO	1		
		NO	1		
		NO	1		
		NO	4		
		NO	2		
		ITEM			
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT 15 - PAINTING AND DECORATION</u> <u>WALL AND CEILING</u> <u>External</u> <u>Prepare and apply one sealer coat of alkali-resisting primer and two coats of approved weather shield paint complying to the manufacturers details, externally on surfaces of :-</u> A Plastered wall and column M2 106 <u>Internal</u> <u>Prepare and apply one sealer coat of alkali-resisting primer and two coats of emulsion paint internally on surfaces of :-</u> B Plastered wall and column M2 158 C General surface of ceilings M2 40				
	TO SUMMARY				

ITEM	ELEMENT	FROM PAGE	AMOUNT (RM)
	SUMMARY		
1	WORK BELOW LOWEST FLOOR LEVEL	B2.1/1/5	
2	FRAME	B2.1/2/1	
3	ROOF AND ROOF FINISHES	B2.1/3/1	
4	STEEL STRUCTURE	B2.1/4/1	
5	INTERNAL WALL AND PARTITIONS	B2.1/5/1	
6	INTERNAL WALL FINISHES	B2.1/6/1	
7	INTERNAL FLOOR FINISHES	B2.1/7/3	
8	INTERNAL CEILING FINISHES	B2.1/8/1	
9	EXTERNAL WALL	B2.1/9/1	
10	EXTERNAL FINISHES	B2.1/10/1	
11	DOOR	B2.1/11/3	
12	WINDOWS	B2.1/12/3	
13	STEPS, STEPS FINISHES AND BALUSTRADING	B2.1/13/1	
14	SANITARY WARES & FITTINGS	B2.1/14/1	
15	PAINTING AND DECORATION	B2.1/15/1	
16	CABIN	B2.1/16/1	
17	SUNDRIES	B2.1/17/1	
	TOTAL CARRIED TO GENERAL SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL</u></p> <p><u>Note :</u></p> <p>All excavation are measured from platform level unless otherwise stated</p> <p><u>Excavation commencing from formation level, get out, part return, fill in, ram deposit and spread in making up level where directed within the site, remainder load and cart away from site to Contractor's own dump</u></p>				
A	Pad footings not exceeding 2.00m depth	M3	79		
B	Ground beams exceeding 500mm but not exceeding 1.00m depth	M3	13		
C	Ground slabs exceeding 150mm but not exceeding 300mm thick	M3	21		
D	Ditto to receive apron slabs ditto	M3	3		
	<p><u>Concrete Works</u></p> <p><u>Lean concrete Grade 15 blinding with surfaces finished level to receive concrete including where necessary trimming base of excavation</u></p>				
E	Concrete blinding under pad footing not exceeding 100mm thick	M2	66		
F	Concrete blinding under ground beams not exceeding 100mm thick	M2	24		
G	Concrete blinding under ground slabs not exceeding 100mm thick	M2	105		
H	Concrete blinding under apron slabs not exceeding 100mm thick	M2	13		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u>				
	<u>Concrete Works (Cont'd)</u>				
	<u>Vibrated reinforced concrete Grade 40 as described in :-</u>				
A	Pad footings	M3	28		
	<u>Vibrated reinforced concrete compressive strength C32/40 as described in :-</u>				
B	Column stumps	M3	2		
C	Ground beams	M3	12		
D	Ground slabs not exceeding 150mm	M3	16		
E	Apron slabs not exceeding 150mm thick	M3	2		
	<u>Reinforcement</u>				
	<u>Mild steel bar reinforcement to concrete works generally, including all cutting, bending and placing in :-</u>				
	<u>Ground Beams</u>				
F	10mm Diameter as stirrups	KG	387		
	<u>Column Stumps</u>				
G	10mm Diameter as links	KG	50		
	<u>High Tensile bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
	<u>Pad Footings</u>				
H	12mm Diameter as binder, straight and bend bars	KG	751		
J	16mm Diameter as binder, straight and bend bars	KG	1,294		
	<u>Column Stumps</u>				
K	16mm Diameter as straight and bend bars	KG	102		
L	20mm Diameter ditto	KG	117		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 2 - FRAME</u>				
	<u>Concrete Works</u>				
	<u>Vibrated reinforced concrete compressive strength C32/40 as described in :-</u>				
A	Columns	M3	7		
B	Stiffeners	M3	2		
C	Roof Beams	M3	7		
	<u>Reinforcement</u>				
	<u>Mild steel bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
D	10mm Diameter as links in Column	KG	725		
E	6mm Diameter as links in Stiffeners	KG	66		
F	10mm Diameter as stirrups in Roof Beam	KG	225		
	<u>High Tensile bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
	<u>Columns</u>				
G	16mm Diameter ditto	KG	679		
H	20mm Diameter ditto	KG	545		
	<u>Stiffener</u>				
J	12mm Diameter as straight and bend bars	KG	245		
	<u>Roof Beams</u>				
K	16mm Diameter ditto	KG	171		
L	20mm Diameter ditto	KG	320		
M	25mm Diameter ditto	KG	60		
	<u>Sawn formwork as described to :-</u>				
N	Sides of columns	M2	84		
P	Sides of stiffeners	M2	37		
Q	Sides and soffit of roof beams	M2	69		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 6 - DOORS</u></p> <p>Precast concrete (Grade 20) as specified linto including 4 Nos of 10mm Diameter mild steel rods hooked at both ends and 8mm diameter mild steel rod as stirrups at 200mm centres including all necessary formwork</p>				
A	<p>125mm Wide x 150mm Thick</p> <p><u>METAL DOOR FRAME</u></p> <p>Supply, deliver and fix into position of approved 1.10mm Thick G.I metal door frame complete with and including all necessary bedding, fixing anchors and fixing accessories all in accordance to the manufacturer's instruction and Architect's approval (hinges measured seperately):-</p>	M	19		
B	<p>Overall size 1500mm x 2100mm high (Type D3)</p> <p><u>MILD STEEL DOOR FRAME</u></p> <p>Supply, deliver and fix into position of approved 1.10mm Thick mild steel door frame complete with and including all necessary bedding, fixing anchors and fixing accessories all in accordance to the manufacturer's instruction and Architect's approval (hinges measured seperately):-</p>	NO	1		
C	<p>Overall size 900mm x 2100mm high (Type D1)</p> <p>Supply, deliver and fix into position of approved 1.10mm Thick mild steel door frame complete with SUS hairline finish and including all necessary bedding, fixing anchors and fixing accessories all in accordance to the manufacturer's instruction and Architect's approval (hinges measured seperately):-</p>	NO	4		
D	<p>Overall size 1200mm x 2100mm high (Type D5)</p>	NO	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 6 - DOORS (Cont'd)</u>				
	<u>CARPENTRY AND JOINERY</u>				
	<u>Wrot pressure treated timber Grade B as described</u>				
	<u>Timber Flush Door</u>				
A	Single leaf timber flush door overall size 900mm x 2100mm high (Type D1)	NO	4		
	<u>Plywood Flush Door</u>				
B	Double leaf timber flush door include with stainless steel louvres overall size 1500mm x 2100mm high (Type D3)	NO	1		
	<u>Sliding Door</u>				
C	Single leaf phenolic laminate sliding door overall size 1200mm x 2100mm high complete with all ironmongeries, all necessary accessories, all as per manufacturer's detail and architect's approval. (Type D5)	NO	1		
	<u>Ironmongeries</u>				
	<u>Supply and fix the following ironmongeries of the type specified or other equal and approved to timber door including all necessary matching screws and all necessary rebated parts to suit mortice lockset all as per manufacturer's instruction and Architec's approval</u>				
D	102mm x 76mm x 2.5mm thick stainless steel hinges complete with stainless steel screw	NO	15		
E	Entrance Cylindrical knobset	NO	5		
F	Stainless steel hat & coat	NO	2		
G	Stainless steel door stoper	NO	6		
H	Master Key	ITEM			
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
A	<p><u>ELEMENT NO. 7 - WINDOWS</u></p> <p><u>Precast Concrete</u></p> <p>Precast concrete (Grade 20) as specified lintol including 4 Nos of 10mm Diameter mild steel rods hooked at both ends and 8mm diameter mild steel rod as stirrups at 200mm centres including all necessary formwork</p> <p>125mm Wide x 150mm Thick</p> <p><u>Aluminium and Glazing Works</u></p> <p>Note :-</p> <p>The quantity given herein are not to be used as the basic for ordering the window and fixed panel units, the contractor shall prior to placement of his order, verify from the drawing and physical work on the site and subsequently confirm with the S.O, the numbers and exact size of window and fixed panel unit show in his Bill and shall allow herein the extra costs incurred or savings accrued for any minor difference in size and adjustment necessary for the window and fixed panel units.</p> <p>Rate for aluminium works are to include everything necessary whether described herein or otherwise, for the complete installation of each unit in accordance with the specification, contract drawings and the approved shop drawings.</p> <p>The word 'frames' in the description herein after shall be deemed to included heads, jamb. Cills mullions, etc to window and fixed panel unit.</p> <p>The tenderer must ascertain the actual panel sizes of glass required and allow in the rates of each aluminium units the extra costs or saving of glass over the quantities given resulting from usage of smaller or larger frame extrusions, or different method of glazing.</p>	M	18		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 7 - WINDOWS (CONT'D)</u></p> <p><u>Aluminium and Glazing Works</u></p> <p><u>Supply and install minimum 1.0mm Thick natural anodize aluminium frame glass windows, fixed glass panels with glass adjustable louvres complete with frames, coupling, transomes, mullions, fixing screws, ironmongery, glazing beads, covered all surface with hot dip galvanised and all other fittings and accessories including approved 6mm Thick tinted float glass and fixing complete all in accordance to manufacturer's instructions and S.O approval :-</u></p> <p><u>Top Hung Window</u></p> <p>A Overall size 2100mm x 600mm high (W2) complete 12mm diameter security bar</p> <p><u>Safety Grill</u></p> <p>B Safety grill with 50mm x 25mm RHS frame and expanded metal mesh to be coated with anti-rust and paint complete with all necessary accessories all as per manufacture's detail and architect's aproval Overall size, 1700 mm x 700mm.</p> <p><u>Aluminium Screen</u></p> <p>C 100mm x 50mm RHS Frame with 1200mm width DML Aluminium box louvres complete with all necessary accessories all as per manufacture's detail and architect's aproval</p>				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
A	<u>ELEMENT NO. 10 - INTERNAL CEILING FINISHES</u> <u>Mineral Fibre Ceiling</u> <u>Supply and install 18mm thick mineral fibre ceiling, high humidity/fire resistant ceiling panel fixed to and including aluminium exposed grid suspension ceiling framing system installed strictly in accordance with the manufacturer's instruction and Architect's approval</u> <u>600mm x 1200mm x 18mm thick</u>	M2	95		
	To suspended ceilings (C4)				
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT 12 - PAINTING AND DECORATION</u>				
	<u>WALL AND CEILING</u>				
	<u>External</u>				
	<u>Prepare and apply one sealer coat of alkali-resisting primer and two coats of weather shield emulsion paint externally on surfaces of</u>				
A	Plastered wall and column	M2	175		
	<u>Internal</u>				
	<u>Prepare and apply one sealer coat of alkali-resisting primer and two coats of emulsion paint internally on surfaces of</u>				
B	Plastered wall and column	M2	57		
	<u>Metalwork</u>				
	<u>Prepare and paint one coat metallic primer, one undercoat and two finishing coats gloss enamel paint on metal surfaces</u>				
C	General surface of metal works exceeding 200mm and not exceeding 300mm girth	M	23		
	<u>Woodwork</u>				
	<u>Knot, prime, stop and paint one undercoat and two finishing coats of gloss enamel paint as described on timber surfaces</u>				
D	General surfaces of doors	M2	17		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 13 - SANITARY WARES & FITTINGS</u></p> <p><u>Supply and fix the following sanitary wares, fittings and accessories including assembling and jointing to supply, waste and overflow pipes where necessary, complete with all approved mounting, screws, sealant, jointing materials and making good all works disturbed all as per manufacturer's instruction and Architect's approval :-</u></p> <p><u>Toilets</u></p>				
A	550mm x 560mm x 310mm high Squatting Pan complete with integral tread complete with 'P' trap and complete with high level single flush cistern including flush valve push button	NO	4		
B	Pedestal closed couple washdown 635mm x 360mm x 390mm high in white colour or other equivalent including fittings and seat with cover and straight connector including flush valve push button	NO	4		
C	480mm x 485mm x 155mm high semi recessed basin complete with fixing bolts, with zinc bottle trap, and brass push up pop up waste & overflow	NO	10		
D	Single lever 1/2" basin pillar tap	NO	10		
E	100mm Diameter Shower rose in chrome complete with wall flanged shower valve	NO	8		
F	Hand spray controlled bidet with right angle stop valve, single lever quarter turn concealed tap, heavy duty flexible hose and wall bracket	NO	8		
G	130mm x130mm ceramic floor trap	NO	14		
H	300mm radius mirror with 6mm thick frosted beveled edge and mild steel frame with 5mm thick plywood backing fixed to the wall	NO	10		
J	3/4" Cross handle stop valve with flange	NO	4		
K	Urinal including flush valve push button	NO	2		
M	Tissue holder at 600mm height from floor level	NO	8		
N	Soap dispenser	NO	6		
P	Hand dryer	NO	2		
Q	Urinal divider panel	NO	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 13 - SANITARY WARES & FITTINGS (Cont'd)</u></p> <p><u>Supply and fix the following sanitary wares, fittings and accessories including assembling and jointing to supply, waste and overflow pipes where necessary, complete with all approved mounting, screws, sealant, jointing materials and making good all works disturbed all as per manufacturer's instruction and Architect's approval (Cont'd):-</u></p> <p><u>OKU Accessories</u></p>				
A	Pedestal closed couple washdown 635mm x 360mm x 390mm high in white colour or other equivalent including fittings and seat with cover and straight connector including flush valve push button	NO	1		
B	580mm x 640mm x 190mm high handicapped wall hung basin complete with fixing bolts and zinc bottle trap and brass push up pop up waste & overflow	NO	1		
C	Deck mounted elbow action pillar tap	NO	1		
D	35mm diameter L shape stainless steel OKU grab bar fixed o wall and floor complete with all necessary fixing accessories	NO	1		
E	35mm diameter stainless steel U wall hinged support Rail fixed to wall complete with all necessary fixing accessories	NO	1		
D	35mm diameter straight stainless steel OKU grab bar fixed to wall and floor complete with all necessary fixing accessories	NO	2		
F	Hand spray controlled bidet with right angle stop valve, single lever quarter turn concealed tap, heavy duty flexible hose and wall bracket	NO	1		
G	702mm x 90mm x 170mm toilet roll holder	NO	1		
H	130mm x130mm ceramic floor trap	NO	2		
J	500mm x 750mm mirror with 6mm thick frosted beveled edge and mild steel frame with 5mm thick plywood backing fixed to the wall	NO	1		
K	Soap dispenser	NO	1		
L	Hand dryer	NO	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
A	<u>ELEMENT NO. 13 - SANITARY WARES & FITTINGS (Cont'd)</u>	ITEM			
	<u>Testing</u> On completion of the sanitary and plumbing installation, test all apparatus, piping and fittings and make good any defects and leave the whole in perfect working order to the satisfaction of the Architect				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 14 - SUNDRIES</u>				
	<u>BUILDER'S WORK IN CONNECTION WITH SANITARY FITTINGS</u>				
	<u>Counter Top</u>				
A	Construct and complete reinforced concrete counter top overall size 1450mm x 685mm x 100mm thick including all necessary formwork, reinforcement bar and approved finishes complete with openings to receive wash hand basin (measured separately) all to Architect's detail drawing	NO	2		
	<u>Squatting Base</u>				
B	Construct for 200mm thick base to receive squatting pan including concrete, formwork and complete with all necessary finishes as shown on drawing	NO	4		
	<u>Floor Trap at Scupper Drain</u>				
C	130mm x 130mm wide UPVC floor trap with 100mm diameter openable UPVC grating including connecting to pipes and setting in concrete floor and making good tiling works	NO	2		
	<u>Scupper Drain</u>				
D	Extra Over for scupper drain 150mm x 150mm including all necessary works	M	14		
	<u>Concrete Plinth</u>				
E	Vibrated reinforced concrete in concrete plinth to receive water tank, fixed in position including starter bars and all necessary formwork, reinforcement, fair finish to exposed surface all as per detail drawing and S.O's approval	NO	10		
	TO SUMMARY				

ITEM	ELEMENT	FROM PAGE	AMOUNT (RM)
	SUMMARY		
1	WORK BELOW LOWEST FLOOR LEVEL	B2.2/1/5	
2	FRAME	B2.2/2/1	
3	ROOF AND ROOF FINISHES	B2.2/3/4	
4	EXTERNAL WALLS	B2.2/4/1	
5	INTERNAL WALLS	B2.2/5/1	
6	DOORS	B2.2/6/3	
7	WINDOWS	B2.2/7/3	
8	INTERNAL FLOOR FINISHES	B2.2/8/1	
9	INTERNAL WALL FINISHES	B2.2/9/1	
10	INTERNAL CEILING FINISHES	B2.2/10/1	
11	EXTERNAL FINISHES	B2.2/11/1	
12	PAINTING AND DECORATION	B2.2/12/1	
13	SANITARY WARES & FITTINGS	B2.2/13/4	
14	SUNDRIES	B2.2/14/1	
	TOTAL CARRIED TO GENERAL SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL</u>				
	<u>Note :</u> All excavation are measured from platform level unless otherwise stated <u>Excavation commencing from formation level, get out, part return, fill in, ram deposit and spread in making up level where directed within the site, remainder load and cart away from site to Contractor's own dump</u>				
A	Pad footings not exceeding 2.00m depth	M3	146		
B	Ground beams exceeding 500mm but not exceeding 1.00m depth	M3	45		
C	Ground slabs exceeding 150mm but not exceeding 300mm thick	M3	132		
D	Ditto to receive apron slabs ditto	M3	25		
	<u>Concrete Works</u> <u>Lean concrete Grade 15 blinding with surfaces finished level to receive concrete including where necessary trimming base of excavation</u>				
E	Concrete blinding under pad footing n.e 100mm thick	M2	122		
F	Concrete blinding ground beams n.e 100mm thick	M2	76		
G	Concrete blinding under ground slabs n.e 100mm thick	M2	659		
H	Concrete blinding under apron slabs n.e 100mm thick	M2	120		
	<u>Vibrated reinforced concrete Grade 40 as described in :-</u>				
J	Pad footings	M3	44		
	<u>Vibrated reinforced concrete compressive strength C32/40 as described in :-</u>				
K	Column stumps	M3	5		
L	Ground beams	M3	42		
M	Ground slabs exceeding 150mm but not exceeding 300mm thick	M3	99		
N	Apron slabs not exceeding 150mm thick	M3	18		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u>				
	<u>Concrete Works (Cont'd)</u>				
	<u>Reinforcement</u>				
	<u>Mild steel bar reinforcement to concrete works generally, including all cutting, bending and placing in :-</u>				
	<u>Ground Beams</u>				
A	10mm Diameter as stirrups	KG	1,555		
	<u>Column Stumps</u>				
B	10mm Diameter as links	KG	288		
	<u>High Tensile bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
	<u>Pad Footings</u>				
C	12mm Diameter as binder, straight and bend bars	KG	2,646		
D	16mm Diameter ditto	KG	162		
	<u>Column Stumps</u>				
E	12mm Diameter as straight and bend bars	KG	145		
F	16mm Diameter as straight and bend bars	KG	390		
G	20mm Diameter ditto	KG	311		
	<u>Ground Beams</u>				
H	12mm Diameter as straight and bend bars	KG	778		
J	16mm Diameter ditto	KG	824		
K	20mm Diameter ditto	KG	915		
L	25mm Diameter ditto	KG	87		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u>				
	<u>Reinforcement (Cont'd)</u>				
	<u>High Tensile bar reinforcement to concrete works generally, including all cutting, bending and placing in position : - (Cont'd)</u>				
	<u>Ground Slab</u>				
A	10mm Diameter	KG	8,426		
	<u>Apron Slabs</u>				
B	10mm Diameter	KG	1,905		
	<u>Formwork</u>				
	<u>Use and waste of sawn formwork :-</u>				
C	Sides of pad footings	M2	92		
D	Sides of column stumps	M2	48		
E	Sides of ground beams	M2	313		
F	Edges of ground slabs not exceeding 250mm high	M	194		
G	Sides of apron slabs ditto	M	125		
	<u>Damp Proof Membrane</u>				
	<u>One layer of approved 0.5mm thick extruded polythene film damp proof membrane as described well lapped at joints and sealed under :-</u>				
H	Concrete slabs (measured nett-no allowance made for laps)	M2	659		
J	Apron slabs (ditto)	M2	120		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u></p> <p><u>Anti-Termite</u></p> <p><u>Four stage ground treatment againsts subterranean termites using termiticide chemical soil treatment approved by Ministry of Health including providing written Guarantee :-</u></p>				
A	<p>Allow for preparing and applying of four (4) stages pre-construction anti-termite treatment to be carried out by an approved soil treatment specialist including preparation of surfaces to receive treatment working progressively to accommodate the construction works or in section, all in accordance with an approved practise and to the satisfaction of the S.O. (measured flat overall)</p>	M2	779		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 3 - ROOF AND ROOF FINISHES</u>				
	<u>Roof Covering</u>				
	Supply and install OSM Architectural Double-Skin Roof System with TwinZip 25 Standing Seam sheet minimum 0.53mm thick (TCT), metal deck roof with approved profile as OSM PRIME insulation achieving STC 45, Metaldek 24 Drill& Screw 0.47mm (TCT) and OSM Flashing &Capping with 0.47mm (TCT) fixed to structural purlins complete with and including with approved clips and all necessary fixing accessories all to the manufacturer's details (measured nett -no allowance made for laps)				
A	To minimum 10° degree pitch roof; generally	M2	605		
B	To minimum 7° degree pitch roof; generally	M2	455		
	<u>Roof Insulation</u>				
C	One layer double sided aluminium foil sisalation of approved type laid over roof trusses (measured separately) well lapped at joints all in accordance to the manufacturer's instruction (measured nett no allowance made for laps)	M2	1060		
D	100mm thick approved rockwool or fiberglass wool insulation laid on and including one layer of approved chicken wire mesh to roof metal decking (measured nett - no allowance made for laps)	M2	1060		
	<u>Miscellaneous</u>				
E	300mm x 225mm stainless steel gutter (gauge 18 min. thk.)	M	66		
F	15mm thk timber plank at 200mm height and to be install along gutter	M	136		
G	100mm dia. UPVC gutter trap	No	11		
H	100mm dia. UPVC rainwater downpipe to be installed 75mm offset from wall and paint black complete with bracket in every 600mm	M	68		
J	22 gauge g.i flashing to paint black under roof connection including all necessary accessories	M	114		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 6 - SUNDRIES</u>				
	<u>Aluminium Frame Glass Screen</u>				
A	Supply and install glass screen consist of 100mm x 25mm RHS aluminium frame complete with 8mm tempered split glass (tinted) including all necessary fixing accessories and jointing to the roof truss system (measured separately) all as approved by the S.O	M2	250	800.00	
	<u>Stall Marking</u>				
B	Prepare and apply approved two coats of 150mm width thermoplastic relective paint, all accordance with manufacture's instruction and all as approved by the S.O Overall size : 2500mm x 2000mm	NO	30	20.00	
	<u>Counter Top</u>				
C	Construct and complete reinforced concrete counter top overall size 1450mm x 800mm x 100mm thick including all necessary formwork, reinforcement bar and approved finishes complete with openings to receive wash hand basin (measured separately) all to Architect's detail drawing	NO	2	2,500.00	
	<u>Supply and fix the following sanitary wares, fittings and accessories including assembling and jointing to supply, waste and overflow pipes where necessary, complete with all approved mounting, screws, sealant, jointing materials and making good all works disturbed all as per manufacturer's instruction and Architect's approval :-</u>				
D	480mm x 485mm x 155mm high semi recessed basin complete with fixing bolts, with zinc bottle trap, and brass push up pop up waste & overflow	NO	6	350.00	
E	Single lever 1/2" basin pillar tap	NO	6	120.00	
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL</u></p> <p><u>Note :</u></p> <p>All excavation are measured from platform level unless otherwise stated</p> <p><u>Excavation commencing from formation level, get out, part return, fill in, ram deposit and spread in making up level where directed within the site, remainder load and cart away from site to Contractor's own dump</u></p>				
A	Pad footings not exceeding 2.00m depth	M3	15		
B	Ground beams exceeding 500mm but not exceeding 1.00m depth	M3	1		
C	Ground slabs exceeding 150mm but not exceeding 300mm thick	M3	22		
D	Ditto to receive apron slabs ditto	M3	3		
E	Ditto to receive ramp	M3	3		
	<p><u>Bed of hardcore as described, spread and levelled, well rammed and consolidated, watered and blinded with fine sand, well rolled in and finished to :-</u></p>				
F	Pad footings not exceeding 2.00m depth	M2	15		
G	Ground beams exceeding 500mm but not exceeding 1.00m depth	M2	6		
H	Average 150mm thick to receive ground slabs (measured separately)	M2	73		
J	Ditto to receive apron slabs ditto	M2	9		
K	Ditto to receive ramp ditto	M2	8		
	<p><u>Concrete Works</u></p> <p><u>Lean concrete Grade 15 blinding with surfaces finished level to receive concrete including where necessary trimming base of excavation</u></p>				
L	Concrete blinding under pad footing not exceeding 100mm thick	M3	18		
M	Ditto ground beams ditto	M3	6		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u>				
	<u>Concrete Works (Cont'd)</u>				
	<u>Lean concrete Grade 15 blinding with surfaces finished level to receive concrete including where necessary trimming base of excavation (Cont'd)</u>				
A	Concrete blinding under ground slabs not exceeding 100mm thick	M3	4		
B	Ditto apron slabs ditto	M3	9		
C	Ditto ramp ditto	M3	8		
	<u>Vibrated reinforced concrete compressive strength C32/40 as described :-</u>				
A	Pad footings	M3	5		
B	Column stumps	M3	1		
C	Ground beams	M3	3		
D	Ground slabs exceeding 150mm but not exceeding 300mm thick	M3	11		
E	Apron slabs not exceeding 100mm thick	M3	1		
F	Ramp not exceeding 100mm thick	M3	1		
	<u>Reinforcement</u>				
	<u>Mild steel bar reinforcement to concrete works generally, including all cutting, bending and placing in :-</u>				
	<u>Pad Foundation</u>				
A	12mm Diameter as stirrups	KG	66		
	<u>Ground Beams</u>				
B	10mm Diameter as stirrups	KG	100		
	<u>Column Stumps</u>				
C	10mm Diameter as links	KG	14		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 1 - WORK BELOW LOWEST FLOOR LEVEL (CONT'D)</u>				
	<u>Formwork</u>				
	<u>Use and waste of sawn formwork :-</u>				
A	Sides of pad footings	M2	11		
B	Sides of column stumps	M2	3		
C	Sides of ground beams	M2	54		
D	Edges of ground slabs not exceeding 250mm high	M	6		
E	Sides of apron slabs ditto	M2	1		
F	Sides of ramp ditto	M2	1		
	<u>Damp Proof Membrane</u>				
	<u>One layer of approved 0.5mm thick extruded polythene film damp proof membrane as described well lapped at joints and sealed under :-</u>				
G	Concrete slabs (measured nett-no allowance made for laps)	M2	73		
H	Apron slabs (ditto)	M2	9		
J	Ramp (ditto)	M2	8		
	<u>Anti-Termite</u>				
K	<u>Four stage ground treatment againts subterranean termites using termiticide chemical soil treatment approved by Ministry of Health including providing written Guarantee :-</u>				
L	Allow for preparing and applying of four (4) stages pre-construction anti-termite treatment to be carried out by an approved soil treatment specialist including preparation of surfaces to receive treatment working progressively to accommodate the construction works or in section, all in accordance with an approved practise and to the satisfaction of the S.O. (measured flat overall)	M2	82		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 2 - FRAME</u>				
	<u>Concrete Works</u>				
	<u>Vibrated reinforced concrete compressive strength C32/40 as described :-</u>				
A	Columns	M3	1		
B	Roof Beams	M3	5		
	<u>Reinforcement</u>				
	<u>Mild steel bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
C	10mm Diameter as links in Column	KG	76		
D	10mm Diameter as stirrups in Roof Beam	KG	140		
	<u>High Tensile bar reinforcement to concrete works generally, including all cutting, bending and placing in position :-</u>				
	<u>Columns</u>				
E	16mm Diameter ditto	KG	185		
	<u>Roof Beams</u>				
F	12mm Diameter as straight and bend bars	KG	21		
	<u>Sawn formwork as described to :-</u>				
G	Sides of columns	M2	22		
H	Sides and soffit of roof beams	M2	55		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 3 - ROOF AND ROOF FINISHES (CONT'D)</u>				
	<u>Roof Covering</u>				
	Supply and install approved metal deck roof covering sheet minimum 0.48mm thick (TCT), single skinned metal deck roof with approved profile as described fixed to structural purlins complete with and including with approved clips and all necessary fixing accessories all to the manufacturer's details (measured nett -no allowance made for laps)				
A	To minimum 3° degree pitch roof; generally	M2	29		
	<u>Roof Insulation</u>				
D	One layer double sided aluminium foil sisalation of approved type laid over roof trusses (measured separately) well lapped at joints all in accordance to the manufacturer's instruction (measured nett no allowance made for laps)	M2	29		
E	50mm thick approved rockwool or fiberglass wool insulation laid on and including one layer of approved chicken wire mesh to roof metal decking (measured nett - no allowance made for laps)	M2	29		
	<u>Flashing</u>				
F	Girth not more than 220mm	M2	29		
	<u>Upvc gutter</u>				
G	220mm wide gutter including all necessary accessories	M2	6		
	<u>Rainwater Goods</u>				
H	100mm diameter uPVC rainwater downpipe of any approved equivalent including fittings encased in brickwall and fixed to wall all as per Architect's detail drawing	M2	9		
	<u>Extra over</u> for bends	M2	6		
J	<u>Extra over</u> for tee	M2	6		
K	<u>Extra over</u> for outlets	M2	2		
L	100mm diameter of any approved equivalent dome roof outlet or approved equivalent to manufacturer's detail and architect approval	M2	2		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT NO. 4 - EXTERNAL WALLS</u>				
	<u>Precast Concrete Copping</u>				
	<u>Reinforced vibrated precast concrete Grade 40 as described including all moulds, hoisting and setting in cement mortar (1:3)</u>				
A	100mm x 150mm thick precast concrete coping to wall complete with all necessary reinforcement and formwork	M	4		
	<u>Brickworks</u>				
	<u>Common clay bricks in cement mortar (1:3) with plasticiser as described reinforced with and including approved steel fabric reinforcement as described at every fourth course, well lapped and including 6mm diameter mild steel bonding ties as described 450mm girth one end cast into concrete and another end fixed into brickwall</u>				
B	150mm thick to wall -----	M2	65		
C	150mm wide bituminous sheet damp proof course as described (measured nett-no allowance made for laps) to half brick walls	M	13		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<p><u>ELEMENT NO. 6 - WINDOWS</u></p> <p>Note :-</p> <p>The quantity given herein are not to be used as the basic for ordering the window and fixed panel units, the contractor shall prior to placement of his order, verify from the drawing and physical work on the site and subsequently confirm with the S.O, the numbers and exact size of window and fixed panel unit show in his Bill and shall allow herein the extra costs incurred or savings accrued for any minor difference in size and adjustment necessary for the window and fixed panel units.</p> <p>Rate for aluminium works are to include everything necessary whether described herein or otherwise, for the complete installation of each unit in accordance with the specification, contract drawings and the approved shop drawings.</p> <p>The word 'frames' in the description herein after shall be deemed to included heads, jamb. Cills mullions, etc to window and fixed panel unit.</p> <p>The tenderer must ascertain the actual panel sizes of glass required and allow in the rates of each aluminium units the extra costs or saving of glass over the quantities given resulting from usage of smaller or larger frame extrusions, or different method of glazing.</p>				
	To Collection				-

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
A	<u>ELEMENT NO. 6 - WINDOWS (CONT'D)</u> <u>Aluminium and Glazing Works</u> <u>Supply and install minimum 1.0mm Thick natural anodize aluminium frame glass windows, fixed glass panels with glass adjustable louvres complete with frames, coupling, transomes, mullions, fixing screws, ironmongery, glazing beads, covered all surface with hot dip galvanised and all other fittings and accessories including approved 6mm Thick tinted float glass and fixing complete all in accordance to manufacturer's instructions and S.O approval :-</u> <u>Aluminium Frame Fixed Lourves</u>	NO	2		
	Overall size 1850mm x 600mm (W1)				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
A	<u>ELEMENT NO. 9 - INTERNAL CEILING FINISHES</u>				
	<u>Skim Coat</u> Prepare and apply approved 3.2mm thick ready mixed cement based skim coating to concrete soffit; and sides and soffit of beams, soffit of landing slab, sides of stringers, sloping soffits of staircase, etc.	M2	27		
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE (RM)	AMOUNT (RM)
	<u>ELEMENT 12 - PAINTING AND DECORATION</u> <u>WALL AND CEILING</u> <u>External</u> <u>Prepare and apply one sealer coat of alkali-resisting primer and two coats of weather shield emulsion paint externally on surfaces of</u> A Plastered wall and column M2 65 B General surface of ceilings M2 5 C Coping and roof slab M2 4 <u>Internal</u> <u>Prepare and apply one sealer coat of alkali-resisting primer and two coats of emulsion paint internally on surfaces of</u> D Plastered wall and column M2 1 E General surface of ceilings - roof slab M2 27 F General surface of ceilings - suspended ceiling M2 1				
	TO SUMMARY				

[illegible]

ITEM	ELEMENT	FROM PAGE	AMOUNT (RM)
	SUMMARY		
1	WORK BELOW LOWEST FLOOR LEVEL	B2.4/1/5	
2	FRAME	B2.4/2/1	
3	ROOF AND ROOF FINISHES	B2.4/3/4	
4	EXTERNAL WALLS	B2.4/4/1	
5	DOORS	B2.4/6/1	
6	WINDOWS	B2.4/7/3	
7	INTERNAL FLOOR FINISHES	B2.4/8/1	
8	INTERNAL WALL FINISHES	B2.4/9/1	
9	INTERNAL CEILING FINISHES	B2.4/10/1	
10	EXTERNAL FINISHES	B2.4/11/1	
11	SANITARY WARES & FITTINGS	B2.4/12/1	
12	PAINTING AND DECORATION	B2.4/12/1	
13	SUNDRIES	B2.4/13/1	
14	STEEL STRUCTURE	B2.4/14/1	
	TOTAL CARRIED TO GENERAL SUMMARY		

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>SITE PREPARATIONS, SITE CLEARANCE & DEMOLITION (ALL PROVISIONAL)</u></p> <p><u>GENERAL NOTES</u></p> <p>The Contractor is referred hereinafter to the following items which have been described or implied in the Specifications, and which he will be held to have include:-</p> <p>The description given herein for each demolition item is only a brief description of the works involved</p> <p>The tenderer shall be deemed to have visited the site to obtain all necessary and adequate information as regards to actual, conditions and amount, of the works to be demolished so as to enable him to price the demolition items accordingly</p> <p>No claims will be entertained on the grounds that the information given hereinafter are insufficient, inadequate and incorrect</p> <p>The Contractor is to exercise care in the demolition works and to take all necessary existing structures which are to remain and not to be demolished. The Contractor is responsible to make good any damage caused to such structure arising from whatever cause all at his own expenses</p> <p>The Contractor is to exercise absolute care in the dismantling, transport and reinstall the machinery and equipment and take all necessary precautionary measures to protect the machinery and equipment during dismantling, transporting and reinstallation. The Contractor is responsible to make good/ replace any damage cause to any machinery and equipment arising from whatever cause all at his own expenses</p> <p>All materials arising out of the demolition works shall become the property of the contractor. The contractor shall be deemed to have allowed in his prices for any salvage resale value (Credit Value) of the same</p>				
To Collection					-

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>SITE PREPARATIONS, SITE CLEARANCE & DEMOLITION (ALL PROVISIONAL) (Cont'd)</u></p> <p><u>DEMOLITION WORKS</u></p> <p><u>To provide labour, transport and machineries to carry out general clearance and demolition works including demolishing and clearing to all the followings as per limit of work's boundary, and all other items than specified below, that may obstruct the construction works: complete with necessary related works including power termination, excavation and cart away all demolished materials off to Contractor's own dumping site</u></p>				
A	Demolition of existing building and structures on site	ITEM			
B	Demolition of existing concrete drain on site	M	275		
	<p><u>SITE CLEARANCE</u></p> <p><u>Before commencing site clearance, the contractor shall identify any existing buildings, canal, swamp, rivers and position of water and other services from the relevant authorities and arrange for the diversion or termination of the services. The Contractor shall allow for paying all costs and charges in connection there with.</u></p>				
C	Allow for taking over the site and clear the area and including encroachment area of all rubbish, debris, top soil, lalang, undergrowth, creepers, shrubs, bushes, canal, swamp, rivers, protection of existing services from any damages and during the project execution, failing which contractor shall borne any cost related to rectification and making good work, cut down, remove existing concrete waste debris, stone chipping etc. including spread out all over site surface and remove existing trees and stumps, including grubbing uproots and cart away to an approved dumping ground to be found by the Contractor and was permitted by the local authority and S.O approval	ITEM			
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>SITE PREPARATIONS, SITE CLEARANCE & DEMOLITION (ALL PROVISIONAL) (Cont'd)</u>				
	<u>COLLECTION</u>				
	From Page B.4.1/1	.	.		
	From Page B.4.1/2	.	.		
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>EARTHWORKS (ALL PROVISIONAL)</u></p> <p><u>Notes:-</u></p> <p>The rate of exported and imported earth shall be inclusive of any royalty which shall be borne by the Contractor.</p> <p>The measurement of all excavations and subsequent disposals shall be those before excavations. All excavations are measured nett. The increase in bulk after excavation shall be allowed for in the Contractor's rates.</p> <p>The Contractor shall allow for consolidation by roller as directed by the S.O.</p> <p>The Contractor shall note that filling works shall include any additional earth required to achieved the level indicated in layout plan. No claims shall be made on additional works due to settlement of land.</p> <p><u>Cut to Fill</u></p> <p><u>Excavation in cut shall be deemed to include compaction, trimming and preparation of excavated surface and transportation from source to place of fill or disposal.</u></p>				
A	<p>Excavate in earth material from original ground level</p> <p><u>Cut and dispose</u></p> <p><u>Excavation in cut shall be deemed to include compaction, trimming and preparation of excavated surface and transportation from source to place of fill or disposal including payment of all charges and royalties imposed by Local Authority</u></p>	M3	819		
B	Excavate for unsuitable material to the S.O. approval and remove the excavated unsuitable material from site to the Contractor dumping area permitted by Local Authority.	M3	RATE ONLY		
C	Extra over for excavation cutting through rock at any depth, breaking up using controlled blasting and removing off the site (including obtain explosive permit from Authorities and all necessary safety precautions)	M3	RATE ONLY		
D	<p><u>Filling</u></p> <p>Approved imported earth fill as described obtainable from Contractor's own source to make up levels to areas to be filled up to platform level including depositing, spreading and levelling in layer, to the required formation level as indicated in the Layout Plan</p> <p><u>Disposal</u></p>	M3	224		
E	Remove the excavated unsuitable material from site to the Contractor dumping area permitted by Local Authority including payment of all charges and royalties imposed by Local Authority	M3	1,268		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>EARTHWORKS (ALL PROVISIONAL) (Cont'd)</u></p> <p><u>Erosion & Soil Control Plan (ESCP) Works</u></p> <p><u>Notes :-</u></p> <p>Provide for all temporary works required for the carrying out of the earthworks out such as cut-off drains, earth drains, sediment fence, dykes, outlet protection and all other precautionary and preventive measures, dewatering, etc. and including make good land slips erosions and subsidences as may be required as directed by the Engineer incidental or deemed necessary for the proper execution of the whole contract works and maintain same for the duration of the contract and removal including making good all existing works disturbed at the end of the contract period.</p> <p><u>Temporary Earthdrain and Earthbund</u></p>				
A	Excavate trench for earth drain overall size 1550mm wide x 500mm high (minimum) complete with 150mm stone riprap and formation of earth bund backfilling formed from cutting drain to the S.O. approval and remove any surplus excavated material away from site to Contractor's own dumping ground and including the formation slopes complete with close turfing and desalting at regular interval during construction period, reinstate back upon completion all as per Engineer's Drawing	M	227		
B	<p><u>Check Dam</u></p> <p>Construct and complete temporary check dam with aggregate recycled concrete complete with gabions in 2 layers, trenched 2300mm into ground including all necessary excavations and compactions work, maintenance during construction period and remove surplus material away from site to the Contractor own dumping ground upon completion all as per Engineer drawing</p> <p><u>Silt Fence</u></p>	NO	3		
C	Supply and construct 1000mm high silt fence with 150mm overlap of jointing including self supporting geotextile on soil, tie wire, 1800mm high pole at max 1500mm centres anchoring to ground, 150mm x 150mm trench along the upslope line with compacted backfill and including all necessary fixing accessories and maintenance during construction periods reinstate back upon completion all as per Engineer's drawing	M	275		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	EARTHWORKS (ALL PROVISIONAL) (Cont'd)				
	<u>Temporary Access Road</u>				
A	Allow for construction of 300mm thick crushed aggregate road base type 2, 70mm thick asphaltic concrete binder course ACB 28 for 7.0meter wide temporary access road well compacted, connect to existing road including all necessary excavations, maintenance during construction period and remove material away from site to contractor own dumping ground upon completion all as per Engineer's Drawing and S.O approval.	M2	33		
	<u>Wash Through</u>				
B	Construct and maintain wash trough overall size 7.5m x 3.6m complete with 150mm crusher run road base well compacted, 150mm concrete base (G25) with one layer A 393, 50mm crusher run with 50mm nominal size aggregate laid loose, Grating Y25 at 100mm centre to centre, 200 x 100 x 12mm thick steel angle at 600mm centre to centre, including water stoper and discharge to nearest earth drain, 1 nos of water jet pump, and all necessary works as per approval of the S.O. Maintenance during construction period,removal including making good at the end of the contract period and upon completion and all to the approval of the S.O and as shown in Engineer's Drawing	NO	1		
	<u>Dry Sediment Basin</u>				
C	Provide and maintain all necessary sediment basin overall size 10m x 6m x 0.9m including lean concrete, gravel, 450mm perforated pipe riser, coarse gravel filter, temporary bund/sand bags/gabion, 0.15m deep emergency spillway, Geotextile, sediment fence and any other related works and accessories during construction period and reinstate back upon completion of work to be satisfaction of S.O and all as shown in Engineer's Drawing	NO	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EARTHWORK (ALL PROVISIONAL)</u> <u>(Cont'd)</u>				
	<u>COLLECTION</u>				
	From Page B.4.2/1	.	.		
	From Page B.4.2/2	.	.		
	From Page B.4.2/3	.	.		
TO SUMMARY					

BILL NO. 4.3- ROADS, CARPARK AND PAVEMENT (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>ROADS, CARPARK AND PAVEMENT (ALL PROVISIONAL)</u>				
	<u>Roadworks</u>				
A	Excavate to road formation level average 500mm deep commencing from formation level and remove from site	M2	425		
B	Grade over surface of excavation and filling to gradients crossfalls and rolled as described	M2	425		
C	50mm thick sand and compacted sub base (CBR>20%)	M2	425		
D	300mm thick (consolidated thickness) of crusher rock as road base laid in layers of 150mm thick each, spread, levelled and rolled as described (CBR>80%)	M2	425		
E	Prepare and apply one layer of bituminous prime coat or dense bituminious macadam 80 at the rate 0.25 to 0.55 litres per square metre	M2	425		
F	65mm thick asphaltic concrete binder course (ACB 20) as described, spread, levelled and rolled to falls and chamber	M2	425		
G	Prepare and apply one layer of bituminous tack coat or dense bituminious macadam 80 at the rate 0.25 to 0.55 litres per square metre	M2	425		
H	50mm thick asphaltic concrete wearing course base course premix (ACW 14) as described	M2	425		
J	Cutting in and bonding new premix road to existing road and including labour and material for making good works	M	47		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Concrete Slab Paver</u>				
A	Excavate to road formation level average 450mm deep commencing from formation level and remove from site	M2	104		
B	Grade over surface of excavation and filling to gradients crossfalls and rolled to compact the subgrade	M2	104		
C	200mm thick (consolidated thickness) of hardcore spread and levelled and rolled as described.	M2	104		
D	50mm thick lean concrete as described, levelled to receive concrete slab as specified	M2	104		
E	200mm thick approved concrete slab pavement laid on lean concrete (measured separately) set into approved colour and required pattern including filling joints, reinforcement (if any) joint with premix roads and compacting all in accordance with the manufacturer's information and S.O approval	M2	104		
	<u>Road Kerb</u>				
F	Excavate trench for road kerb base 230mm wide and average 400mm deep get out, part return, fill in and ram and remove surplus materials from site	M	192		
G	Ditto curved to varying radius	M	5		
H	100mm thick (consolidated thickness) of crusher run base, spread, levelled and rolled as described	M2	19		
J	Ditto curved to varying radius	M2	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>ROAD KERB (Cont'd)</u> <u>Cast-in-situ low kerb with channel piece as described laid on mass concrete bedding on compacted hardcore surfaces including blanket, formwork, moulds, angles, ends, intersection, chamfered top, rebated sides, finished fair on exposed faces all as per Engineer's detail drawing</u>				
A	229mm wide x 280mm high kerb with one side batter and rounded on one edge (Type A)	M	132		
B	Ditto curved to varying radius	M	5		
C	229mm wide x 300mm high kerb with one side batter and rounded on one edge (Type B)	M	60		
D	Ditto curved to varying radius	M	RATE ONLY		
E	<u>Extra Over</u> for kerb with inlet opening with 2000mm c/c	NO	66		
F	Prepare and paint two coats non reflective road paint of black and white girth 589mm on road kerb	M	197		
	<u>ROAD GULLY</u>				
G	Road gully overall size 650mm x 450mm x 475mm high precast road gully including excavation, and forming opening for 225mm diameter stormwater pipe and discharge to nearest drain/ thrust block and complete with precast concrete grating all as per Engineer's detail drawing	NO	33		
	To Collection				

BILL NO. 4.3- ROADS, CARPARK AND PAVEMENT (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL) (Cont'd)</u></p> <p><u>ROAD FURNITURE</u></p> <p><u>Prepare and apply one coat primer and one coat reflectorised thermoplastic road paint</u></p> <p>A Prepare and paint white thermoplastic road paint in 150mm wide edge line on finished road surface</p> <p>B Prepare and paint white thermoplastic road paint in motorcycle parking lines overall size 2.00m x 1.00m on finished road surface</p> <p>C Prepare and paint white thermoplastic road paint in parking lines for food truck overall size 6.70m x 3.00m on finished road surface as per detail drawing</p> <p><u>WARNING TRAFFIC SIGNS</u></p> <p><u>Supply and install standard reflectorised traffic signs (regulatory and warning signs) mounted on one tubular steel post including bolts, nuts, concrete base and other ancillary works as per Engineer's drawing</u></p> <p>D 'NO ENTRY' Sign</p> <p>E 'MOTORCYCLE' Sign</p>				
	To Collection				

BILL NO. 4.3- ROADS, CARPARK AND PAVEMENT (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>COLLECTION</u> From Page B.4.3/1 From Page B.4.3/2 From Page B.4.3/3 From Page B.4.3/4				
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>SURFACE WATER DRAINAGE</u> <u>(ALL PROVISIONAL)</u> <u>Cast in situ U-Shape Drain</u> <u>Excavation</u> <u>Excavate trenches commencing from platform level including including earthwork, support, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides and including planking and strutting and removed surplus material from site</u>				
A	600mm wide - Maximum depth not exceeding 1.5m deep	M	120		
B	700mm wide - Maximum depth not exceeding 1.5m deep	M	92		
	<u>Hardcore</u>				
C	Crush aggregate filling to be obtained off site to excavation, compacted in 150mm thick layer.	M2	21		
	<u>Lean Concrete</u>				
D	50mm thick concrete Grade 15 as described blinding under reinforced concrete pipe culvert	M2	1		
	<u>Concrete work</u>				
	<u>Vibrated reinforced concrete Grade 25 as described filled into formwork and well packed around rod or fabric reinforcement (formwork and reinforcement measured separately) in:-</u>				
E	150mm thick beam	M3	24		
F	150mm thick wall	M3	64		
G	150mm thick concrete base	M3	21		
	<u>Class F2 formwork as described to:-</u>				
H	Sides of wall	M2	848		
J	Sides of beam	M2	286		
	<u>Class F1 formwork as described to:-</u>				
K	Sides of base slab, 250mm high - 5.00mm high	M	424		
	<u>Reinforcement</u>				
	<u>Double layer of steel fabric reinforcement BRC A8 weighting 3.95kg/m2 well lapped at joints (measured nett - no allowance made for laps) as described to:-</u>				
L	Wall	M2	1,103		
M	Concrete Base	M2	400		
N	Beam	M2	570		
To Collection					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>Cast in situ U-Shape Drain (Cont'd)</u>				
	<u>Weephole</u>				
A	100mm diameter Vitrified clay (VC) weephole pipe in approximate 200mm length at alternate 2000mm center to center surrounded with granular bedding to Engineer's approval and as per Engineer Drawing	NO	332		
	<u>Mild Steel Angle</u>				
B	75mm x 75mm x 6mm thick mild steel angle plate and mild steel fish tail with 40mm x 50mm x 4mm thick mild steel plate cut to shape and welded to angle plate to Engineer's approval and as per Engineer Drawing	M	424		
	<u>Precast Concrete Cover</u>				
C	300mm x 102mm thick precast concrete Grade 25 drain cover slab with smooth finish including formwork and reinforcement to Engineer's approval and as per Engineer Drawing	M	120		
D	400mm x 102mm thick precast concrete Grade 25 drain cover slab with smooth finish including formwork and reinforcement to Engineer's approval and as per Engineer Drawing	M	92		
	<u>Precast Concrete Block Drain</u>				
	<u>Excavation</u>				
	<u>Excavate trenches commencing from platform level including including earthwork, support, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides and including planking and strutting and removed surplus material from site</u>				
E	Maximum depth not exceeding 1.5m deep	M	171		
	<u>Concrete work</u>				
	<u>Vibrated reinforced concrete Grade 20 as described filled into formwork and well packed around rod or fabric reinforcement (formwork and reinforcement measured separately) in:-</u>				
F	525mm thick concrete base	M3	91		
	<u>Class F1 formwork as described to:-</u>				
G	Sides of base slab, not exceeding 300mm high	M	345		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>Precast Concrete Block Drain (Cont'd)</u>				
	<u>Brickwall</u>				
A	225mm thick brickwall in cement mortar 1:3, 20mm plastering to all internal and exposed brickwork surface, including all necessary accessories as per Engineer's detail and drawing	M2	77		
	<u>Reinforcement</u>				
B	Supply and fix 10mm diameter mild steel reinforcement bar at 1200mm centre to centre, protruding 300mm all as per Engineer Drawing	KG	92		
	<u>Block Drain</u>				
C	450mm precast block drain finished on internal surfaces, laid to falls, jointed with and including grouting, joint and forming filled with cement and sand (1:3) mortar	M	171		
	<u>Precast Concrete Cover</u>				
D	975mm x 102mm thick precast concrete Grade 25 drain cover slab with smooth finish including formwork and reinforcement to Engineer's approval and as per Engineer Drawing	M	171		
	<u>Weephole</u>				
E	100mm diameter Vitrified clay (VC) weephole pipe in approximate 230mm length at alternate 2000mm center to center surrounded with granular bedding to Engineer's approval and as per Engineer Drawing	NO	172		
	<u>RC Struts</u>				
F	Construct a 125mm x 125mm x 975mm cast in-situ concrete struts Grade 25 including 1R6 at 200mm c/c and 4R10 for main reinforcement at 2000mm c/c along the drain and including all formwork and reinforcement to Engineer's approval and as per Engineer Drawing	NO	86		
	<u>Reinforced Concrete Pipe Culvert</u>				
	<u>Excavation</u>				
	<u>Excavate trenches commencing from platform level including including earthwork, support, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides and including planking and strutting and removed surplus material from site</u>				
E	675mm wide - Maximum depth not exceeding 1.5m deep	M	42		
F	900mm wide - Maximum depth not exceeding 1.5m deep	M	37		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>Reinforced Concrete Pipe Culvert (Cont'd)</u>				
A	<u>Lean Concrete</u> 50mm thick concrete Grade 15 as described blinding under reinforced concrete pipe culvert <u>Concrete work</u> <u>Vibrated reinforced concrete Grade 20 as described filled into formwork and well packed around rod or fabric reinforcement (formwork and reinforcement measured separately) in:-</u>	M2	3		
B	Concrete surround 375mm diameter pipe culvert	M3	21		
C	Concrete surround 600mm diameter pipe culvert <u>Class F2 formwork as described to:-</u>	M3	30		
D	Sides of wall <u>Reinforcement</u> <u>A layer of steel fabric reinforcement BRC A8 weighting 3.95kg/m2 well lapped at joints (measured nett - no allowance made for laps) as described to:-</u>	M2	123		
E	Concrete Base <u>Pipe Culvert</u> <u>Supply and lay Precast concrete pipe culvert Class 'Z' as described laid to falls in concrete encasement and haunching on 150mm thick mass concrete (measured seperately) with a layer of sand on top, jointed with and including grouting, joint, concrete ring, temporary support and strutting and any other necessary and related works as per Engineer's detail drawing</u>	M2	62		
F	375mm Diameter pipe culvert	M	42		
G	600mm Diameter pipe culvert	M	37		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>SURFACE WATER DRAINAGE</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Sump</u> <u>Brick sump; with various depth constructed of 225mm thick brickwall with 20mm thick waterproof cement plastered internally and exposed surface, lean concrete, 100mm thick (Grade 20) concrete base with 1 layer BRC A8, approved 50mm dia. PVC weepholes, 20mm dia. single size gravel wrapped with approved filter cloth on both side, 50mm deep sand and silt trap on top of concrete base and including all excavation, formwork and reinforcement bar all as per Engineer's detail drawing</u> <u>For depth exceeding not exceeding 1.5m</u>				
A	Internal plan size 600mm x 600mm	NO	10		
B	Internal plan size 675mm x 675mm	NO	4		
C	Internal plan size 750mm x 750mm	NO	19		
D	Internal plan size 900mm x 900mm	NO	13		
	<u>Precast Concrete Cover for Sump</u> <u>Precast concrete sump cover slab as per manufacturer's detail including all necessary works and accessories to Engineer's approval</u>				
E	Internal plan size 600mm x 600mm	NO	10		
F	Internal plan size 675mm x 675mm	NO	4		
G	Internal plan size 750mm x 750mm	NO	19		
H	Internal plan size 900mm x 900mm	NO	13		
	<u>Entrance Slab</u>				
J	Construct and complete reinforced concrete entrance slab over existing block drain comprising of 225mm thick concrete base, 225mm thick concrete wall, 150mm thick top slab, 75mm diameter weephole at 1500mm centre, 450mm x 600mm heavy duty mild steel grating, 225mm thick parapet wall plastered and painted both side, all complete with necessary excavation, reinforcement and formwork as per Engineer's detail drawing	M	20		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>SURFACE WATER DRAINAGE</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Underground OSD Tank</u> <u>Underground On Site Detention Tank constructed of concrete box culvert with lid or equivalent on 200mm - 350mm thick hardcore and 75mm thick lean concrete complete with reinforced concrete sump with RCP outlet, screed to fall 2%, 375mm inlet pipe, openings complete with trashscreen, maintenance opening with precast concrete manhole slab cover, 300mm dia. outlet pipe, 525mm dia. Emergency outlet pipe, drainage works to final discharge pipe including all necessary site clearance and earthworks, excavation, removal of surplus materials off the site to contractor's own dump and all necessary concrete works, reinforcement and formworks, signages, all as shown in Engineer's drawing and S.O's approval :-</u>				
A	Overall size 45m (L) x 5.35m (W) x 1.65m (D)	NO	1		
	<u>Inlet and Outlet Structure</u> B Reinforced concrete outlet structure, overall size 4930mm x 2000mm x 3050mm high, comprises headwall, wingwall, apron, culvert marker post, flap gate and all necessary hardcore, lean concrete, reinforcement, formwork, excavation, and backfill including jointing to pipe culvert of 525mm diameter and 525mm diameter all as shown in the drawings (Wing Outlet 1)	NO	1		
C	Reinforced concrete outlet structure, overall size 2350mm x 2000mm x 3050mm high, comprises headwall, wingwall, apron, culvert marker post, flap gate and all necessary hardcore, lean concrete, reinforcement, formwork, excavation, and backfill including jointing to pipe culvert single of 300mm diameter all as shown in the drawings (Wing Outlet 2)	NO	1		
	<u>Drainage Final Discharge Pipe</u> D Single 450mm diameter precast concrete Class 'Z' butt joint pipe culvert complete with cast in situ concrete joint complete with reinforcement, formwork, well compacted granular material as surround and reinforced concrete cradle and including excavation and part backfill	M	27		
	<u>Connection to Existing</u> E Allow for all cost for connection and upgrading to existing surface water drainage and make good all works disturbed including clearing all necessary obstruction and remove all debris away from site to Contractor own dumping ground.	ITEM			
	<u>Testing & Commissioning</u> F Test the whole of the drainage system in the presence of the S.O. with water or by other means before trenches are filled in, make good any defects, retest on completion and leave the whole of the works in perfect working order	ITEM			
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>SURFACE WATER DRAINAGE</u> <u>(ALL PROVISIONAL) (Cont'd)</u>				
	<u>COLLECTION</u>				
	From page B.4.4/1	.	.		
	From page B.4.4/2	.	.		
	From page B.4.4/3	.	.		
	From page B.4.4/4	.	.		
	From page B.4.4/5	.	.		
	From page B.4.4/6	.	.		
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>WATER RETICULATION (ALL PROVISIONAL)</u>				
	<u>Excavate trenches not exceeding 2.0m deep commencing from platform level including earthwork, support, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides and including planking and strutting and removed surplus material from site</u>				
A	150mm diameter MSCL pipe (incoming pipe)	M	110		
B	50mm diameter MSCL pipe (domestic)	M	87		
C	25mm diameter HDPE pipe (domestic)	M	10		
	<u>Backfilling (Road Crossing)</u>				
D	Well compacted granular material as described laid in trench under and surround pipe	M3	10		
	<u>Backfilling (Normal ground)</u>				
E	Selected material free from stone or other hard material as described laid in trench under and surround pipe	M3	4		
	<u>Mild Steel Concrete Lining Pipe (MSCL)</u>				
	<u>Mild steel concrete lining pipes to BS 534 with internal cement lining and protected externally with reinforced asbestos felt or fibre glass felt jointed with cast iron "Gibault" joints as specified including all necessary thrust block</u>				
F	150mm diameter pipe laid in trench (incoming pipe)	M	110		
G	50mm diameter pipe laid in trench (domestic)	M	87		
H	<u>Extra for</u> 150mm diameter x 90 degree bend	No	11		
J	<u>Extra for</u> 150mm diameter x 45 degree bend	No	15		
K	<u>Extra for</u> 150mm diameter Tee	No	5		
	<u>High density polyethylene Pipe (HDPE)</u>				
	<u>High density polyethylene pipes to BS 534 with internal cement lining and protected externally with reinforced asbestos felt or fibre glass felt jointed with cast iron "Gibault" joints as specified including all necessary thrust block</u>				
L	25mm diameter pipe laid in trench (domestic)	M	10		
M	<u>Extra for</u> 25mm diameter x 45 degree bend	No	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WATER RETICULATION</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Sluice Valve</u> <u>Cast iron fitting and specials to B.S 2035 and S.A.J's approval including extension pieces, all fixing accessories and jointing to mild steel pipes</u> A 150mm diameter sluice valve with double flanged and jointing to pipe (measured separately). <u>Air Valve</u> B 25mm diameter double orifice ductile iron air valve complete with fittings; to 150mm diameter mild steel pipe to engineer detail drawing <u>Valve Chamber</u> <u>Quality control reinforced vibrated precast concrete Grade 20 including all moulds, hoisting and setting in position</u> C Precast concrete standard indication post valve overall size 230mm x 62mm x 1000mm high, splayed at top edge, reinforced with and including 4 Nos.6mm diameter mild steel rods as main bars and 2Nos. 6mm diameter mild steel rod as links and stirrups and all lettering to be counter sunk 6mm below and including all necessary excavation and painting D Precast concrete sluice valve chamber internal size 605mm x 530mm x 1000mm deep in 2 nos top section complete with approved moulds and mild steel rod reinforcement, compacted sand fill and reinforced concrete slab grade 25 with two layer BRC A10 , precast concrete cover slab and all including all necessary excavation and painting as per Engineer's drawing <u>S-Bend</u> E Supply and install S-bend for 150mm diameter pipe including all the necessary pipe fittings, valves, concrete platform, thrust block , etc. All as shown in Engineer's detail drawing.	NO	7		
		NO	1		
		No	7		
		No	7		
		NO	2		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WATER RETICULATION</u> <u>(ALL PROVISIONAL) (Cont'd).</u>				
	<u>Pillar hydrant</u>				
A	Standard 150mm ductile iron pillar type double outlet fire hydrant install complete with and including 1no. 100mm diameter ductile iron double flanged short piece, 100mm diameter double flanged duckfoot bent on 560mm x 480mm x 460mm precast concrete chamber with anchor block and sand backfill and painting all exposed surfaces with an approved paint including all necessary extra excavation and disposal of surplus excavated material all as per Engineer's drawing	NO	2		
	<u>Bulk Water Meter</u>				
B	Supply and fix fire hydrant bulk meter including sluice gate valves, t.pot strainer, flange adaptor, straightener double flanges, straighteners, bends, concrete pipe support, thrust block, meter stand and all accessories and jointing to 150mm diameter pipe according to SAJ's approval	NO	1		
C	Supply and fix bulk meter including sluice gate valves, t.pot strainer, flange adaptor, straightener double flanges, straighteners, bends, concrete pipe support, thrust block, meter stand and all accessories and jointing to 150mm diameter pipe according to SAJ's approval	NO	1		
	<u>Marker post</u>				
	<u>Precast concrete Grade 20 as described marker post to the SAJ standard including excavation and painting as per Engineer's detail and S.O's approval</u>				
D	Pillar Hydrant	NO	2		
E	Sluice Valve	NO	7		
F	Air Valve	NO	1		
	<u>Connection To Main Pipes</u>				
G	Labour and material to connect new pipes to existing pipes including all necessary pipes, fittings, road cutting, excavation, filling and making good including all necessary works	ITEM			
	<u>Testing and Commissioning</u>				
H	Allow for sectional hydraulic testing of piping during laying and on completion all as described and make good any defects and leave the whole in prefect working order to the entire satisfaction of the S.O.	ITEM			
J	Allow for sterilizing and flushing the whole of the reticulation pipeline to the approval of the S.O.	ITEM			
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WATER RETICULATION</u> <u>(ALL PROVISIONAL) (Cont'd).</u>				
	<u>COLLECTION</u>				
	From Page B.4.5/1	-	-		
	From Page B.4.5/2	-	-		
	From Page B.4.5/3	-	-		
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>SEWERAGE SYSTEM (ALL PROVISIONAL)</u></p> <p><u>Notes :</u></p> <p>All excavations are measured from formation level unless otherwise stated</p> <p><u>Excavate trench for VCP pipe commencing from formation level, get out, part return, fill in and compacted with selected excavated material as specified and remainder deposit, spread and level as directed</u></p>				
A	225mm diameter VCP pipe not exceeding 2.0m deep	M	54		
B	225mm diameter VCP pipe not exceeding 4.0m deep	M	33		
	<u>Class 'A' Bedding</u>				
C	525mm x 213mm thick Grade 20 reinforced concrete and tapped with 525mm x 213mm thick granular bedding including formwork, remainder filled and tapped with well compacted backfill	M	54		
	<u>Class 'B' Bedding</u>				
D	525mm x 213mm thick compacted crusher run bedding and tapped with 525mm x 213mm thick compacted backfill including formwork, remainder filled and tapped with well compacted backfill	M	33		
	<u>Pipework</u>				
	<u>Vitrified clay sewer pipe with flexible rubber ring joint with pipe and fitting comply with MS1061:1999 and BS EN295:1991 as described laid to fall in trench including all necessary short lengths, elbows, bends, tees, reducers, WYE-Junction to each unit, socket, End Caps, tapping and connection to nearest tapping point and the like complete all as per manufacturer's instructions, Engineers Drawing and S.O approval</u>				
E	225mm diameter pipe laid to fall in trench (measured separately)	M	87		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>SEWERAGE SYSTEM (ALL PROVISIONAL)</u> <u>(Cont'd)</u></p> <p><u>Precast Concrete Manhole</u></p> <p><u>Supply and install 'SIRIM' approved precast reinforced concrete chamber in position and installed strictly in accordance with the manufacturer's instructions including all excavation backfilling and remove surplus excavated materials from site, complete with precast R.C chamber ring, precast R.C taper top , 150mm thick concrete surround grade 25, precast R.C make up ring, 400mm (min) thick concrete base Grade 25 with mesh fabric A193 and formwork, 50mm thick blinding, heavy duty D.I frame and cover, fill with non-shrink cementitious material/premix, form channel using 12mm thick high Alumina Cement Mortar, all necessary accessories, complete all as shown in detail Engineer's Drawing No. and S.O approval</u></p> <p><u>For depth not exceeding 1.5m</u></p>				
A	1200mm diameter (internal size)	NO	6		
	<u>For depth not exceeding 2.0m</u>				
B	1200mm diameter (internal size)	NO	6		
	<u>Testing</u>				
C	Allow for testing with CCTV the whole of the sewerage system in the present of the S.O. or his representative or by other means before trenches are completely filled in, make good any default test again on completion including discharging to the septic tank (measure separately) as engineer drawing complete with submission of testing report and leave the whole system in perfect working order to the entire satisfaction of the S.O. and the Local Authorities.	ITEM			
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>SEWERAGE SYSTEM (ALL PROVISIONAL)</u> <u>(Cont'd)</u>				
	<u>Septic Tank</u>				
A	Supply and deliver one set of Septic Tank (30PE) or other equal and approved sewerage system complete with accessories, with all filtration chamber and separation chamber and all installation works, including all necessary excavation, lean concrete, concrete base, top slab, earth backfill and compaction to ground level, installation for UPVC and G.I piping within the system, connection from inspection chamber, all as per manufacturer's instruction and engineer's approval complete with testing and commissioning of the overall system and complete with warranty.	ITEM			
	<u>Connection</u>				
B	The Contractor shall liaise on with local authority due to the termination of sewer pipe to new septic tank including excavation, jointing, backfill and making good defected works and leave in perfect working order	ITEM			
To Collection					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>SEWERAGE SYSTEM (ALL PROVISIONAL)</u> <u>(Cont'd)</u>				
	<u>COLLECTION</u>				
	From Page B.4.6/1	-	-		
	From Page B.4.6/2	-	-		
	From Page B.4.6/3	-	-		
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
A	<p><u>SPAH SYSTEM (ALL PROVISIONAL)</u></p> <p><u>SPAH Tank</u></p> <p>Supply and install approved 300 litre SPAH Tank overall size 1170mm x 1170mm x 1372mm high (H) PE - Polyethylene laid on 600mm high RC plinths complete with water filter, over flow pipe, isolator, first fluch and all necessary accessories, piping and plumbing system all as per manufacturing detail and Engineer's detail.</p>	NO	1		
	TO SUMMARY				

BILL NO. 4.9 - EXTERNAL WORK OUTSIDE BOUNDARIES (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL)</u> <u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL)</u> <u>Roadworks</u>				
A	Excavate to road formation level average 500mm deep commencing from formation level and remove from site	M2	413		
B	Grade over surface of excavation and filling to gradients crossfalls and rolled as described	M2	413		
C	50mm thick sand and compacted sub base (CBR>20%)	M2	413		
D	300mm thick (consolidated thickness) of crusher rock as road base laid in layers of 150mm thick each, spread, levelled and rolled as described (CBR>80%)	M2	413		
E	Prepare and apply one layer of bituminous prime coat or dense bituminous macadam 80 at the rate 0.25 to 0.55 litres per square metre	M2	1,292		
F	65mm thick asphaltic concrete binder course (ACB 20) as described, spread, levelled and rolled to falls and chamber	M2	1,292		
G	Prepare and apply one layer of bituminous tack coat or dense bituminous macadam 80 at the rate 0.25 to 0.55 litres per square metre	M2	1,292		
H	50mm thick asphaltic concrete wearing course base course premix (ACW 14) as described	M2	1,292		
J	Cutting in and bonding new premix road to existing road and including labour and material for making good works	M	100		
	<u>Existing road</u>				
K	Scrap, remove and dispose the top layer of existing road and make good any defect and leave the whole in perfect working order to the entire satisfaction of the S.O.'s in order to resurface the road	M2	879		
	To Collection				

BILL NO. 4.9 - EXTERNAL WORK OUTSIDE BOUNDARIES (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Road Kerb</u>				
A	Excavate trench for road kerb base 230mm wide and average 400mm deep get out, part return, fill in and ram and remove surplus materials from site	M	288		
B	Ditto curved to varying radius	M	66		
C	100mm thick (consolidated thickness) of crusher run base, spread, levelled and rolled as described	M	288		
D	Ditto curved to varying radius	M	66		
	<u>Cast-in-situ low kerb with channel piece as described laid on mass concrete bedding on compacted hardcore surfaces including blanket, formwork, moulds, angles, ends, intersection, chamfered top, rebated sides, finished fair on exposed faces all as per Engineer's detail drawing</u>				
E	229mm wide x 280mm high kerb with one side batter and rounded on one edge (Type A)	M	264		
F	Ditto curved to varying radius	M	63		
G	229mm wide x 300mm high kerb with one side batter and rounded on one edge (Type B)	M	24		
H	Ditto curved to varying radius	M	3		
J	<u>Extra Over</u> for kerb with inlet opening with 2000mm c/c	NO	132		
K	Prepare and paint two coats non reflective road paint of black and white girth 589mm on road kerb	M	354		
	<u>ROAD GULLY</u>				
L	Road gully overall size 650mm x 450mm x 475mm high precast road gully including excavation, and forming opening for 225mm diameter stormwater pipe and discharge to nearest drain/ thrust block and complete with precast concrete grating all as per engineer detail drawing	NO	59		
	To Collection				

BILL NO. 4.9 - EXTERNAL WORK OUTSIDE BOUNDARIES (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>ROAD FURNITURE</u> <u>Prepare and apply one coat primer and one coat reflectorised thermoplastic road paint</u>				
A	Prepare and paint white thermoplastic road paint in 150mm wide edge line on finished road surface	M	184		
B	Prepare and paint white thermoplastic road paint in 100mm wide broken line on finished road surface	M	54		
C	Prepare and paint white thermoplastic road paint in 300mm wide stop line on finished road surface	No	3		
D	Prepare and paint white thermoplastic road paint in single arrow line on finished road surface	No	5		
E	Prepare and paint white thermoplastic road paint in triple arrow line on finished road surface	No	2		
F	Prepare and paint white thermoplastic road paint in single turning arrow line on finished road surface	No	1		
G	Prepare and paint white thermoplastic road paint in motorcycle parking lines overall size 2.00m x 1.00m on finished road surface	No	11		
H	Prepare and paint white thermoplastic road paint in car parking lines overall size 5.00m x 2.50m on finished road surface as per detail drawing	No	37		
J	Prepare and paint white thermoplastic road paint in car parking lines for OKU overall size 6.00m x 3.00m on finished road surface as per detail drawing	No	2		
K	Prepare and paint white thermoplastic road paint in zebra crossing line on finished road surface	M2	59		
	<u>WARNING TRAFFIC SIGNS</u> <u>Supply and install standard reflectorised traffic signs (regulatory and warning signs) mounted on one tubular steel post including bolts, nuts, concrete base and other ancillary works as per Engineer's drawing</u>				
L	'BERHENTI' Sign	NO	3		
M	'PARKING' Sign	NO	3		
N	'PARKING OKU' Sign	NO	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>SURFACE WATER DRAINAGE (ALL PROVISIONAL)</u></p> <p><u>Reinforced Concrete Pipe Culvert</u></p> <p><u>Excavation</u> <u>Excavate trenches commencing from platform level including including earthwork, support, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides and including planking and strutting and removed surplus material from site</u></p> <p>A 900mm wide - Maximum depth not exceeding 1.5m deep M 71</p> <p><u>Lean Concrete</u></p> <p>B 50mm thick concrete Grade 15 as described blinding under reinforced concrete pipe culvert M3 3</p> <p><u>Concrete work</u> <u>Vibrated reinforced concrete Grade 20 as described filled into formwork and well packed around rod or fabric reinforcement (formwork and reinforcement measured separately) in:-</u></p> <p>C Concrete surround 600mm diameter pipe culvert M3 58</p> <p><u>Class F2 formwork as described to:-</u></p> <p>D Sides of wall M2 128</p> <p><u>Reinforcement</u> <u>A layer of steel fabric reinforcement BRC A8 weighting 3.95kg/m2 well lapped at joints (measured nett - no allowance made for laps) as described to:-</u></p> <p>E Concrete Base M2 64</p> <p><u>Pipe Culvert</u> <u>Supply and lay Precast concrete pipe culvert Class 'Z' as described laid to falls in concrete encasement and haunching on 150mm thick mass concrete (measured seperately) with a layer of sand on top, jointed with and including grouting, joint, concrete ring, temporary support and strutting and any other necessary and related works as per Engineer's detail drawing</u></p> <p>F 600mm Diameter pipe culvert M 71</p>				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>SURFACE WATER DRAINAGE (ALL PROVISIONAL)</u> <u>(Cont'd)</u></p> <p><u>Sump</u></p> <p>Brick sump; with various depth constructed of 225mm thick brickwall with 20mm thick waterproof cement plastered internally and exposed surface, lean concrete, 100mm thick (Grade 20) concrete base with 1 layer BRC A8, approved 50mm dia. PVC weepholes, 20mm dia. single size gravel wrapped with approved filter cloth on both side, 50mm deep sand and silt trap on top of concrete base and including all excavation, formwork and reinforcement bar all as per Engineer's detail drawing</p> <p><u>For depth exceeding not exceeding 1.5m</u></p>				
A	<p>Internal plan size 900mm x 900mm</p> <p><u>Precast Concrete Cover for Sump</u></p> <p><u>Precast concrete sump cover slab as per manufacturer's detail including all necessary works and accessories to Engineer's approval</u></p>	NO	6		
B	<p>Internal plan size 900mm x 900mm</p> <p><u>Connection to Existing</u></p>	NO	6		
C	<p>Allow for all cost for connection and upgrading to existing surface water drainage and make good all works disturbed including clearing all necessary obstruction and remove all debris away from site to Contractor own dumping ground.</p> <p><u>Testing & Commissioning</u></p>	ITEM			
D	<p>Test the whole of the drainage system in the presence of the S.O. with water or by other means before trenches are filled in, make good any defects, retest on completion and leave the whole of the works in perfect working order</p>	ITEM			
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>WATER RETICULATION (ALL PROVISIONAL)</u> <u>Excavate trenches not exceeding 2.0m deep commencing from platform level including earthwork, support, get out, part return, fill in, well ram and remainder load and cart away from site, level, grade and ram bottom, trim sides and including planking and strutting and removed surplus material from site</u>				
A	150mm diameter MSCL pipe (incoming pipe) <u>Backfilling (Road Crossing)</u>	M	13		
B	Well compacted granular material as described laid in trench under and surround pipe <u>Backfilling (Normal ground)</u>	M3	2		
C	Selected material free from stone or other hard material as described laid in trench under and surround pipe <u>Mild Steel Concrete Lining Pipe (MSCL)</u> <u>Mild steel concrete lining pipes to BS 534 with internal cement lining and protected externally with reinforced asbestos felt or fibre glass felt jointed with cast iron "Gibault" joints as specified including all necessary thrust block</u>	M3	1		
D	150mm diameter pipe laid in trench (incoming pipe)	M	13		
E	<u>Extra for</u> 150mm diameter End cap <u>Sluice Valve</u> <u>Cast iron fitting and specials to B.S 2035 and S.A.J's approval including extension pieces, all fixing accessories and jointing to mild steel pipes</u>	No	1		
F	150mm diameter sluice valve with double flanged and jointing to pipe (measured separately). <u>Air Valve</u>	NO	7		
G	25mm diameter double orifice ductile iron air valve complete with fittings; to 150mm diameter mild steel pipe to engineer detail drawing	NO	1		
	To Collection				

BILL NO. 4.9 - EXTERNAL WORK OUTSIDE BOUNDARIES (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>WATER RETICULATION (ALL PROVISIONAL) (Cont'd)</u> <u>Valve Chamber</u> <u>Quality control reinforced vibrated precast concrete</u> <u>Grade 20 including all moulds, hoisting and setting in</u> <u>position</u>				
A	Precast concrete standard indication post valve overall size 230mm x 62mm x 1000mm high, splayed at top edge, reinforced with and including 4 Nos.6mm diameter mild steel rods as main bars and 2Nos. 6mm diameter mild steel rod as links and stirrups and all lettering to be counter sunk 6mm below and including all necessary excavation and painting	No	7		
B	Precast concrete sluice valve chamber internal size 605mm x 530mm x 1000mm deep in 2 nos top section complete with approved moulds and mild steel rod reinforcement, compacted sand fill and reinforced concrete slab grade 25 with two layer BRC A10 , precast concrete cover slab and all including all necessary excavation and painting as per Engineer's drawing <u>Marker post</u> <u>Precast concrete Grade 20 as described marker post to the SAJ standard including excavation and painting as per Engineer's detail and S.O's approval</u>	No	7		
C	Sluice Valve	NO	7		
D	Air Valve	NO	1		
	<u>Connection To Main Pipes</u>				
E	Labour and material to connect new pipes to existing pipes including all necessary pipes, fittings, road cutting, excavation, filling and making good including all necessary works <u>Testing and Commissioning</u>	ITEM			
F	Allow for sectional hydraulic testing of piping during laying and on completion all as described and make good any defects and leave the whole in prefect working order to the entire satisfaction of the S.O.	ITEM			
G	Allow for sterilizing and flushing the whole of the reticulation pipeline to the approval of the S.O.	ITEM			
	To Collection				

BILL NO. 4.9 - EXTERNAL WORK OUTSIDE BOUNDARIES (ALL PROVISIONAL)

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTERNAL WORK OUTSIDE BOUNDARIES</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>ROADS, CARPARK AND PAVEMENT</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>COLLECTION</u> From Page B.4.8/1 From Page B.4.8/2 From Page B.4.8/3 From Page B.4.8/4 From Page B.4.8/5 From Page B.4.8/6 From Page B.4.8/7				
	TO SUMMARY				

BILL NO. 4 - EXTERNAL WORKS (ALL PROVISIONAL)

[illegible]

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	<p><u>SITE PREPARATION</u></p> <p>Final Grading - Landscape Contractor to provide labour, transport, machinery and everything necessary to level, grade and shape suitable soil material to form the desired final grade levels as instructed by S.O. Landscape Contractor to ensure proper earth grading & fall to allow water runoff to discharge points and avoid water ponding at all areas. Works to include fine shaping, touch up, cutting, back filling, trimming etc and all necessary operations to achieve final finish levels (± 100mm of existing grade levels). (For whole entire hard and softscape areas under this contract)</p>	Lump Sum			
TO SUMMARY					

[illegible]

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	SOFTLANDSCAPE (ALL PROVISIONAL) (Cont'd)				
	AQUATIC PLANTS				
A	<p><u>Nelumbo nucifera (Lotus)</u></p> <p>Location : Lily pond</p> <p>To supply and install 580mm(H) x 596mm(Dia) clay pot to Landscape Architect's approval - 11 nos</p> <p>5 shoot per pot c/w soft clay soil</p>	Nos	11		
	TURFING				
A	<p><u>Axonopus compressus (Cow Grass) - Close Turfing</u></p> <p>To supply and lay Axonopus compressus (95 % purity), min sod size of 300mm x 300mm, with min 20mm thk root & soil intact. Sods to be laid with the gap between edge of sod to be not more than 25mm. Rate to include min. 50mm thk top soil laid over the planting area. Prior to soiling the ground shall be graded with a minimum fall of 2% to the nearest drain and or water discharge outlet to avoid water ponding. The joint between sod to be filled with suitable top dressing & compacted to achieve an even finish level. The turf shall be maintained immediately upon being laid and shall remain healthy & green throughout the contract period</p>	m2	1754		
	PLANTING OPERATION				
	<u>SOIL MIX</u>				
	To supply and lay soil mixture comprising of 3 parts top soil, 2 parts coarse river sand, 1 parts organic matter/manure and 1 kg of C.I.R.P per cubic meter or other mix approved by S.O including loading and unloading, mixing on site, filling into excavated planting holes, lightly ramming and all other works in connection. Media is to be well mixed before the planting works are carried out. The organic matter is to be clean, well-decomposed, free from smell, debris, refuse or visible fungus. The topsoil is to be from "Contractor's source" and to be approved by S.O.				
A	Soil mix for TREES (1m x 1m x 1m)	m3	48		
B	Soil mix for SHRUBS (0.3m x 0.3m x 0.3m)	m3	160		
	TO COLLECTION				

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	SOFTLANDSCAPE (ALL PROVISIONAL) (Cont'd)				
	<u>STAKING</u>				
C	Tripod Staking (for trees $\geq 75\text{mm}$ dia & all palms) To supply & install stakes for trees using 3 nos hardwood timber of 50mm x 50mm x 2400mm length each. The stakes shall be equidistant around tree and firmly driven into the ground (min 500mm in ground and 1900mm exposed). The stake shall be tied neatly and firmly. The point of contact between the trunk and staking shall be padded with suitable material & secured with plastic coated tie from three (3) different points of the tripod stake to Landscape Architect's approval	No	48		
TO COLLECTION					

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	SOFTLANDSCAPE (ALL PROVISIONAL) (Cont'd) <u>COLLECTION</u> From page B.5.2/1 From page B.5.2/2 From page B.5.2/3				
TO SUMMARY					

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	<p><u>HARDLANDSCAPE WORKS (ALL PROVISIONAL)</u></p> <p>To supply material, labour , machinery and transportation to construct and complete as per landscape plans and detail drawings of the following items:</p> <p><u>ENTRANCE STATEMENT - TERATAI POND</u> (Refer dwg : TD2305/LT/LT/HD-03: sheet no. 12)</p> <p>A <u>POND</u> To construct and complete 28120mm (L)x1650mm (W)x850mm(H) RC Teratai pond (G25/BRC A8, 2 layer) as per structure drawing refer to eng detail c/w screeding, 10 mm thk water proofing membrane layer to receive natural quartz stone apply to all part of pond (inner & outer wall). Structure to be c/w water feature system, pump and filtering system to specialist detail</p> <p>B <u>SIGNAGE</u> To supply and install 2013mm (H)x600mm thk aluminium box lettering "LAMAN TERATAI" White acrylic front cover c/w LED backlit lighting, cabling work and junction box including erect cable from control panel to specialist detail. The Lettering need to be support by 50mmx50mm MS hollow inside and attached to conc base w/ wall plug - Lighting colour : as per LA approval - Colour : White (Nippon paint or equivalent) - Font : as per LA approval</p> <p>C <u>SLAB</u> To construct and complete 28120mm (L)x400mm (W)X650mm (H) slab (G20/A6) lay on top of 75mm thk compacted gravel and ground</p> <p>D <u>CRUSHED ROCK</u> To construct and complete crushed rock laid loose c/w lawn edging.</p> <p>All works including necessary excavation, concrete work, formwork, drainage system, supporting system filtration system and all other accessories, all to the satisfaction of the S.O.</p>	m ²	50		
		LS			
		LS			
		m ²	61		
TO COLLECTION					

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONA`L) (Cont'd)				
	<u>ENTRANCE STATEMENT - TERATAI POND (Cont'd)</u>				
E	<u>POOL PUMPS/FILTERS/PIPING/ACCESSORIES</u>				
	Filtration pumpsets for filtration system as per drawing specification c/w necessary valves, fittings, neoprene vibration pad etc.				
	Pump Type : Self Priming	L/S	2		
	Pump Hp : 1.5 hp				
	Brand : Waterco/Emaux/Pentair				
	Unit : 2 Nos (1 Duty & 1 Standby)				
	Aquabiome filter c/w multiport valves, pressure gauges, glass pearl filter media and other standard accessories.				
	Filter Type : Fibreglass Hi Rate	L/S	1		
	Filter Media : Glass Pearl				
	Filter Area : 0.30 m2				
	Filter Size : 600 mm				
	All wall nozzle, skimmer, main drain, stainless steel basket strainer and others necessary accessories.	L/S	1		
F	<u>PIPING & FITTINGS</u>				
	PVC class D pipe for:				
	Suction from skimmer box to filtration pump				
	Return from sand filter to wall nozzle				
	Overflow from balancing tank to nearest discharge drainage	L/S	1		
	Backwash from sand filters to nearest discharge drainage				
	Water fountain suction from main drain to 15 nos individual Foam Jet Nozzle				
	All valves, fittings and accessories for completion of the whole system.	L/S	1		
	All puddle flanges for pipe penetration through the RC wall/ slab.	L/S	1		
	40mm ball float valve at balancing tank	L/S	1		
G	<u>ELECTRICAL WORK FOR SWIMMING POOL</u>				
	1 no. wall mounted switchboard c/w transformer, starter, time switch etc.:				
	Filtration pump , fountain pump & Underwater Light	L/S	1		
	Cabling works, from switchboard to:				
	Pumpsets (in trunking)	L/S	1		
	Underwater lights (in conduit)	L/S	1		
	Donut Fountain Light mounted underwater LED light c/w weather proof recessed junction box and transformer for pool.	L/S	11		
	TO COLLECTION				

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONA`L) (Cont'd)				
	<u>ENTRANCE STATEMENT - TERATAI POND (Cont'd)</u>				
H	<u>MAINTENANCE ACCESSORIES</u>				
	1 no. 14" flexible vacuum head.	L/S	1		
	1 no. 40mm dia x 30m length vacuum hose.	L/S	1		
	1 no. telescopic handle (extendable to 4.5m length).	L/S	1		
	1 no. leaf skimmer.	L/S	1		
	1 no. pool wash brush.	L/S	1		
	1 set water test kit for chlorine and ph value.	L/S	1		
I	<u>OTHERS</u>				
	Pressure pipe test.	L/S	1		
	Testing and commissioning inclusive of appropriate chlorine quantity during start-up.	L/S	1		
	Item not included but in the above but shown in the drawings or necessary for the successful completion and efficient operation of the installation (tenderer to list)				
	All works including necessary excavation, concrete base, formwork, and all other accessories, all to the satisfaction of the S.O.				
J	<u>PUMP HOUSE 02</u> (Refer dwg : TD2305/LT/HD-03 : sheet no. 12) To construct and complete RC underground water feature pump room at specified location complete with accessories as follows: Pump size : 2.0m(L)x2.5m(W)x1.5m(H)x1.5mm thk. RC structure to engs detail. Stainless steel main hole cover access to pump room to specialist detail. Discharge pipe and floor trap cover to determine by specialist Steel cat ladder access to pump room to specialist detail Pump room wall finish - skim and plaster Contractor to submit shop drawing before start work UV lighth ray as setralizer to special detail Backwash outlet to nearest drain to M&E or specialist detail All works including necessary excavation, concrete base, formwork drainage work, and all other accessories, all to the satisfaction of the S.O.	nos	1		
	TO COLLECTION				

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONA`L) (Cont'd)				
	<u>MINI STAGE</u>				
	<u>WATER FEATURE A</u> (Refer dwg : TD2305/LT/HD-03: sheet no. 10)				
	To construct and complete 25m (L) X 400mm (W) water feature A as follows:				
A	<u>POOL</u> <ul style="list-style-type: none"> - RC footing to engr's detail - 300mm thk RC structure (G25,BRC A8) to engr's detail on 100mm thk compacted hardcore - 250mm thk RC structure of pool base (G25,BRC A8) to engr's detail on 100mm thk compacted hardcore - Top (finishing) : 5mm thk pebble wash black color finished - floor and wall of pool (finishing) : Porcelain glazed mosaic code : HP 18184. Sheet size 300x300x5mm - 10mm waterproof membrane layer by specialist - 450mm x 450mm GI perforated cover to manufacturer's detail. - 25mm Ø inlet pipe - 50mm Ø outlet pipe discharge to nearest drain 	m²	52		
B	Filtration pumpsets for filtration system as per drawing specification c/w necessary valves, fittings, neoprene vibration pad etc. Pump Type : Self Priming Pump Hp : 1.0 hp Brand : Waterco/Emaux/Pentair Unit : 2 Nos (1 Duty & 1 Standby)	L/S	2		
C	Circulation pumpsets for water fountain system as per drawing specification c/w necessary valves, fittings, neoprene vibration pad Pump Type : Self Priming Pump Hp : 4.0 hp Brand : Waterco/Emaux/Pentair Unit : 3 Nos (2 Duty & 1 Standby) Height Fountain : 0.9 m - 1.2 m (Max)	L/S	3		
D	Fibre glass sand filter c/w multiport valves, pressure gauges, silica sand filter media and other standard accessories. Filter Type : Fibreglass Hi Rate Filter Media : Silica Sand Filter Area : 0.38 m2 Filter Size : 700 mm	L/S	1		
E	All wall nozzle, skimmer, main drain, stainless steel basket strainer and others necessary accessories.	L/S	1		
F	Foam Jet Nozzle Height 1.2 m stainless steel 304	L/S	15		
TO COLLECTION					

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONA`L) (Cont'd)				
	<u>MINI STAGE (Cont'd)</u>				
G	<u>PIPING & FITTINGS</u>				
	PVC class D pipe for: Suction from skimmer box to filtration pump Return from sand filter to wall nozzle Overflow from balancing tank to nearest discharge drainange Backwash from sand filters to nearest discharge drainage Water fountain suction from main drain to 15 nos individual Foam Jet	L/S	1		
	All valves, fittings and accessories for completion of the whole	L/S	1		
	All puddle flanges for pipe penetration through the RC wall/ slab.	L/S	1		
	40mm ball float valve at balancing tank	L/S	1		
H	<u>ELECTRICAL WORK</u>				
	1 no. wall mounted switchboard c/w transformer, starter, time switch etc.: Filtration pump , fountain pump & Underwater Light	L/S	1		
	Cabling works, from switchboard to: Pumpsets (in trunking)	L/S	1		
	Underwater lights (in conduit)	L/S	1		
	Donut Fountain Light mounted underwater LED light c/w weather proof recessed junction box and transformer for pool.	L/S	1		
I	MAINTENANCE ACCESSORIES				
	1 no. 14" flexible vacuum head.	L/S	1		
	1 no. 40mm dia x 30m length vacuum hose.	L/S	1		
	1 no. telescopic handle (extendable to 4.5m length).	L/S	1		
	1 no. leaf skimmer.	L/S	1		
	1 no. pool wash brush.	L/S	1		
	1 set water test kit for chlorine and ph value.	L/s	1		
J	<u>OTHERS</u>				
	Pressure pipe test.	L/S	1		
	Testing and commissioning inclusive of appropriate chlorine quantity	L/S	1		
	Item not included but in the above but shown in the drawings or necessary for the successful completion and efficient operation of the installation (tenderer to list)				
	TO COLLECTION				

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONA`L) (Cont'd)				
	<u>MINI STAGE (Cont'd)</u>				
K	<u>CONCRETE BENCH</u> To construct and complete 17000mm(L)x600mm(W)x450mm(H) curve bench w/ 5mm black color pebble wash finished. All works including necessary excavation, concrete base, formwork, and all other accessories, all to the satisfaction of the S.O.	Mrun	18		
L	<u>MINI STAGE</u> (Refer dwg : TD2305/LT/HL-03: sheet no. 05) To construct and complete 150mm thk RC slab (G25,BRC A6) mini stage in conc imprint (random stone pattern) and cement render (smooth finish) in various color including stainless steel strip laid on top of 150mm thk compacted hardcore. All works including necessary excavation, concrete base, formwork, and all other accessories, all to the satisfaction of the S.O.	m2	105		
M	<u>PUMP HOUSE 01</u> (Refer dwg : TD2305/LT/HD-04: sheet no. 13) To construct and complete RC underground water feature pump room at specified location complete with accessories as follows: Pump size : 2.5m(L)x2m(W)x1.5m(H)x150mm thk RC structure to engs detail. Stainless steel main hole cover access to pump room to specialist detail. Discharge pipe and floor trap cover to determine by specialist Steel cat ladder access to pump room to speciallist detail Pump room wall finish - skim and plaster Contractor to submit shop drawing before start work Backwash outlet to nearest drain to M&E/specialist detail All works including necessary excavation, concrete base, formwork, drainage system and all other accessories, all to the satisfaction of the S.O.	nos	1		
	TO COLLECTION				

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONAL) (Cont'd)				
	<u>SUNKEN PLAZA</u>				
A	<u>SUNKEN PLAZA (FLAT AREA)</u> (Refer dwg : TD2305/LT/HL-03: sheet no. 05) To construct and complete 150mm thk RC slab (G25, BRC A6) in conc imprint finish (flagstone pattern) and cement render (smooth finish) in various color including stainless steel strip laid on top of 150mm thk compacted hardcore.	m2	375		
B	<u>SEATING TERRACE</u> (Refer dwg : TD2305/LT/HD-02: sheet no. 11) To construct and complete 350mm(W)x50mm thk seating terrace as follow :- i) <u>Sunken Terrace Type 1 (seat)</u> To construct and complete 600mm(W)x150mm(H) RC steps fine broom finish including 350mm(W)x50mm thk dark brown wood-plastic composite (WPC) seating terrace c/w 100mm wide dark grey anti-slip tiles as step nosing including 6mm x 20mm St STL Cap screw drill hole w/ alum spacer laid on 150mm thk compacted hardcore ii) <u>Sunken Terrace Type 2 (stair)</u> To construct and complete 600mm(W)x150mm(H) RC steps fine broom finish c/w 100mm wide dark grey anti-slip tiles as step nosing laid on 150mm thk compacted hardcore All works including necessary excavation, concrete base, formwork, and all other accessories, all to the satisfaction of the S.O.	nos	18		
		m²	64.00		
	TO COLLECTION				

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONAL) (Cont'd)				
	<u>PLAYGROUND</u>				
A	<u>PLAY EQUIPMENT</u> (Refer dwg : TD2305/LT/HL-04: sheet no.06) To supply and install play equipment at located area a) Type 01 - SA Junior Giraffe b) Type 02 - Spring rider c) Type 03 - Spring rider d) Type 04 - Spring rider e) Type 05 - 2 seater seesaw (Model : Bird)	Nos Nos Nos Nos Nos	1 1 1 1 1		
B	<u>EPDM SEAMLESS FLOORING</u> (Refer dwg : TD2305/LT/HL-04: sheet no.06) To supply and lay 25mm thk various colour of EPDM seamless flooring finish on top of 500mm thk conc slab (G20, BRC A7) laid on 150mm thk compacted hardcore including 100mm RC bull nose kerb w/ fine plaster finish and 25mm Dia PVC pipe as weep hole at 1m c/c to nearest drain All works including necessary excavation, concrete base, formwork, and all other accessories, all to the satisfaction of the S.O.	m2	122		
	<u>ROADSIDE</u> (Refer dwg : TD2305/LT/HL-01: sheet no. 03)				
A	<u>WALKWAY AND RAMP</u> To construct and complete 1500mm(W) concrete slab (G20,BRC A6) in broom finish c/w 300mmx300mmx28mm thk directional braille tile including 10mm(W) expansion joint at every 6m c/c and RC safety bollard laid on 100mm thk compacted hardcore and 100mm RC slab under tactile panel.	mrun	152		
B	RC safety Bollard Height : 1000mm Dia : 100mm Finishes : Pebble wash c/w 10mm groove line to be painted w/ ICI paint or equivalent colour as LA approval Base : RC footing w/ BRC A5 All works including necessary excavation, concrete base, formwork, and all other accessories, all to the satisfaction of the S.O.	nos	16		
TO COLLECTION					

BILL NO. 5.3 - Hardlandscape Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONAL) (Cont'd)				
A	<u>BRaille TILE</u> (Refer dwg : TD2305/LT/HL-01: sheet no. 03) To supply and install 300mmx300mmx28mm thk braille tile on 100mm thk conc slab (G25, BRC A6) fine broom finish c/w 10mm(W) expansion joint every 6m c/c and 2 nos 1000mm(H)x100mm Dia. safety bollard laid on 100mm thk compacted crusher run Type of braille tile i) Liner ii) Hazard a) Sunken Plaza	mrn	153		
B	<u>RAILING</u> (Refer dwg : TD2305/LT/HD-02: sheet no. 10) To supply and install 2000mm(L)x900mm(H) 304 stainless steel railing as follows: - Main post : 900mm(H)x50mm(W)x25 Dia. stainless steel posts w/ hairline finish Middle post : 700mm(H)x15mm thk stainless steel pickets w/ hairline finish w/ 100mm c/c apart Top post ; 2000mm(L)x50mm Dia. stainless steel handrail w/ hairline finish Bottom post : 200mm(L)x50mm Dia. Stainless steel bottom rail w/ hairline finish. Base : 100mm(L)x100mm(W)x5mm thk stainless steel plate welded to the post and attached to ground w/ bolt and nuts to engr's detail a) Sunken plaza b) Mini stage c) Road side	mrn mrn mrn	45 27 118		
TO COLLECTION					

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	HARDLANDSCAPE WORKS (ALL PROVISIONAL) (Cont'd)				
	<u>COLLECTION</u>				
	From page B.5.3/1				
	From page B.5.3/2				
	From page B.5.3/3				
	From page B.5.3/4				
	From page B.5.3/5				
	From page B.5.3/6				
	From page B.5.3/7				
	From page B.5.3/8				
	From page B.5.3/9				
TO SUMMARY					

BILL NO. 5.4 - Lighting Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	<p><u>LIGHTING WORKS (ALL PROVISIONAL)</u></p> <p>To supply materials, transport, manpower and suitable tools and machinery to install all the following hardlandscape materials.</p> <p><u>MINI STAGE</u> (Refer dwg : TD2305/LT/LT-01: sheet no. 06) To supply and install external light fitting for:-</p> <p>A LED strip light Brand: Revolux Watt : 8.3 Type : LED Lumen : 2075 lm/m Colour : 6000k Burning hours : 50000</p> <p>B Underwater light Brand : Revolux Watt : 9w Type : LED Lumen : 810 lm Colour : 3060k</p> <p><u>SUNKEN PLAZA</u> (Refer dwg : TD2305/LT/LT-02: sheet no. 07)</p> <p>C LED strip light Brand : Revolux Watt : 8.3 Type : LED Lumen : 2075 lm/m Colour : 6000k Burning hours : 50000</p>	<p>mrn</p> <p>mrn</p> <p>mrn</p>	<p>16</p> <p>15</p> <p>186</p>		
	TO COLLECTION				

BILL NO. 5.4 - Lighting Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	<u>LIGHTING WORKS (ALL PROVISIONAL)</u> <u>LIGHTING WORKS AT SUNKEN PLAZA</u> (Refer dwg : TD2305/LT/LT-03: sheet no. 06) To supply and install external light fitting for:-				
D	LED strip light Brand : Revolux Watt : 8.3 Type : LED Lumen : 2075 lm/m Colour : 6000k Burning hours : 50000	mrun	62		
E	Underwater light Brand : Revolux Watt : 3w Watt : 3w Lumen : 165 lm Colour : 3000k	No	11		
F	<u>Flexible conduit connect to transformer box to specialist detail.</u>	LS			
G	<u>To connect and erect cable from junction box to fittings</u>	Nos	30		
H	<u>Testing and commissioning</u>	LS	1		
	TO COLLECTION				

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	<u>LIGHTING WORKS (ALL PROVISIONAL)</u>				
	<u>COLLECTION</u>				
	From page B.5.4/1				
	From page B.5.4/2				
TO SUMMARY					

BILL NO. 5.5 - Maintenance Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	<p>MAINTENANCE WORKS</p> <p>Maintenance Operation and Schedule - All maintenance shall be as per schedule which Contractor should prepare and submit to S.O. Where the specific maintenance is required but not stated, the Contractor shall refer to the S.O for directions.</p> <p>To supply material, machinery, labour, transportation and other necessary items to carry out the maintenance of all completed work which includes but not limited to the items stated below. Contractor to state the minimum number of competent, full time workers stationed daily on site during working hours for the purpose of satisfactory maintenance of the completed works.</p> <p>Unsatisfactory maintenance - It shall be the responsibility of the Contractor to write in requesting for inspection at the end of every month failing which he shall not be entitled to the maintenance claim for that month. Maintenance claim due to the Contractor shall be deducted with a recommended amount that S.O finds reasonable if the areas are found to be unsatisfactorily maintained.</p> <p>If the maintenance of any area is found to be grossly unsatisfactory, the Employer has the right to employ other parties to maintain/rectify/make good such areas and all costs incurred shall be back-charged to the contractor.</p> <p>SOFTSCAPE WORK</p> <p>Watering - watering all plant materials and quantity of water applied at all times shall be sufficient to penetrate to a minimum depth of 150mm at a rate which allows saturation of the soil. Water to be provided by contractor unless specifically stated otherwise. Frequency - daily or as when necessary.</p> <p>Weeding and Forking - keep all planting areas free from weeds and undesirable vegetation & loosen the soil around the base by methods and materials approved by the S.O. Herbicides are prohibited. Frequency - at least once a month or as and when necessary.</p> <p>Pest and Disease control - to treat plants found to be infected by any disease or pest using the appropriate method/materials approved by the S.O and take all necessary precaution/remedial action to contain the spread of the infection to other plants. Frequency - regular monitoring, treatment as & when necessary.</p>	<p>month</p> <p>no. of full time workers</p>	12		
A					
C					
C					
TO COLLECTION					

BILL NO. 5.5 - Maintenance Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	MAINTENANCE WORKS (Cont'd) Pruning and Shaping - The amount of pruning shall be limited to the minimum necessary to remove dead or injured twigs and branches and or compensate for the loss of roots as a result of transplanting and or to achieve the desired form & shape of the plant. Frequency - for shrub - at least once a month or as & when necessary. For trees, at least once in 3 months to shape & balance canopy. Fertilizer Application - Application of commercial inorganic fertilizer (Behn Mayer or approved equivalent) of a complete formula 15:15:15 for greens, 12:12:17+2 for flowering plants or otherwise as specified by the S.O at a rate recommended by the manufacturer. Fertilizer shall be uniform in composition, dry and free flowing. Turf Fertilizer Rotation :- 1. Zoysia & Axonopus (Behn Mayer or approved equivalent) - Fortnightly 2. Organic compost - Every 3 months Replacement of Plants - Dead/unhealthy/missing plants are to be replaced with true to type and size or as specified by the S.O in the event of non-availability of spec. The plant shall be replaced immediately or latest within 1 month upon being instructed. Any trees replaced during the last 2 months of DLP shall have the maintenance extended by additional 3 months to ensure survival. Frequency - monthly inspection and replacement as necessary. Staking and Guys - To inspect, replace, adjust all staking, padding & ties to ensure proper and safe support for the tree without any injury to the trunk. To ensure it is not a safety hazard. Frequency - at least once a month or as necessary. Grass Cutting - To cut the turf not more than one - third of the blade at any one time and ensure no overcutting resulting in bare or brown patches. Turf clipping are to be removed and disposed immediately. Frequency - fortnightly for Zoysia and Axonopus as well. Rubbish Removal - All waste / rubbish arising shall be continuously and promptly removed daily and disposed off site. All reasonable precaution should be taken to avoid damage to existing structures, plants and grass. Frequency - daily. Vandalism/ Damages - During the DPL, the Contractor is required to replaced any dying or vandalized / damaged plants either by human or animal to the original type and true to the size at his own cost and it is the Contractor's responsibility for the safe custody of all the trees, shrubs and plants etc until it is handed over to the Employer after maintenance period expires.				
D					
E					
F					
G					
H					
I					
J					
TO COLLECTION					

BILL NO. 5.5 - Maintenance Works

Item	Description	Unit	Qty	Rate (RM)	Amount (RM)
	MAINTENANCE WORKS (Cont'd)				
	<u>COLLECTION</u>				
	From page B.5.5/1				
	From page B.5.5/2				
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>AIR CONDITIONING AND MECHANICAL VENTILATION SYSTEM (ALL PROVISIONAL)</u></p> <p><u>GENERAL NOTES</u></p> <p>This portion of work shall be carried out by a Registered Mechanical Contractor. All air conditioning and mechanical ventilation installation works must comply with the relevant authorities' requirements, including Jabatan Keselamatan dan Kesihatan Pekerjaan (DOSH) regulations, and adhere strictly to the approved drawings, specifications, and standards.</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Air Conditioning System - Split Unit System</u></p> <ul style="list-style-type: none"> • Non-inverter • R32 Refrigerant • DOL Starter • Remote and Wired Control 				
A	Bilik Kawalan & Keselamatan / Pejabat • ID: FCU-01 to CU-01 • Minimum Capacity: 22,500 BTU/hr	NO	1		
B	Perpustakaan Mini Digital • ID: FCU-02 to CU-02 • Minimum Capacity: 9,500 BTU/hr	NO	1		
C	Bilik Komputer • ID: FCU-03 to CU-03 • Minimum Capacity: 9,500 BTU/hr	NO	1		
D	Ruang Serbaguna • ID: FCU-04 to CU-04 • Minimum Capacity: 28,600 BTU/hr	NO	1		
E	Bilik Mesyuarat • ID: FCU-05&06 to CU-05&06 • Minimum Capacity: 22,500 BTU/hr	NO	1		
	To Collection				

BILL NO. 6.1 - AIR CONDITIONING AND MECHANICAL VENTILATION SYSTEM

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>AIR CONDITIONING AND MECHANICAL VENTILATION SYSTEM (ALL PROVISIONAL) (Cont'd)</u> <u>Preliminary Works, Testing & Commissioning</u>				
A	Liason with Main Contractor for coordination and preliminary works, hacking, painting, opening for proper completion of the installation.	L/S	-		
B	Submission of 5 Sets of Method Statement of Installation, Testing and commisioning for consultant approval and record.	L/S	-		
C	Submission of 2 Sets of Sample Material c/w List of Material, Product Certificate (SIRIM / EMAL) & Catalogues before commencement of installation for consultant approval and record.	L/S	-		
D	Submission of 5 Sets of Shop Drawing (Proposed & coordination drawing and detail installation) before commencement of installation for consultant approval and record.	L/S	-		
E	Submission of 3 Sets of coordination ACMV System drawing between civil & structure, Achitecture & Other M&E Trades before commencement of installation for consultant approval and record.	L/S	-		
F	Balancing, calibration, testing and commisioning of the entire system to the satisfaction of S.O / Consultant	L/S	-		
G	Service & maintenance as stated in contract specification during the whole Defect Liability Period	L/S	-		
H	Submission of 6 sets (5sets Blue print,1 set linen) of 'As Built Drawing' c/w softcopy(cd-rom) and 6 sets Hard Cover Operation Maintenance Manual' after completion of installation for consultant approval and record.	L/S	-		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>AIR CONDITIONING AND MECHANICAL VENTILATION SYSTEM (ALL PROVISIONAL)</u>				
	<u>COLLECTION</u>				
	From Page B.6.1/1	.	.		
	From Page B.6.1/2	.	.		
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>COLD WATER AND SANITARY PLUMBING SYSTEM</u> <u>(ALL PROVISIONAL)</u></p> <p><u>Notes:-</u></p> <p>This portion of work shall be carried out by a Registered Mechanical Contractor. All cold water and sanitary plumbing installation works must comply with Suruhanjaya Perkhidmatan Air Negara (SPAN) and Syarikat Air Johor (SAJ) requirements, regulations, and guidelines, and adhere strictly to the approved drawings, specifications, and standards.</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications. Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Cold Water System - Incoming Pipe</u> • HDPE Pipe Class PN12.5</p> <p>A Bulk Meter To All Location as per drawing • 50mm dia.</p> <p><u>Cold Water System - Water Storage Tank</u> • Polyethylene (PE) Circular Tank</p> <p>B Tandas • Effective Capacity: 250 Gal (1,363 L) • Size: To manufacturer's design and to adapt with site condition</p> <p><u>Cold Water System - Dropper Pipe</u> • UPVC Pipe Class E</p> <p>C Tandas (P) i. 25mm dia. ii. 40mm dia.</p> <p>D Tandas (L) i. 25mm dia. ii. 40mm dia.</p> <p>E Tandas (OKU) & Wash Basin At Taman Permainan i. 32mm dia.</p> <p>F Surau (L) & Surau (P) i. 25mm dia.</p>				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>COLD WATER AND SANITARY PLUMBING SYSTEM</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Cold Water System - Distribution Pipe</u> • UPVC Pipe Class E				
A	Tandas (P)				
	i. Wash Basin	PTS	4		
	ii. Water Closet	PTS	4		
	iii. Bidet	PTS	4		
B	Tandas (L)				
	i. Wash Basin	PTS	4		
	ii. Water Closet & Urinal	PTS	6		
	iii. Bidet	PTS	4		
C	Tandas (OKU) & Wash Basin At Taman Permainan				
	i. Wash Basin	PTS	4		
	ii. Water Closet	PTS	1		
	iii. Bidet	PTS	1		
D	Surau (L) & Surau (P)				
	i. Water Tap	PTS	4		
E	Pantry				
	i. Kitchen Sink	PTS	1		
F	Rumah Sampah				
	i. Water Tap	PTS	1		
	<u>Sanitary Plumbing - UPVC Aboveground Soil & Waste Pipe</u> • UPVC Pipe Class E				
G	Tandas (P)				
	i. Wash Basin - 36mm dia. UPVC Pipe (BS4515)	PTS	4		
	ii. Water Closet - 110mm dia. UPVC Brown Pipe (BS4660)	PTS	4		
	iii. Floor Trap - 82mm dia. UPVC Brown Pipe (BS4660)	PTS	5		
H	Tandas (L)				
	i. Wash Basin - 36mm dia. UPVC Pipe (BS4515)	PTS	4		
	ii. Water Closet & Urinal - 110mm dia. UPVC Brown Pipe (BS4660)	PTS	6		
	iii. Floor Trap - 82mm dia. UPVC Brown Pipe (BS4660)	PTS	5		
J	Tandas (OKU) & Wash Basin At Taman Permainan				
	i. Wash Basin - 36mm dia. UPVC Pipe (BS4515)	PTS	4		
	ii. Water Closet - 110mm dia. UPVC Brown Pipe (BS4660)	PTS	1		
	iii. Floor Trap - 82mm dia. UPVC Brown Pipe (BS4660)	PTS	2		
K	Surau (L) & Surau (P)				
	i. Floor Trap - 82mm dia. UPVC Brown Pipe (BS4660)	PTS	2		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>COLD WATER AND SANITARY PLUMBING SYSTEM</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Sanitary Plumbing - UPVC Aboveground Soil & Waste Pipe</u> <u>(Cont'd)</u> <ul style="list-style-type: none"> UPVC Pipe Class E 				
A	Pantry				
	i. Kitchen Sink - 36mm dia. UPVC Pipe (BS4515)	PTS	1		
	ii. Floor Trap - 82mm dia. UPVC Brown Pipe (BS4660)	PTS	1		
B	Rumah Sampah				
	i. Floor Trap - 82mm dia. UPVC Brown Pipe (BS4660)	PTS	6		
	<u>Sanitary Plumbing - Floor Trap</u> <ul style="list-style-type: none"> UPVC-Type Floor Trap 				
C	Tandas (P)	NO	5		
D	Tandas (L)	NO	5		
E	Tandas (OKU) & Wash Basin At Taman Permainan	NO	2		
F	Surau (L) & Surau (P)	NO	2		
G	Pantry	NO	1		
H	Rumah Sampah	NO	6		
	<u>Sanitary Plumbing - Gully Trap</u> <ul style="list-style-type: none"> UPVC-Type Gully Trap include pipe connection to Inspection Chamber 				
J	Blok Tandas	NO	3		
K	Blok Pejabat	NO	1		
L	Rumah Sampah	NO	1		
	<u>Sanitary Plumbing - Inspection Chamber</u> <ul style="list-style-type: none"> Precast / Cast In-situ 				
M	Blok Tandas	NO	3		
N	Blok Pejabat	NO	1		
P	Rumah Sampah	NO	1		
	<u>Sanitary Plumbing - Vetrified Clay Pipe (Underground)</u> <ul style="list-style-type: none"> VC Pipe (BS65) 				
Q	Connection to / in-between Inspection Chambers and First Manhole <ul style="list-style-type: none"> 150mm dia. 	M	30		
	<u>Vent Pipe</u> <ul style="list-style-type: none"> 82mm dia. UPVC Pipe Class E (BS4660) include vent cowl 	LOT	1		
R	Blok Tandas				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>COLD WATER AND SANITARY PLUMBING SYSTEM (ALL PROVISIONAL) (Cont'd)</u>				
A	Liason with Main Contractor for coordination and preliminary works, hacking, painting, opening for proper completion of the installation.	L/S	-		
B	Submission of 5 Sets of Method Statement of Installation, Testing and commisioning for consultant approval and record.	L/S	-		
C	Submission of 2 Sets of Sample Material c/w List of Material & commencement of installation for consultant approval and record.	L/S	-		
D	Liason with Local Authority (JKKP, BOMBA, etc) submit relevant application Form and pay connection & Inspection Fee until obtaining of approval/supply.	L/S	-		
E	Submission of 5 Sets of Shop Drawing (Proposed & coordination drawing and detail installation) before commencement of installation for consultant approval and record.	L/S	-		
F	Service & maintenance for the Cold Water System during the whole Defect Liability Period	L/S	-		
G	Balancing, calibration, testing and commisioning of the entire system to the satisfaction of S.O / Consultant	L/S	-		
H	Submission of 6 sets (5sets Blue print,1 set linen) of 'As Built Drawing' c/w softcopy(cd-rom) and 6 sets Hard Cover Operation Maintenance Manual' after completion of installation for consultant approval and record.	L/S	-		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>COLD WATER AND SANITARY PLUMBING SYSTEM</u> <u>(ALL PROVISIONAL) (Cont'd)</u>				
	<u>COLLECTION</u>				
	From Page B.6.2/1	.	.		
	From Page B.6.2/2	.	.		
	From Page B.6.2/3	.	.		
	From Page B.6.2/4	.	.		
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>INFRASTRUCTURE WORKS</u> <u>(ALL PROVISIONAL)</u></p> <p>This portion of work shall be carried out by a Registered Electrical Contractor. All electrical infrastructure installation works must comply with Suruhanjaya Tenaga (ST) regulations, the requirements of Tenaga Nasional Berhad (TNB), Telekom Malaysia (TM), and other relevant authorities. The works shall strictly adhere to the approved drawings, specifications, and standards, ensuring proper coordination and execution to meet the satisfaction of the Supervising Officer (SO).</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Telecommunication Infrastructure Works</u></p> <p><i>Final quantities shall be measured upon completion and prices will be adjusted accordingly.</i></p> <p>Connection For Existing Manhole</p> <p><i>Rates shall include for all operations necessary for the design, manufacture, testing, supply, delivery, installation etc. as per drawings</i></p> <p><i>To excavate manhole modification and connecting the extended manhole and ducts c/w all other necessary works as site condition, requirement and specification excavation, back-filled with full-sand, embedding, compaction & reinstatement to original road surface as per specification & requirement of Local Authority</i></p> <p><u>Precast Manhole</u></p> <p>Rates shall include for all operations necessary for the design, manufacture, testing, supply, delivery, installation etc. as per drawings.</p>				
A	JRC7(M) precast telephone manhole c/w manhole cover, sumphole, anchor iron bracket, cable bearer, temporary duct seal and all accessories as per detail drawings (approved by TM)	NO	2		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>INFRASTRUCTURE WORKS (ALL PROVISIONAL) (Contd)</u>				
	<u>Underground Ducts</u>				
	<i>Rates shall include for the supply and laying of underground ducts including trenching, jointing (using proper collars), crossing markers, disposal of surplus material, making good of site surface as per drawing and Local Authority requirement and to the satisfaction of client/consultant</i>				
A	2 Ways 50mm dia. PVC telephone pipe c/w, warning tape and full sand backfill including 5mm dia nylon draw rope for each laid underground ducts as specification and requirement from existing manhole to JRC7	M	50		
B	2 Ways 50mm dia. PVC telephone pipe c/w, warning tape and full sand backfill including 5mm dia nylon draw rope for each laid underground ducts as specification and requirement from proposed JRC7 to proposed JRC7	M	25		
C	2 Ways 50mm dia. PVC telephone pipe c/w, warning tape and full sand backfill including 5mm dia nylon draw rope for each laid underground ducts as specification and requirement from JRC7 to telephone pit	M	15		
D	To supply and install Pit c/w cover as per drawing and specification.	NO	1		
	<u>TNB Compact Substation</u>				
	<i>Supply, lay and install the following items as specified in the PIAT and drawing c/w all accessories as per as TNB specification and requirement including excavation, backfilling, compaction, make good, etc. to provider's requirement and S.O. or his representatives approvals and satisfactions.</i>				
E	Substation signboard, signage "DILARANG MASUK" & "BAHAYA VOLTAN TINGGI" as per TNB latest specifications and approved drawings	LOT	1		
F	Earth bar using 50mm x 6mm tinned copper bar mounted on porcelain insulator c/w transparent protective cover and housing	LOT	1		
G	25mm x 3mm copper tape with clamp connecting to the earth bar and all accessories	LOT	1		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>INFRASTRUCTURE WORKS (ALL PROVISIONAL) (Contd)</u>				
	<u>TNB Compact Substation (Cont'd)</u>				
A	Copper conductor jointing clamp c/w all accessories	LOT	1		
B	Copper rod and earthing exothermic welding termination for earthing system as per requirement until to obtain earthing test result or conceptual technical guidance stated below:- Min. Earth Electrode: 2 Nos/ earth chamber Min. Earth chamber: 4 Nos reading must <3ohm	LOT	1		
C	4 nos 2 layer 150mm PVC Class B PN6 pipe to be extend beyond drain and kerb of main road (for LV incoming cable)	LOT	1		
D	3 nos 2 layer 150mm PVC Class B PN6 pipe to be extend beyond drain and kerb of main road (for HT incoming cable)	LOT	1		
E	Premix area plinth c/sub as follows specifications:- - 150mm Crusher-run (compacted) with one layer Bituminous Prime Coat (on top) - 60mm Premix	LOT	1		
F	Transformer plinth to fill with compact sand as per TNB latest specifications	LOT	1		
G	Base c/sub to fill in with specifications as follows:- - 200mm Thick Compacted Crusher run - 50mm Thick Compacted Sand Bedding	LOT	1		
H	Precast concrete base for compact sub c/w all necessary works & accessories as per TNB approval, specifications facility & requirement	LOT	1		
J	Anti-climb fencing/Bollard for compact sub c/w all necessary works & accessories as per TNB approval, specifications & requirement	LOT	1		
	<u>LV Infrastructure Works</u>				
K	To supply and install 200A TPN CT Meter Kiosk Weather Proof Type c/w pad lock, epoxy coated painting, plinth and 2 way 100mm dia. HDPE Corrugated Pipe. Note : Meter Kiosk must be approve by TNB	NO	1		
L	To supply an install 4C X 95MM2 XLPE/SWA/PVC (Cu.) laid in 150mm Dia. HDPE RED FLEXIBLE TYPE for road crossing from meter kiosk to MSB with support, bracket c/w termination and any necessary accessories and etc.	M	125		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>INFRASTRUCTURE WORKS</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>COLLECTION</u> From Page B.6.3/1 From Page B.6.3/2 From Page B.6.3/3				
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>ELECTRICAL SWITCHBOARD</u> <u>(ALL PROVISIONAL)</u></p> <p>This portion of work shall be carried out by a Registered Electrical Contractor.</p> <p>All electrical infrastructure installation works must comply with Suruhanjaya Tenaga (ST) regulations, the requirements of Tenaga Nasional Berhad (TNB), Telekom Malaysia (TM), and other relevant authorities. The works shall strictly adhere to the approved drawings, specifications, and standards, ensuring proper coordination and execution to meet the satisfaction of the Supervising Officer (SO).</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Electrical Switchboard</u></p> <p>To supply, install, connect up, testing and commissioning of the following c/w cable termination and all necessary accessories as per drawing and specification.</p> <p>To supply , install and comissioning Wall Mounted Cubicle MSB c/w Base Plate at Bilik MSB (Form 2B, 50kA 1 sec) including cable terminations, CT's equipment c/w calibration certificate, MCB, MCCB, SPD class II, cut out fuses, IDMTL (Electronicsbased), earthing system, power factor, power energy meter, capacitor bank, busbar, ammeter, voltmeter, LED indicator light, etc for all unit below (contractor need to advise the MSB dimension).</p>				
A	i) 200A TPN MSB - TERATAI	NO	1		
To Collection					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>ELECTRICAL SWITCHBOARD</u></p> <p><u>(ALL PROVISIONAL)</u></p> <p><u>Electrical Switchboard (Cont'd)</u></p> <p>To supply and install the following Distribution Board c/w MCB, MCCB, RCCB cut-off fuse, earthing, SPD, timer, bracket etc. for all unit below :- (contractor need to advise the DB dimension).</p>				
A	63A TPN DB - L	NO	1		
B	63A TPN DB - P	NO	1		
C	63A TPN DB - AC	NO	1		
D	63A TPN DB - C	NO	1		
E	63A SPN DB - T	NO	1		
F	100A TPN Industrial Distribution Socket box with controller	NO	1		
G	32A TPN CP-WFP/01	NO	1		
H	32A TPN CP-WFP/02	NO	1		
To Collection					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>ELECTRICAL SWITCHBOARD</u> <u>(ALL PROVISIONAL)</u>				
	<u>COLLECTION</u>				
	From page B.6.4/1	.	.	.	
	From page B.6.4/2	.	.	.	
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>INTERNAL SUBMAIN WRING</u> <u>(ALL PROVISIONAL)</u></p> <p>This portion of work shall be carried out by a Registered Electrical Contractor.</p> <p>All electrical infrastructure installation works must comply with Suruhanjaya Tenaga (ST) regulations, the requirements of Tenaga Nasional Berhad (TNB), Telekom Malaysia (TM), and other relevant authorities. The works shall strictly adhere to the approved drawings, specifications, and standards, ensuring proper coordination and execution to meet the satisfaction of the Supervising Officer (SO).</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Internal Submain Wiring</u></p> <p>To supply, install, connect up, testing and commissioning of the following c/w cable termination and all necessary accessories as per drawing and specification.</p> <p>Laman Teratai</p> <p>Sub-Main Cabling from MSB - TERATAI to following DB c/w cable termination and all necessary accessories as per drawing and specification :</p> <p>A 4 x 1C 25mm² PVC/PVC (cu) Cable in Hot Dipped Galvanised Trunking from MSB-TERATAI to :-</p> <p>i) DB - L</p> <p>ii) DB - P</p> <p>iii) DB - AC</p> <p>iv) DB - C</p>				
		M	50		
		M	50		
		M	50		
		M	200		
To Collection					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>INTERNAL SUBMAIN WRING</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Internal Submain Wiring (Cont'd)</u> Laman Teratai (Cont'd)				
A	2 x 1C 25mm ² PVC/PVC (cu) Cable in Hot Dipped Galvanised Trunking from MSB-TERATAI to :- i) DB - T	M	200		
B	1 x 4C 50mm ² XLPE/SWA/PVC (cu) Cable laid underground from MSB-TERATAI to:- i) Industrial Distribution Socket Box With Controller	M	1,500		
C	1 x 1C 25mm ² PVC/SWA/PVC (cu) Cable laid underground from MSB-TERATAI to :- i) CP-WFP/01	M	400		
D	1 x 2C 16mm ² PVC/SWA/PVC (Cu.) Cable laid underground from MSB-TERATAI to :- i) CP-WFP/02	M	400		
To Collection					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>INTERNAL SUBMAIN WRING</u> <u>(ALL PROVISIONAL) (Cont'd)</u></p> <p><u>COLLECTION</u></p> <p>From page B.6.5/1</p> <p>From page B.6.5/2</p>				
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>INTERNAL ELECTRICAL WIRING AND FITTING</u> <u>(ALL PROVISIONAL).</u></p> <p>This portion of work shall be carried out by a Registered Electrical Contractor.</p> <p>All electrical infrastructure installation works must comply with Suruhanjaya Tenaga (ST) regulations, the requirements of Tenaga Nasional Berhad (TNB), Telekom Malaysia (TM), and other relevant authorities. The works shall strictly adhere to the approved drawings, specifications, and standards, ensuring proper coordination and execution to meet the satisfaction of the Supervising Officer (SO).</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Electrical Wirings & Fittings</u></p> <p>To supply, install, connect up, testing and commissioning of the following c/w cable termination and all necessary accessories as per drawing and specification.</p> <p>Laman Teratai</p> <p>Final Sub-Circuit Wiring Work</p>				
A	Final Sub-Circuit wiring using 2 x 1.5 mm ² /1C PVC copper cable c/w green wire run in UPVC concealed conduit/surface G.I. conduit c/w 10A switches flush type for :-				
	i) Lighting Point	NO	80		
	ii) Emergency Light Point	NO	11		
	iii) Keluar Sign Point	NO	15		
B	Final Sub-Circuit wiring using 2 x 2.5 mm ² /1C PVC copper cable c/w green wire run in UPVC concealed conduit/surface G.I. conduit c/w 10A switches flush type for :-				
	i) Lighting Point	NO	34		
C	Final Sub-Circuit wiring using 2 x 2.5 mm ² /1C PVC copper cable c/w green wire run underground in 50mm Corrugated pipe c/w 10A switches flush type for :-				
	i) Lighting Point	NO	56		
D	Final Sub-Circuit wiring using 2 x 1.5 mm ² /1C PVC copper cable c/w green wire run in UPVC concealed conduit/G.I. conduit expose c/w 10A switches flush type for :-				
	i) Wall Fan Point c/w all accessories	NO	3		
	ii) Industrial Wall Fan Point c/w all accessories	NO	22		
	iii) Ceiling Fan Point c/w all accessories	NO	2		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>INTERNAL ELECTRICAL WIRING AND FITTING</u> <u>(ALL PROVISIONAL). (Cont'd)</u>				
	<u>Electrical Wirings & Fittings (Cont'd)</u>				
	Laman Teratai (Cont'd)				
	Final Sub-Circuit Wiring Work (Cont'd)				
A	Final Sub-Circuit wiring using 2 x 2.5 mm ² /1C PVC copper cable c/w green wire run in UPVC concealed conduit/surface G.I. cond and include plate switches for :-				
	i) 13A SSO flush wall mounted type	NO	22		
	iii) 13A SSO Metalclad type	NO	12		
B	Final Sub-Circuit wiring using 2 x 4 mm ² /1C PVC copper cable c/w green wire run in UPVC concealed conduit/surface G.I. cond and include plate switches for :-				
	i) 13A SSO flush wall mounted type	NO	20		
C	Final Sub-Circuit wiring using 2 x 2.5 mm ² /1C PVC copper cable c/w green wire run underground in 50mm Corrugated pipe and include plate switches for :-				
	i) 13A SSO flush wall mounted type	NO	1		
	ii) 13A SSO Weatherproof type	NO	6		
	iii) 20A SPN Isolator Weatherproof	NO	1		
D	Final Sub-Circuit wiring using 2 x 4.0 mm ² /1C PVC copper cable c/w green wire run in UPVC concealed conduit/surface G.I. cond and include plate switches and 20A switches flush for :-				
	i) 15A SSO Air Cond Point	NO	8		
E	Light Fittings				
	i) 1 x 100W LED Low Bay, Type 1	NO	21		
	ii) 1 x 26W LED Downlight Surface, Type 4	NO	41		
	iii) 1 x 26W LED Bare Channel, Type 5	NO	14		
	iv) 1 x 18W LED Bare Channel, Type 6	NO	8		
	v) LED Emergency Light	NO	12		
	vi) LED Keluar Sign	NO	11		
	vii) 16" Wall Fan	NO	2		
	viii) 26" Industrial Wall Fan	NO	22		
	ix) 100W LED Floodlight, Type 8	NO	4		
	x) Outdoor Weatherproof String Light c/w LED Bulb, Type 7	M	50		
	xi) Outdoor Weatherproof String Light c/w LED Bulb, Type 2	M	200		
	xii) 1 x 26W Wall light, Type 3	NO	1		
	xiii) 1 x 80W LED Low Bay, Type 9	NO	9		
	xiv) Outdoor Weatherproof LED strip Light	M	200		
	xv) 1 x 6W LED Underwater light	NO	47		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>INTERNAL ELECTRICAL WIRING AND FITTING</u> <u>(ALL PROVISIONAL). (Cont'd)</u></p> <p><u>COLLECTION</u></p> <p>From Page B.6.6/1</p> <p>From Page B.6.6/2</p>				
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>COMPOUND LIGHTING SYSTEM (ALL PROVISIONAL)</u></p> <p>This portion of work shall be carried out by a Registered Electrical Contractor. All street lighting system installation works must comply with the relevant local authority regulations, the approved drawings, and specifications. The system shall be designed and installed to provide adequate illumination for public roads, walkways, and other designated areas. The works shall ensure proper coordination with the Local council, adherence to safety standards, and functionality as per the project requirements. The works shall meet the satisfaction of the Supervising Officer (SO).</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>LIGHTING COLUMN</u></p> <p>A 9 meter height, flanged type hot dip galvanised octagonal steel column c/w 1.5m double arm, concrete base / foundation c/w J-bolt, service door (as per drawing and Local Authority requirement) c/w customise bracket to suit the lamp holder, other accessories as per specifications and drawings.</p> <p>B R.C concrete footing foundation for poles/columns c/w endorsement of P.E C&S, galvanized type J bolt and nuts, through hole and encased 100mm dia. PVC pipe for any underground cable entry.</p> <p>C Solid earthing system using 2 x 25mm x 3mm copper tape, 16mm dia. X of 1500mm (L) copper jacketed steel core earth electrode & precast heavy duty concrete earth chamber c/w removable cover and all other accessories to complete installation. Independent earthing system for lighting column to achieve below 3 ohm.</p> <p><u>LUMINAIRE</u></p> <p>D High quality 120W Solar street light LED luminaire c/w high efficient super cell solar panel, Adjustable angle bracket, Electronic Control Gear (LED Driver) and Ingress Protection at least IP 65 for optical compartment, 12hrs motion sensor control controller, Intelligent Remote Control, rechargeable battery up to 200 time & other necessary accessories.</p>				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>COMPOUND LIGHTING SYSTEM (ALL PROVISIONAL)</u> <u>(Cont'd)</u></p> <p><u>COLLECTION</u></p> <p>From Page B.6.7/1</p>				
TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>LIGHTNING PROTECTION SYSTEM</u> <u>(ALL PROVISIONAL)</u></p> <p>This portion of work shall be carried out by a Registered Electrical Contractor.</p> <p>All lightning protection system installation works must comply with the relevant standards, including Suruhanjaya Tenaga (ST) regulations, SIRIM standards, and the approved drawings and specifications.</p> <p>The system shall be properly designed and installed to protect the building and its electrical systems from lightning strikes, ensuring compliance with safety requirements. The works shall meet the satisfaction of the Supervising Officer (SO) and be ready for testing and commissioning as per project requirements.</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Lighting Protection System (For All Buildings)</u></p> <p>To supply, install, connect up, testing and commissioning of the following c/w cable termination and all necessary accessories as per drawing and specification.</p>				
A	1 nos Copper tape 25mm x 3mm to run above the roof c/w brass saddle and clamp as per drawing	LOT	1		
B	Copper clade earth electrode 15mm c/w brass joint sleeve, clamp and heavy duty concrete chamber (furse type) as per drawing for lightning earthing system.	LOT	1		
C	Test clamp c/w flush type box with glass cover as per specification and drawing.	LOT	1		
D	50mm x 25mm UPVC ducting from test clamp for copper strip protection and others accessotires.	LOT	1		
E	Lightning terminal as per drawing to specialist detail and other related accessories	LOT	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>LIGHTNING PROTECTION SYSTEM</u> <u>(ALL PROVISIONAL) (Cont'D)</u>				
A	Heavy duty inspection chamber with removable cover and label (follow JKR specification)	LOT	1		
B	Connection of the copper tape/cable to the Earthing electrode shall be by exothermic Welding system (CADWELD/FURSEWELD)	LOT	1		
	<u>Earthing For Electrical System</u>				
C	Earthing System for Electrical System, all MSB, SSB & DB and electrical end circuit as per IEEE/JKR specification and requirements comprising of the following:- a. Earthing Bar using 50mm x 6mm tinned copper Bar b. Main Earthing Bar using 50mm x 6mm tinned copper bar mounted on porcelain insulators c/w transparent protective cover and housing c. Earthing conductors using 2 x 25mm x 3mm tinned copper tape d. Copper jacketed steel core rods as earthing electrodes 16mm dia. x 1500mm plumbed joint to earthing conductors. e. Earthing spike using 2 nos earth electrode and 2.5 mm sq PVC insulated cable. f. Heavy Duty inspection chamber with Removable cover and label g. Connection of the copper tape/cable to the Earthing electrode shall be by exothermic Welding system (CADWELD/FURSEWELD)	LOT	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>LIGHTNING PROTECTION SYSTEM</u> <u>(ALL PROVISIONAL) (Cont'D)</u> <u>COLLECTION</u> From Page B.6.8/1 From Page B.6.8/2				
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>EXTRA LOW VOLTAGE (ALL PROVISIONAL)</u></p> <p>This portion of work shall be carried out by a Registered Electrical Contractor.</p> <p>All Extra Low Voltage (ELV) system installation works must comply with the relevant regulations, including Suruhanjaya Tenaga (ST) standards, the approved drawings, and specifications. The ELV system shall include but not be limited to public address systems, data and communication systems, CCTV, and other low-voltage systems. The installation shall ensure proper coordination, adherence to safety standards, and functionality in line with the project's requirements. The works shall meet the satisfaction of the Supervising Officer (SO).</p> <p>All price quoted are for the complete supply, delivery to site, and installation of the relevant items, including all necessary accessories, parts and tools to effect complete installation for the items concerned as shown in the drawings and specifications.</p> <p>Note: Except for preliminary, testing and commissioning works which are quoted separately.</p> <p><u>Telephone Distribution Panel</u></p> <p>To supply and install Fiber Termination Box (FTB) c/w crone tag block, mounting frame and termination of cable as per drawing and specification c/w quick connect lightning arrestor SPD and other necessary accessories (lockable doors)</p>				
A	8 port Termination Box	NO	1		
	<p><u>Main Cabling For Telephone</u></p>				
B	To supply and install fibre termination box (FTB) c/w accessories using 8 core telephone cable laid in GI trunking from FTB to FWS	M	20		
	<p><u>Internal Cabling For Telephone</u></p>				
C	To supply and install fiber wall socket (FWS) c/w accessories using 2 core telephone cable concealed in Upvc conduit/laid in trunking mounting frame and termination of cable as per drawing and specification c/w quick connect lightning arrestor SPD and other necessary accessories	NO	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTRA LOW VOLTAGE</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>Internal Cabling For Telephone (Cont'd)</u>				
A	To supply and install 2 pairs wire/0.63mm telephone cable in HDGI conduit/ trunking	LOT	3		
	<u>DATA NETWORK WORKS</u>				
B	9U Equipment Rack c/w power supply (8 nos 13A s/s/o) , 24/48-port UTP patch panel vertical and horizontal cable management, ventilation fans, lockable lift-off perforated side panels, Bee Hive door perforated frame panel door, 2 nos equipment trays, 1 x 12-port fiber optics patch panel with Fiber Management Kit c/w LC/SC couplers, perforated enclose base panel.	NO	1		
C	48-port UTP patch panel vertical c/w horizontal cable management	NO	1		
D	48-port GigE, 4 x 1G SFP port, LAN Base, Stacking Module Stacking Cable, c/w necessary accessories	NO	1		
E	Indoor 802.11ax dual band wireless access point, 4x4 MIMO, internal/external antenna, 2Gbps combined maximum data rate, 400 maximum clients, support flexible deployment mode, POE support, c/w license and necessary accessories.	NO	4		
F	1kVA 230V rack mount UPS c/w power cable and necessary accessories	NO	1		
G	Supply , install and terminate data point using UTP Cat 6 (EIA/TIA) in galvanised metal trunking and concealed GI conduit c/w metalclad back box, modular type RJ45 jack at patch panel and single faceplate and spare data point.	NO	5		
H	Supply and install 2 meter length UTP Cat 6 (EIA/TIA) factory terminated patch cords c/w RJ45 connectors and boots from patch panel to network switch.	NO	15		
J	Supply and install UTP Cat 6 (EIA/TIA) factory terminated patch cords c/w RJ45 connectors and boots from faceplate to workstation.	NO	15		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTRA LOW VOLTAGE</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>DATA NETWORK WORKS (Cont'd)</u>				
A	Testing and commissioning of the whole ICT equipments, software and systems above including pretest by the contractor for each component and complete component and functional and component test with Client . Contractor is required to provide the test sheet to be approved by Consultant / Client.	LOT	1		
	<u>TELEPHONE SYSTEM</u>				
B	To supply and install KEY-PHONE System with capacity up to 1 CO line, 10 Extension, Call Forwarding, Voicemail, licensed etc c/w surge protection device and other necessary accessories.	LOT	1		
C	To supply and install Tel Point and Fax Point socket outlet c/w accessories using 2 pairs wire / 0.63mm grey telephone cable concealed in G.I trunking and conduit c/w bracket and accessories	NO	1		
D	To supply and install telephone set c/w extension cable & accessories	NO	1		
E	Fiber Wall Socket (TM Approved) loaded with SC/UPC simplex adapterw/shutter and laser warning sign (Dimension: 86mm x 86mm x 25mm)	NO	1		
F	Fiber Termination Box c/w 1 SC/UPC adaptor at backlane, TM approved.	NO	1		
G	2 core SM Fiber Optic cable from FTB to FWS c/w splicing at both end	LOT	1		
H	To supply and install RJ11 & Cat6 cable as per drawing.	LOT	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTRA LOW VOLTAGE</u> <u>(ALL PROVISIONAL) (Cont'd)</u>				
	<u>CCTV SYSTEM</u>				
A	1/2.8" CMOS Day/Night IP Indoor & Outdoor Bullet Camera c/w HD 1080p resolution @ 30 fps, PoE, 2.7-12mm automatic varifocal lens, Tamper, video motion and audio detection, Minimum illumination color: 0.052 lux; mono: 0.008 lux with IR: 0 lux, Intelligent dynamic noise reduction(IDNR), Full configurable H.265 multi-streaming, Memory card slot support up to 2TB IP 66 and IK08 certified and 3 years warranty	NO	14		
B	1/2.8" CMOS Day/Night IP Indoor Dome Camera c/w HD 1080p resolution @ 30 fps, PoE, 2.7-12mm automatic varifocal lens, Tamper, video motion and audio detection, Minimum illumination color: 0.052 lux; mono: 0.008 lux with IR: 0 lux, Intelligent dynamic noise reduction(IDNR), Full 5 configurable H.26 multi-streaming, Memory card slot support up to 2TBIP 66 and IK08 certified and 3 years warranty	NO	5		
C	Network Video Recoder 24 Channel c/w All-in-one recording Video Managemen System solution for IP surveillance systems, c/w Video Recording ManagerIP channels c/w Pre-licensed Client Workstations Software	LOT	1		
D	Video Storage HDD c/w iSCSi Disk Array & Video Recording Manager c/w 'RAID-5 / RAID-6 protected, Complete with 4 X 8TB storage capacity, Video Recording Manager and 3 years warranty (90 days storage)	NO	1		
E	Application Server for Video Management System Software c/w Windows 7 Ultimate Edition 64 bit, HP Proliant DL360 G9 c/w 4 Cores, 32Gb RAM, 2 x 120 GB SSD (RAID 5), 4 x 1GBps LAN Ports, 500W PSU, Windows Server 2012 R2 Licenses, Dual port Gigabit server adapter, Protected by HP Services, Complete with mouse,keyboard and accessories and 3 years warranty	NO	1		
F	Client Workstation for Management Software c/w At least Windows 10 Pro, Intel Core i5 (10th Gen or newer) CPU, 8 GB DDR4-2333 RAM, Integrated GPU (Intel UHD Graphics), 1k Base-T network card, 1000 Mbps Ethernet Support, Storage of 2TB hard disk drive Complete with mouse, keyboard and monitor	NO	1		
	TO COLLECTION				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>EXTRA LOW VOLTAGE</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>COLLECTION</u> From Page B.6.9/1 From Page B.6.9/2 From Page B.6.9/3 From Page B.6.9/4 From Page B.6.9/5				
	TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>TESTING AND COMMISSIONING FOR ELECTRICAL SYSTEM</u> <u>(ALL PROVISIONAL)</u></p> <p><u>Testing & Commissioning For LV & ELV System</u></p> <p>On completion of the electrical LV & ELV installation, test all cable, G.I piping, fitting etc. as described in JKR Specification, and TM Specification make good everything in perfect working order to entire satisfaction of the S.O and local authorities</p>				
A	To inspect and carry out testing & commissioning procedures for the above system :- a) Continuity Test b) Earthing Test c) Insulation and Resistance Test or etc and submit 4 sets Endorse Testing Result	LOT	1		
B	Testing and Calibration for all overcurrent, earth fault, earth leakage relay and power factor regulator by certified competent engineers	LOT	1		
C	Liasion with Tenaga Nasional Berhad for Obtaining power supply, Cas Sambungan Pengguna & Meter Deposit and submission of Form G & H (under Form A) to TNB for meter Application.	L/S	-		
D	Liasion with Telekom Malaysia (TM) for Obtaining telecommunication infra cabling system, fee for plan approval and acception test for manhole.	L/S	-		
E	Liasion with Majlis Daerah/Koridor Utiliti Johor(KUJ) for	L/S	-		
	<u>Handing Over</u>				
F	Four (4) sets of Operation & Maintenance Manual for handing over purpose include with :-	L/S	-		
G	Guide for Operation & Maintenance the system c/w summary of the installation equipment	L/S	-		
H	Two (2) sets of Shop Drawing	L/S	-		
J	Four(4) sets of As Built Drawing hard & soft copy	L/S	-		
K	24 months guarantee and maintenance services defect liability period after the date of practical completion of all infra works.	L/S	-		
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<p><u>TESTING AND COMMISSIONING FOR ELECTRICAL SYSTEM</u> <u>(ALL PROVISIONAL) (Cont'd)</u></p> <p><u>Others</u></p> <p>A All other works or equipment which not covered by the above item but are required or indicated in the drawing and specifications to complete the works as whole absorbed in the various breakdown item above (if stated and allowed) herein shall be deem to be included or (please specify) :-</p> <p>a)</p> <p>b)</p> <p>c)</p>				
	To Collection				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (RM)
	<u>TESTING AND COMMISSIONING FOR ELECTRICAL SYSTEM</u> <u>(ALL PROVISIONAL) (Cont'd)</u> <u>COLLECTION</u> From Page B.6.10/1 From Page B.6.10/2				
	TO SUMMARY				

BILL NO. 6 - MECHANICAL & ELECTRICAL WORKS

ITEM	DESCRIPTION	FROM PAGE	AMOUNT (RM)
	<u>SUMMARY</u>		
	<u>ALL PROVISIONAL</u>		
1	AIR CONDITIONING AND MECHANICAL VENTILATION SYSTEM	B.6.1/3	
2	COLD WATER AND SANITARY PLUMBING SYSTEM	B.6.2/5	
3	INFRASTRUCTURE WORKS	B.6.3/4	
4	ELECTRICAL SWITCHBOARD	B.6.4/3	
5	INTERNAL SUBMAIN WIRING	B.6.5/3	
6	INTERNAL ELECTRICAL WIRING AND FITTING	B.6.6/3	
7	COMPOUND LIGHTING SYSTEM	B.6.7/2	
8	LIGHTNING PROTECTION SYSTEM	B.6.8/3	
9	EXTRA LOW VOLTAGE SYSTEM	B.6.9/6	
10	TESTING AND COMMISSIONING FOR ELECTRICAL SYSTEM	B.6.10/3	
	TOTAL CARRIED TO GENERAL SUMMARY		